Missouri Assessment Program-Alternate (MAP-A)

2014
Technical Report

DEVELOPED BY
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University of Missouri/Assessment Resource Center
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Contents

Contents (contd.)

Overview

The purpose of this report is to document the technical aspects of the 2013-2014 Missouri Assessment Program-Alternate (MAP-A) assessment. This was the eighth year of the MAP-A program in its current design. In the spring of 2014 students in grades 3 through 8, 10, and 11 participated in the MAP-A as follows:

- Grades 3 & 4: Mathematics and communication arts;
- Grade 5: Mathematics, communication arts, and science;
- Grades 6 & 7: Mathematics and communication arts;
- Grade 8: Mathematics, communication arts, and science;
- Grade 10: Mathematics only;
- Grade 11: Communication arts and science.

Mathematics and communication arts MAP-A assessments have been operational since 2006. The science assessment for MAP-A was developed and piloted in 2007 and became operational in 2008. This report provides information about the technical quality of the mathematics, communication arts and science assessments, including a description of the processes used to develop, administer, and score the MAP-A, and how the scores are reported and analyzed.

Organization of the Report

The organization of this report is based on the conceptual flow of an assessment's life span. It begins with an overview of the initial test specifications and addresses all the intermediate steps that lead to final score reporting. The second section addresses the general design of the MAP-A, the ongoing development process, the specific designs of the communication arts, mathematics, and science assessments, the MAP-A format, and the administration of the assessment. The third section addresses scoring and reporting of MAP-A results. The fourth section addresses the reliability and validity of the MAP-A. The fifth section addresses security of MAP-A information. The report also includes a description of the state's future plans for the assessment, along with references and appendices as appropriate.

This report describes several technical aspects of the 2014 MAP-A in an effort to contribute to the accumulation of validity evidence to support MAP-A score interpretations. Because it is the interpretations of scores that are evaluated for validity, not the assessment itself, this report presents documentation to substantiate intended interpretations (AERA, 1999). In the case of the MAP-A, however, construct validity is a major factor in score interpretation. The information in this report contributes important information to the validity assertion by addressing the following aspects of the MAP-A:

- Design and alignment with Missouri's standards;
- Administration;
- Scoring;
- Reporting;
- Achievement levels.

Purpose of the MAP-A

The Individuals with Disabilities Education Act (IDEA) requires that students with disabilities be included in each state's system of accountability and that students with disabilities have access to the general curriculum. The No Child Left Behind Act (NCLB) also speaks to the inclusion of all children in a state's accountability system by requiring states to report student achievement for all students as well as for groups of students on a disaggregated basis. These federal laws reflect an ongoing concern about equity. All students should be academically challenged and taught to high standards; all students should be involved in the educational accountability system.

To ensure the participation of all students in the state's accountability system, the Missouri Department of Elementary and Secondary Education (DESE) has developed the MAP-A. Only IDEA-eligible students with the most significant cognitive disabilities are expected to participate in the MAP-A. Students with moderate disabilities participate in the standard MAP Grade-Level and End-of-Course assessments, with appropriate accommodations.

The MAP-A is a portfolio-based assessment that measures student performance based on alternate achievement standards. The MAP-A is aligned with Missouri's Show-Me Standards, Grade Level Expectations (GLEs) and Alternate Grade Level Expectations (AGLEs) in communication arts, mathematics, and science. Missouri educators worked with DESE and its contractor, Measured Progress, to develop and review the AGLEs and to design the assessment blueprint for alternate assessment of eligible Missouri students.

MAP-A results are intended to inform stakeholders about student achievement on Missouri's communication arts, mathematics, and science standards and AGLEs. The results should be used for program and instructional improvement and as a component of school accountability.

The MAP-A assesses student performance on two Alternate Performance Indicators (APIs) in each of two content-area strands in communication arts and two content-area strands in mathematics. It also assesses performance on four APIs in science, which are selected from six strands. Teachers observe and assess a student's performance and collect evidence in each strand during two distinct collection periods. The assessment effectively links standards, curriculum, instruction, and assessment and is scored using three criteria: 1) level of accuracy, 2) level of independence, and 3) connection to the standards. The collected evidence provides documentation of a connection between the Show-Me Standards and instruction.

Development of the MAP-A

Considering the needs of Missouri's assessment programs at the time, among them efforts to ensure participation of all students in the state's accountability system, alignment of assessments with Missouri's Show-Me Standards and GLEs, and continued improvement to the state's assessment program, DESE called for a redesign of the MAP-A in 2004. The redesigned assessment was intended to meet the needs of students and teachers while complying with the requirements of the federal government.

A general description of the assessment development and standard-setting processes for MAP-A mathematics, communication arts, and science assessments follows. For more detailed information about the assessment development, please refer to Appendix A, Mathematics and

Communication Arts Assessment Development Process, and Appendix B, Science Pilot Assessment Development Process.

Mathematics and Communication Arts

The MAP-A was developed as a collaborative project by Measured Progress, the Assessment Resource Center (ARC) and DESE divisions of Curriculum and Assessment and Special Education. Mathematics and communication arts development began in the 2004-2005 academic year with the discussions of the MAP-A Advisory Committee, made up of stakeholders that included parents, teachers, and school administrators. In addition to this committee, the contractor and DESE called together groups of Missouri educators several times to participate in the development and review process. Special education and general education teachers made up the review groups that developed the AGLEs, in cooperation with DESE and Measured Progress assessment and content specialists. They used the Missouri Show-Me Standards and the Grade Level Expectations (GLEs) to draft and revise AGLEs, which were in turn the basis for the APIs used for assessment with the MAP-A. Prior to their adoption, the AGLEs and APIs were presented to district personnel for review and comment.

After considering concerns expressed by the MAP-A Advisory Committee, chief among which was the paperwork burden on teachers, DESE and Measured Progress drafted an assessment blueprint and piloted mathematics and communication arts assessments. Missouri's Technical Advisory Committee (TAC) reviewed the blueprint prior to administration of the pilot.

In February 2005, the teachers recruited to pilot mathematics and communication arts were required to attend one of four training sessions delivered at various locations around the state. A total of 164 pilot assessments were administered March-April 2005. Pilot teachers provided feedback to the developers through direct contact and responses to a survey administered to each. The pilot assessments were scored in May 2005 at ARC. Measured Progress led table leader training. Sessions were attended by ARC staff and DESE staff. Scorers were asked to provide feedback through a survey administered following the training and scoring.

DESE considered the feedback and suggestions provided by pilot teachers and scorers, along with the input of its advisory groups to make refinements to the MAP-A prior to its initial operational assessment year, 2005-2006. Clarifications were made to training materials and the development of additional samples for teachers was planned. The most significant change, however, was made to the blueprint. In response to serious concerns from teachers about the workload and ability to assess the nine strands in each content area, the number of strands required for assessment at each grade span was decreased from nine to four.

Following the initial operational administration, Measured Progress conducted a standard-setting meeting in Columbia in June 2006 to set cut scores that would be used to determine achievement levels for mathematics and communication arts. Eighty-three panelists, divided into six grade-span and content-area groups, participated in the three-day meeting. Measured Progress employed the modified Body of Work Method, in which panelists are presented with a set of actual student work and are asked to determine which performance level best matches the skills and abilities evidenced in the student work sample.

Individual participants were recruited by Measured Progress and ARC with the goal of empanelling a demographically diverse group that represented a mix of parents, special education teachers, communication arts and mathematics content teachers, and school

administrators. DESE exercised final approval over panelist selection. At the beginning of the meeting, all panelists attended a large-group training containing an overview of the MAP-A, participation criteria, administration information, scoring procedures, overview of the standard-setting process and related issues, and finally specific training about the tasks required of panelists. Following this training, the large group broke into grade-level panels which were led through their tasks over the three-day meeting by a trained facilitator from Measured Progress.

The standard-setting process included three rounds of panelist review. The first consisted of achievement level descriptors review and discussion, review of assessment submissions, and individual cut-point recommendation. The second and third rounds consisted of individual cut-point recommendation after extensive group discussion. Within each round, the panelists first made the middle (Basic-Proficient) cut, then sorted the below Proficient group into Below Basic and Basic, and finally sorted the second group by determining an upper (Proficient-Advanced) cut. Following the second round, the percentage distribution of achievement level impact data was presented to the groups by Measured Progress's psychometrician, to assist them in their round 3 discussions. After the final round, panelists again turned their attention to the achievement level descriptors, and made recommendations for clarifications to the language.

At the conclusion of the meeting, the changes and cut scores recommended by the panelists were reviewed by Measured Progress and DESE. Measured Progress applied smoothing methods and recommended achievement level descriptors and cut-score tables to DESE for consideration by the Missouri State Board of Education. The achievement level descriptors and cut scores were approved by the board and used to generate reports and accountability information for the 2005-2006 school year.

Detailed information about the standard-setting process may be found in the June 2006 MAP-A Standard Setting Report at the DESE website, http://dese.mo.gov/college-career-readiness/assessment/assessment-technical-support-materials.

Science

The development of the science assessment began in the 2006-2007 school year. In addition to the MAP-A Advisory Committee, a Science Assessment Development and Review Committee, also made up of stakeholders that included parents, teachers, and school administrators, provided input to the development process. The AGLE/API development process followed much the same format as that used for the mathematics and communication arts AGLEs and APIs, as did the rest of the development process, including review and comment from groups of Missouri educators, the MAP-A Advisory Committee, and the TAC.

Pilot teacher training for 135 volunteer teachers was conducted in December 2006 at four locations in Missouri. The science pilot was administered to 92 students during the January-March 2007 window, and scored in Columbia in June 2007. As with the other two subjects, surveys were administered to pilot participants, both teachers and scorers, and their responses were considered, along with any face-to-face feedback they provided. The two ideas that emerged involved the provision of information to teachers about administering MAP-A science for two primary reasons: 1) differences in assessment requirements, and 2) teachers' concerns about their own expertise with science content. DESE and Measured Progress made plans to

address these concerns, adding additional information to training materials, providing pathways to science content specialists and planning the expansion of science samples.

Measured Progress, as it did for mathematics and communication arts, used the modified Body of Work method in the standard-setting process for science. The standard-setting meeting took place over two days in the late spring of 2008, following the first operational administration of MAP-A science assessments and followed much the same format as the June 2006 standard-setting meeting. One difference of note in the outcome of the science standard-setting is the establishment of a uniform set of cut scores across all three grade levels in science.

The MAP-A science achievement level descriptors and cut scores were approved by the Missouri State Board of Education and used to generate score reports and accountability data for the 2007-2008 school year. More information about the standard-setting process, and the science standard-setting meeting itself, may be found the DESE website, http://dese.mo.gov/college-career-readiness/assessment/assessment-technical-support-materials.

The initial MAP-A science blueprint differed from that of mathematics and communication arts. It required only two entries, but each contained an activity that addressed two APIs from two different strands. In this way, the science assessment entries paired standards from grade-level-specific science content strands and all-grade-level science process strands. In all, MAP-A science required the assessment of four strands.

NCLB requires technical documentation for all components of Missouri's statewide assessment system, including MAP-A, to be submitted to the United States Department of Education's Office of Elementary and Secondary Education for Peer Review. Following review of a report completed in December, 2009 by Human Resources Research Organization (HumRRO) of the alignment of the MAP-A Science assessment to Missouri's Show-Me Standards and the Science AGLEs, the Peer Review committee assigned to Missouri requested that the state submit a plan and timeline to address the recommendations from the report. One of these recommendations was for the state to review the Science AGLEs for grade appropriateness and accessibility.

As a result, DESE brought together a statewide committee of Missouri practitioners which included administrators of special education, general education science teachers, and special education teachers representing a wide range of grade spans and certification status. The committee spent seven days during the months of March and April 2011 reviewing the Science AGLEs for grade appropriateness and accessibility. At the conclusion of its work, the committee submitted a revised version of the Science AGLEs. After DESE review, the AGLEs were approved and the updated Alternate Performance Indicators were implemented in the 2011-2012 MAP-A testing window administration. Along with the revision of the Science AGLEs, the science blueprint was amended to include four entries, each assessing one API from one of six strands. DESE conducted a standard-setting study following the 2012 MAP-A science administration in the summer of 2012 as well as an alignment study on the MAP-A science assessment in the fall of 2012.

Detailed information about the standard-setting and alignment processes may be found at the DESE website, http://dese.mo.gov/college-career-readiness/assessment/assessment-technical-support-materials .

MAP-A Chronology

Major milestones in the MAP-A development process and subsequent administration of the MAP-A are listed in the chronology below.

1999 – 2000

- MAP-A mathematics and communication arts assessments are administered as voluntary assessments.

2000 – 2003

- MAP-A mathematics and communication arts assessments are required and administered to eligible students at ages 9, 13, and 17.

2004 – 2005

- MAP-A mathematics and communication arts assessments are administered to eligible students in grades 4, 8, and 11.
- DESE contracts with Measured Progress for development of a redesigned MAP-A to assess mathematics and communication arts.
- Development involves multiple groups of stakeholders and advisors.
- Mathematics and communication arts assessments are piloted.

2005 – 2006

- Revisions based on stakeholder feedback are made to MAP-A design.
- Operational assessment in mathematics and communication arts commences.
- MAP-A mathematics assessments are administered to eligible students in grades 3 through 8 and 10; communications arts assessments are administered in grades 3 through 8 and 11.
- Standard setting for mathematics and communication arts is conducted and the resulting cut scores are approved by the Missouri State Board of Education.
- DESE contracts with Measured Progress for development of MAP-A science assessment. Development involves multiple groups of stakeholders and advisors.

2006 – 2007

- Revisions in response to stakeholder feedback are made to MAP-A.
- Mathematics and communication arts are administered to eligible students in grades 3-8 and one grade in high school for the second year.
- The MAP-A science component is developed and piloted; Measured Progress documented the science development process. This documentation may be found in Appendix B.

2007 – 2008

- Revisions in response to stakeholder feedback are made to MAP-A.
- Mathematics and communication arts are assessed with MAP-A for the third year.
- The MAP-A science component becomes operational and is assessed at grades 5, 8, and 11.
- Measured Progress conducts standard-setting meeting for the science assessment and the resulting cut scores are approved by the Missouri State Board of Education.

2008 – 2009

- Updates and revisions in response to stakeholder feedback are made to MAP-A training materials and resources.
- Mathematics and communication arts are assessed with MAP-A for the fourth year; science is assessed with the MAP-A for the second year.
- DESE offers MAP-A scoring training to teachers administering the MAP-A as professional development.

2009 – 2010

- Updates and revisions in response to stakeholder feedback are made to MAP-A training materials and resources.
- Mathematics and communication arts are assessed with MAP-A for the fifth year; science is assessed with the MAP-A for the third year.
- Supplemental professional development is offered through Regional Professional Development Centers to teachers in the form of MAP-A scoring training.
- Science alignment study is conducted by HumRRO

2010-2011

- Updates and revisions in response to stakeholder feedback are made to MAP-A training materials and resources.
- Mathematics and communication arts are assessed with MAP-A for the sixth year; science is assessed with the MAP-A for the fourth year.
- Science AGLE revision is conducted by DESE.

2011-2012

- Updates and revisions in response to stakeholder feedback are made to MAP-A training materials and resources.
- Mathematics and communication arts are assessed with MAP-A for the seventh year; science is assessed with the MAP-A for the fifth year.
- Science AGLE revision is approved by DESE.
- Amended science blueprint is implemented.
- Pearson conducts standard-setting meeting for the science assessment and the resulting cut scores are approved by the Missouri State Board of Education.
- Science alignment study is conducted by HumRRO.

2012-2013

- Updates and revisions in response to stakeholder feedback are made to MAP-A training materials and resources.
- Mathematics and communication arts are assessed with MAP-A for the eighth year; science is assessed with the MAP-A for the sixth year.

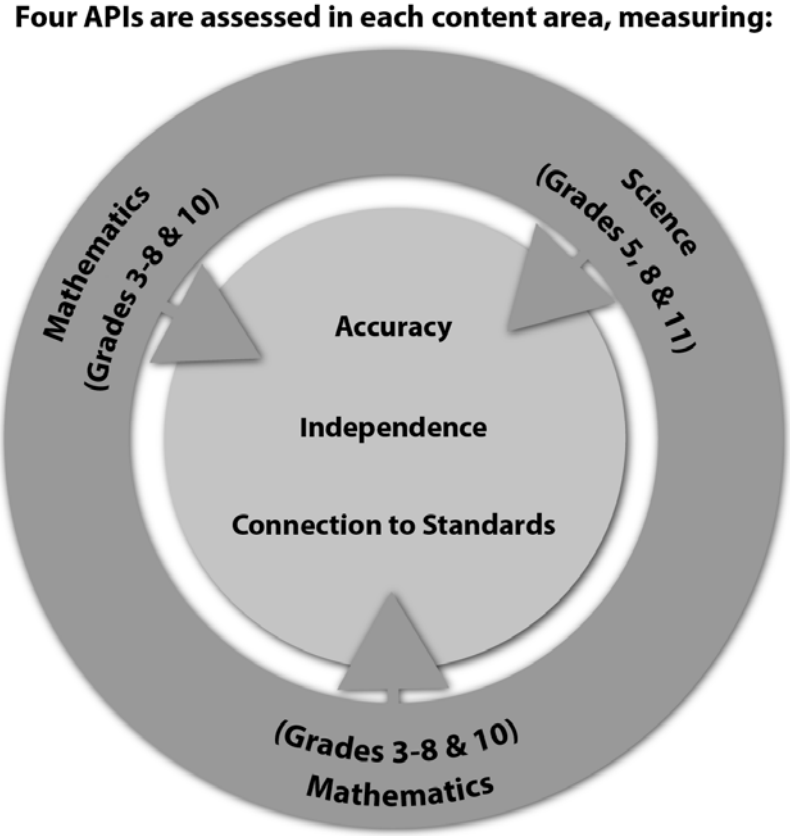
2013-2014

- Updates and revisions in response to stakeholder feedback are made to MAP-A training materials and resources.
- Mathematics and communication arts are assessed with MAP-A for the ninth year; science is assessed with the MAP-A for the seventh year.

Introduction to the MAP-A Process

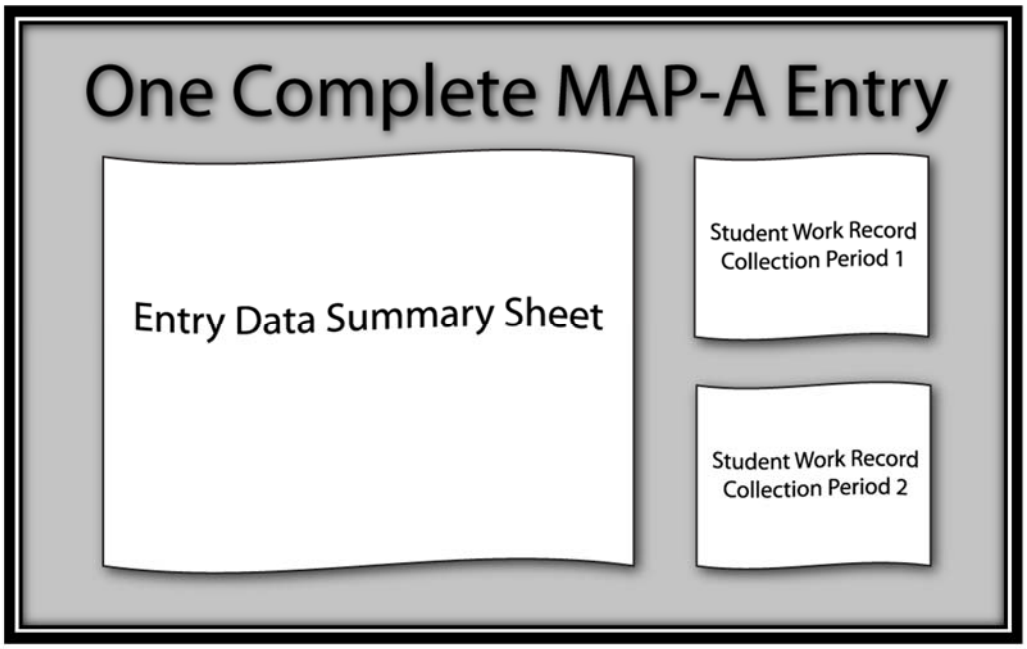
The MAP-A calls for information about the performance of students with significant cognitive disabilities on assessment activities designed and implemented by their teachers. The assessment activities are designed to provide evidence of student knowledge and ability in mathematics, communication arts, and science. The MAP-A assesses accuracy, independence, and connection to the standards on four APIs in each subject.

Figure 1. MAP-A Assessment Design



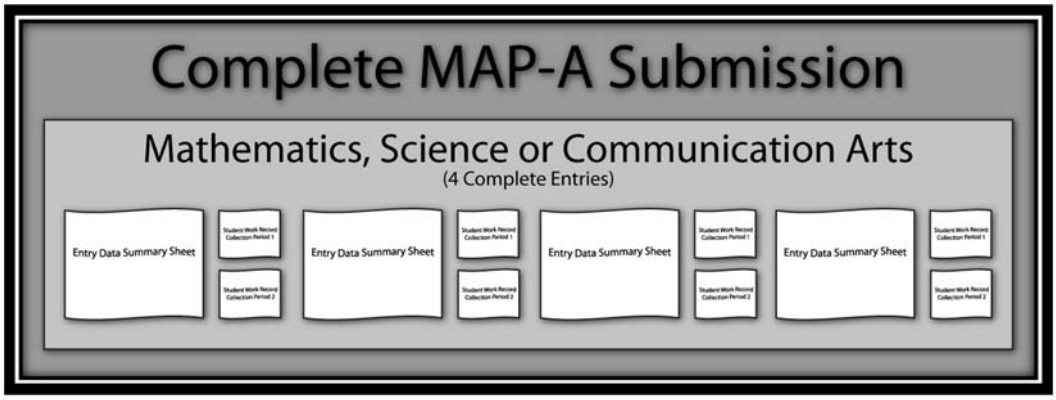
Teachers design activities to assess these APIs; they are trained to build their activities to align with the standards to assess and the student's highest academic functioning level. Activity descriptions for each API are submitted in Student Work Record forms in the student's binder. Teachers record data for an API three times during each of two collection periods, altogether producing six data points and two Student Work Records for that entry. These data points are averaged together on an Entry Data Summary Sheet to create that entry's Accuracy and Independence percentages.

Figure 2. MAP-A Entry



Each complete MAP-A mathematics, communication arts, and science submission contains four entries (one for each API).

Figure 3. MAP-A Submission



All submissions for a student's MAP-A are combined in that student's binder along with a Table of Contents Checklist and Validation Form. Completed binders are returned to ARC for processing and scoring.

Scorers review submitted binders and assign rubric scores to each entry. These scores correspond to student Level of Accuracy and Level of Independence averages provided by teachers. A Connection to the Standards rubric score is determined by considering whether the assessment activity connects to the API and if the activity demonstrates application of the skill in the API. When scoring irregularities occur (e.g., no connection to the API, missing documentation), scorers record the appropriate comment codes as well as the rubric score. Final entry rubric scores are added together to create the raw score for each content area. DESE-approved cut scores are

used to assign achievement levels for each assessment.

Table 1. Condensed MAP-A Rubric

Rubric	Score-Point 4	3	2	1	No Score
Level of Accuracy	76-100%	51-75%	26-50%	0-25%	Entry contains insufficient evidence to score.
Level of Independence	76-100%	51-75%	26-50%	0-25%	Entry contains insufficient evidence to score.
Connection to the Standards		Entry contains evidence of applying the API in two standards-based activities, one per collection period.	Entry contains evidence of applying the API in one standards-based activity, one out of two collection periods.	Entry contains some evidence of a connection to the API.	Entry contains insufficient evidence of connection to the API.

Teachers and individuals familiar with MAP-A administration and evaluation routinely use many acronyms and terms that may be unfamiliar to all readers. Several common terms are outlined below.

Table 2. Common MAP-A Terms

Term	Definition
Acquisition	Activities that demonstrate acquisition focus on practicing skills rather than applying them for a purpose.
AGLE	Alternate Grade Level Expectations
API	Alternate Performance Indicators
Application	Activities that demonstrate application require the student to apply skills for purposes other than practicing.
CTS	Connection to the Standards
Entry	A student binder component that includes an Entry/Data Summary Sheet, two Student Work Records, and optional Student Work samples.
IEP	Individualized Education Program
Validation Form	A student binder component that includes the student's mode of communication, the names of individuals who reviewed and/or contributed to the development or administration of the student's MAP-A, and the signature of the administrator who approved the binder for final submission.
Work Record	An entry component that contains the Task/Activity, Level of Accuracy, and Level of Independence descriptions.

Operational Assessment Administration

The MAP-A was administered in the spring of 2014 to students meeting the Missouri's alternate assessment eligibility criteria. Mathematics assessments were administered to students in grades 3 through 8 and 10. Communication arts assessments were administered to students in grades 3 through 8 and 11. Science assessments were administered to students in grades 5, 8, and 11. Students from 437 districts participated in the MAP-A; 6,286 students participated in mathematics, 6,193 students participated in communication arts, and 2,659 students participated in science.

Eligible Students

All students are required to participate in the Missouri Assessment Program in one of four ways: 1) MAP Grade-Level assessments, 2) MAP End-of-Course assessments, 3) MAP Grade-Level or End-of-Course assessments with accommodations, or 4) the MAP-A.

The decision as to how a student with disabilities will participate in the state's accountability system is made by the student's Individualized Education Program (IEP) team using DESE-established criteria. If the IEP team for a student with a disability answers "yes" to all five of the following eligibility questions, then the student is eligible for MAP-A participation.

MAP-A Participation Eligibility Criteria

Yes	No	
__	__	1. The student has a demonstrated significant cognitive disability and adaptive behavioral skills. Therefore, the student has difficulty acquiring new skills, and skills must be taught in very small steps.
__	__	2. The student does not keep pace with peers, even with the majority of students in special education, with respect to the total number of skills acquired.
__	__	3. The student's educational program centers on the application of essential skills to the Missouri Show-Me Standards.
__	__	4. The IEP team, as documented in the IEP, does not recommend participation in the MAP assessments (Grade-Level or End-of-Course) or taking the MAP with accommodations.
__	__	5. The student's inability to participate in the MAP Grade-Level or End-of-Course assessments is not primarily the result of excessive absences; visual or auditory disabilities; or social, cultural, language, or economic differences.

In an attempt to provide more information for educators charged with making the MAP-A eligibility decision, DESE provided statements as a supplement to criterion #3. These statements may be used by IEP teams in identifying students whose educational programs center on the **application of essential skills** to the Missouri Show-Me Standards:

1. The student's reading ability is limited and, as such, the student acquires information primarily through other methods.
2. The student's ability to demonstrate knowledge by writing or speaking is limited; thus, the student must often use other methods to express ideas and share information.

3. The student requires significant supports to access the general education curriculum while demonstrating modest progress in that curriculum.
4. The student typically has difficulty solving novel problems or using newly acquired skills in differing situations.
5. The student's educational priorities primarily address essential skills that will be used in adult daily living.
6. The student's post-secondary outcomes will likely require supported or assisted living.
7. The student requires instruction in small groups or on a one-to-one basis, with frequent prompts and guidance from adults.

The grade-level MAP and End-of-Course assessments provide access to the vast majority of students. Therefore, approximately 1% of Missouri students assessed are expected to participate in the MAP-A. In accordance with NCLB regulation 34 CFR 200.13 Adequate Yearly Progress in General, if necessary Missouri would apply a 1% cap to the number of proficient and advanced scores based on the MAP-A that may be included in AYP calculations at both the state and district levels.

District test coordinators were required to enroll MAP-A eligible students in the MAP-A through ARC in fall 2013. This triggered delivery of a set of student-specific materials to the districts for each student enrolled in the MAP-A and an expectation that a MAP-A would be submitted for scoring for that student in spring 2014.

Assessment Blueprint/Design

The MAP-A is a performance-based assessment that promotes enhanced capacities and integrated life opportunities for students with severe disabilities. One key purpose is to capture evidence of student learning. Another key purpose, in accord with high-quality assessment practices, is to provide information upon which to base ongoing development of curricula and instruction that are responsive to individual student needs. Students with significant cognitive disabilities are valued and contributing members of their school and community. Missouri implements and continues to improve the MAP-A to meet the needs of students and teachers as well as to comply with the requirements of the federal government.

The MAP-A consists of a portfolio of data and supporting evidence collected by an instructional team. It provides information on a student's knowledge and skills in communication arts, mathematics, and science. The MAP-A assesses accuracy, independence, and connection to the standards on two APIs in each of two strands in communication arts and mathematics; the MAP-A also assesses four APIs selected from six strands in science. Tables 3, 4, and 5 contain the assessment blueprints for the three subjects.

Table 3. Assessment Blueprint for Mathematics

Content Area	Grade Focus	Title of Strand
Mathematics	Required for Grades 3-8 and 10	Numbers and Operations **(NO)**
	Required for Elementary Grades 3, 4, and 5	Algebraic Relationships **(AR)** *and/or* Geometric and Spatial Relationships **(GS)**
	Required for Middle School Grades 6, 7, and 8	Data and Probability **(DP)**
	Required for High School Grade 10	Measurement **(ME)**

Table 4. Assessment Blueprint for Communication Arts

Content Area	Grade Focus	Title of Strand
Communication Arts	Required for Grades 3-8 and 11	Reading: Develop and apply skills and strategies to the reading process (**RD** *and/or* **RP)**
	Required for Elementary Grades 3, 4, and 5	Writing: Compose well-developed text using standard English conventions **(WC)**
	Required for Middle School and High School Grades 6, 7, 8, and 11	Writing: Apply a writing process in composing text or write effectively in various forms and types of writing **(WP)**

Table 5. Assessment Blueprint for Science

Content Area	Grade Focus	Title of Strand
Science	Required for Elementary School Grade 5	• Strand 5: Processes and Interactions of the Earth's Systems **(ES)**
		• Strand 6: Composition and Structure of the Universe and the Motion of the Objects within it **(UN)**
		• Strand 7: Scientific Inquiry (IN) **or** Strand 8: Impact of Science, Technology, and Human Activity **(ST)**
		• Strand 3: Characteristics and Interactions of Living Organisms **(LO) or** Strand 4: Changes in Ecosystems and Interactions of Organisms with Their Environment **(EC)**
	Required for Middle School Grade 8	• Strand 1: Properties and Principles of Matter and Energy **(ME)**
		• Strand 2: Properties and Principles of Force and Motion **(FM)**
		• Strand 7: Scientific Inquiry **(IN) or** Strand 8: Impact of Science, Technology, and Human Activity **(ST)**
		• Strand 5: Processes and Interactions of the Earth's Systems **(ES) or** Strand 6: Composition and Structure of the Universe and the Motion of the Objects within It **(UN)**
	Required for High School Grade 11	• Strand 3: Characteristics and Interactions of Living Organisms **(LO)**
		• Strand 4: Changes in Ecosystems and interactions of Organisms with Their Environment **(EC)**
		• Strand 7: Scientific Inquiry **(IN) or** Strand 8: Impact of Science, Technology, and Human Activity **(ST)**
		• Strand 1: Properties and Principals of Matter and Energy **(ME) or** Strand 2: Properties and Principals of Force and Motion **(FM)**

Mathematics and communication arts are assessed at grades 3 through 8. Mathematics is also assessed at grade 10. Communication arts is also assessed at grade 11. Science is assessed at grades 5, 8, and 11. All three content areas require assessment of four different APIs. APIs for MAP-A entries must be selected from particular strands within each content area, depending upon the student's grade level.

For example, the mathematics Measurement strand (ME) includes 55 APIs, from which two must be selected for a 10th-grade student's MAP-A mathematics assessment, along with two APIs from the Numbers and Operations strand (NO). The following is a sample of nine APIs from the Measurement strand.

Alternate Performance Indicators (APIs)

Justify and use the appropriate unit of measure (linear, time, weight).

ME1.1. Recognize, compare, and order attributes such as length and weight.

a. Compare and communicate the length of 2 objects directly, using words such as "bigger," "smaller," "longer," "shorter," and "taller."

b. Compare and communicate the weight of 2 objects directly, using words such as "heavier," and "lighter."

c. Engage in experiences to connect number with length, using both conventional rulers and manipulative units that are standard units, such as centimeter cubes.

d. Engage in experiences to connect number with weight, using balance and spring scales.

e. Select and identify the appropriate tool for the attribute being measured.

f. Show understanding of unit iteration for length measurement (e.g., placing units end to end in some manner, with no gaps).

g. Use repetition of a single unit to measure something larger than the unit (e.g., measuring the length of the room with a single meter stick).

h. Use appropriate unit for the attribute being measured.

Complete API lists may be found in the *Instructor's Guide and Implementation Manual* and/or at DESE's MAP-A web page.[1]

Once the APIs are selected, the MAP-A requires that data for each API be collected over two collection periods to form a MAP-A entry. For each entry, three data points per collection period must be recorded on the Entry/Data Summary Sheet. One of these three data points per collection period must be further described and documented on a Student Work Record. Actual student work, appropriate for inclusion in the portfolio, is submitted with the student work record.

A **complete MAP-A entry** is defined, at a minimum, as one Entry/Data Summary Sheet and two Student Work records documenting six data points for each API. Each subject requires submission of four entries. Because there are four APIs, and four entries required, a student's content area submission will contain documentation for 24 data points at a minimum. In all, there is a total of 72 MAP-A data points per student participating in mathematics, communication arts, and science. Table 6 below outlines the requirements.

[1]http://dese.mo.gov/college-career-readiness/assessment/map-a#Manuals

Table 6. Mathematics, Communication Arts and Science Data Collection and Submission Requirements

Entry	APIs per Entry	Collection Period	Data Collection Required	Forms Required		Min. Total # of Pages
1	1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	**12**
		2	3 data points			
2	1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
3	1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
4	1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			

Steps for MAP-A Administration

The administration process follows twelve steps that take the teacher from determining student eligibility to the point of submitting the assessment. These steps are outlined in the *Instructor's Guide and Implementation Manual* provided to teachers. That manual provides detailed information on what evidence to collect and how to do so for each student and also provides many samples for teachers to refer to during the process. The twelve steps are as follows:

A Twelve-Step Procedure for Completing the MAP-A

1. **Verify student eligibility for participation in the MAP-A. Refer to the student's IEP.**
   For information about eligibility see the Participation Eligibility Criteria established by DESE.

2. **Determine the composition of the instructional team that will assess the student and fully inform all participants about the MAP-A.**
   The instructional team may include teachers, administrators, physical therapists, speech therapists, occupational therapists, paraprofessionals, job coaches, parents or guardians, and the student, when appropriate. **The student's case manager/teacher is responsible for the coordination of the assessment**. The case manager/teacher should fully inform all participants on the instructional team about the alternate assessment. Other professionals responsible for assisting the case manager/teacher in collecting information about the student should be aware of the MAP-A requirements and their roles in administering the MAP-A. Members of the instructional team are listed on the MAP-A validation form. The instructional team may have members in common with the IEP team, but they are NOT the same group.

3. **Identify the mandatory strands in each content area.**
   The instructional team should refer to the Assessment Blueprint prior to beginning collection of evidence for the MAP-A.

4. **Select Alternate Performance Indicators (APIs) for each required content-area strand.**
   The instructional team should refer to the Alternate Performance Indicators for a list of appropriate grade-level APIs for each strand.

   - For mathematics and communication arts, **two APIs per strand** are required.
   - For science, **one API per grade-appropriate strand** is required.

5. **Review the requirements for documentation for the MAP-A.**
   The following forms are required to complete documentation for each API:

   - **Form 1:** Entry/Data Summary Sheet
     This form is used to determine student scores for the rubric dimensions *Level of Accuracy* and *Level of Independence*. The following are included on the Entry/Data Summary Sheet:
     - Student identification
     - Content area and strand identification
     - API identification and description
     - Summary data chart
   - **Form 2:** Student Work Record
     This form is used to determine the student's score for the rubric dimension *Connection to the Standards*. In order to obtain full credit for this rubric

dimension, the Student Work Record must show *application* of the API in standards-based activities. The following are included on the Student Work Record:

- Student identification
- Content area and strand identification
- API identification and description
- Activity description
- Description and evaluation of student performance

6. **Determine the data collection system for documentation of student performance.**
   The instructional team selects the APIs and determines how student performance will be documented. The team should ask the following questions when planning for data collection:
   - How was the activity designed?
   - What type of data will be collected?
     - Discrete trials
     - Task analyses
     - Time intervals
     - Accuracy rates
   - How will the data be collected and organized?
   - Who will collect the data?
   - When will the data be collected?
   - How will data be converted into percentage scores?

7. **Collect and record data throughout the assessment period.**
   There are two required collection periods for the recording of data on the Entry/Data Summary Sheet. Only data collected during the identified collection periods should be included on the data sheets. There must be three data points per collection period, one of which is linked to a Student Work Record.

8. **Select a Student Work Record to include in the MAP-A for each collection period.**
   The data from the Student Work Records submitted must be documented on the Entry/Data Summary Sheet. Make sure the activity shows evidence of application of the API.

9. **Complete the Student Work Record.**

10. **Complete the Entry/Data Summary Sheet for each assessed API.**
    There are two steps to completing the Entry/Data Summary Sheet prior to submission of the MAP-A:
    - Determine API percentage averages.
      a. Average the two scores for *Level of Accuracy*.
      b. Average the two scores for *Level of Independence*.
    - Indicate the Student Work Record included for each collection period of the API.

11. **Assemble the MAP-A documentation.**
    Once all of the required documentation has been completed, the teacher should assemble the MAP-A as directed in the Table of Contents Checklist.

12. **Submit completed MAP-A.**
    Submit completed MAP-A to your district test coordinator on or before the MAP-A return deadline.

Administrator Training

Through DESE Regional Professional Development Centers (RPDCs) contracts, Improvement Consultants (ICs) hold primary responsibility for training Missouri teachers about MAP-A. On September 5 2013, ARC staff delivered administration training to ICs employed by the state's RPDCs, staff from the Missouri Schools for the Severely Disabled, and staff from the DESE Assessment Section and Division of Special Education. The intent of the training was to provide ICs and others with the information necessary to train teachers in the MAP-A administration process. The 21 participants represented all nine regions of the state. Participants were provided with a copy of the 2013-2014 *MAP-A Instructor's Guide and Implementation Manual* and supporting materials that included sample agendas, blank activity sheets with attached step-by-step instructions, electronic copies of the presentation slides and other training materials.

The training included updates in the assessment program for 2014, participation criteria, a step-by-step process for the administration of the MAP-A, an overview of the components and forms used in the MAP-A, the scoring rubric and rules, data collection processes, the assessment AGLEs and APIs, and several student samples.

Other hands-on activities showed prospective trainers how to use the actual student samples provided in the manual for training purposes. A variety of student samples were included in the manual to show a range of students, grades, and content areas. Other samples were specifically created to train teachers on the differences between acquisition and application of skills and also how to write up student observations so that all the information on evaluating the student and his/her performance on a chosen API was present.

Participants were also provided with information regarding common difficulties and errors encountered in the 2013 MAP-A submissions. These included

- difficulty with science APIs,
- confusion over application and acquisition,
- attempts to show progress, and
- inappropriate or incomplete descriptions of student accuracy or independence.

To respond to requests from trainers and teachers across the state for additional sources of consistent MAP-A administration training information, DESE and ARC divided the MAP-A administration information into three segments, 1) general administration training, 2) new information for the current school year, and 3) sample activities and MAP-A entries.
The ICs provided trainings in their respective regions to school personnel, using the tools and resources developed by DESE and ARC. Based on feedback from teachers across the state, most RPDCs offered a training session for teachers new to MAP-A and a training session specifically designed for returning MAP-A teachers.

ICs delivered the content provided to them by ARC and DESE, using the MAP-A administration training presentation and other materials developed and approved by DESE. Teachers received not only the detailed information regarding MAP-A administration, hands-on exercises, and group discussion opportunities described above, but also received additional individual attention and feedback from the IC in their region. In addition, ICs in many regions offered drop-in days. On these days, hosted and moderated by the RPDCs, teachers worked with RPDC staff and with their peers to refine MAP-A assessments-in-development. See Appendix F for MAP-A administration training presentations.

Table 7 indicates the total number of MAP-A training workshops offered by each region and the number of participants at those trainings.

Table 7. 2014 MAP-A Administration Training by Region

Region	Number of Workshops Offered	Number of Participants Attending
Southeast	4	163
Heart of Missouri	12	136
Kansas City	8	293
Northeast	6	150
Northwest	3	63
South Central	13	201
Southwest	7	199
St. Louis	8	223
Central	12	286
Total	73	1714

DESE made the 2013-2014 *Instructor's Guide and Implementation Manual* available to every teacher administering the MAP-A. Teachers attending training conducted by the ICs were provided with a copy; teachers could also obtain copies of the manual through the RPDC in their region or from the Assessment Resource Center. The manual was also available for download at the DESE website.

Implementation Schedule

The schedule for the MAP-A began with the September 5 2013, administration training and continued with trainings conducted by RPDC staff beginning in September 2013. Assessment materials were shipped to districts December 2013 through early January 2014, and two distinct data collection periods spanned January through late February 2014. MAP-A submissions were returned to ARC in March 2014 for scoring. Table 8 outlines this timeline.

Table 8. 2014 MAP-A Timeline

Event	Dates
Enrollment Window	September 9 – November 1, 2013
Transfer Administration Date	January 3, 2014
Collection Period 1	January 6 – January 31, 2014
Collection Period 2	February 3 – February 28, 2014
Submit Completed MAP-A within District	March 3 – March 7, 2014
Return Deadline	March 7, 2014

Participation

MAP-A participation totaled 6,286 students in mathematics, 6,193 in communication arts, and 2,659 in science. A summary of Missouri student participation in the 2014 MAP-A assessment is provided in Table 9. See the Scoring and Reporting section for additional information regarding student participation and performance.

Table 9. 2014 MAP-A Participation

Content Area	Grade Span/Level	Students Participating
Mathematics	3-5	2,689
	6-8	2,707
	10	890
Communication Arts	3-5	2,689
	6-8	2,707
	11	797
Science	5	945
	8	917
	11	797

Scoring and Reporting

MAP-A scoring was conducted at the Assessment Resource Center (ARC). Scoring took place over several weeks beginning in March and continuing through June 2014.

Scoring Rubric

The scoring rubric is the basis for determining the student scores on the MAP-A. Three dimensions are scored:

1. Level of accuracy. This dimension reflects how well the student understands the concept(s) being assessed.
2. Level of independence. This dimension reflects the extent to which the student is able to perform without assistance from the examiner.
3. Connection to the standards. This dimension reflects whether the assessment is clearly linked to the Show-Me Standards.

Scorers review the entries submitted and assign rubric scores for each of the three dimensions. Level of accuracy and level of independence are scored using a four-point rubric. Connection to the standards is scored using a three-point rubric. The total entry score is a simple sum of these three, and ranges from 0 to 11 points. A sum of the entry scores for the four entries required for mathematics, communication arts, and science makes up the total raw score for that subject area. The total raw score ranges from 0 to 44 points.

Table 10 shows the rubric dimensions.

Table 10. MAP-A Rubric

Rubric	Score Points				
	4	3	2	1	No Score
Level of Accuracy	Student performance of skills "based on Alternate Performance Indicators" demonstrates a **high level of understanding** of concepts. **76–100% Accuracy**	Student performance of skills "based on Alternate Performance Indicators" demonstrates **some understanding** of concepts. **51–75% Accuracy**	Student performance of skills "based on Alternate Performance Indicators" demonstrates a **limited understanding** of concepts. **26–50% Accuracy**	Student performance of skills "based on Alternate Performance Indicators" demonstrates a **minimal understanding** of concepts. **0–25% Accuracy**	Entry contains insufficient information to determine a score.
Level of Independence	Student requires **minimal** verbal, visual, and/or physical assistance to demonstrate skills and concepts. **76–100% Independence**	Student requires **some** verbal, visual, and/or physical assistance to demonstrate skills and concepts. **51–75% Independence**	Student requires **frequent** verbal, visual, and/or physical assistance to demonstrate skills and concepts. **26–50% Independence**	Student requires **extensive** verbal, visual, and/or physical assistance to demonstrate skills and concepts. **0–25% Independence**	Entry contains insufficient information to determine a score.
Connection to the Standards	--	There is evidence of applying the Alternate Performance Indicator in **two** standards-based activities, one per collection period.	There is evidence of applying the Alternate Performance Indicator in at least **one** standards-based activity, **one out of two collection periods**.	There is some evidence of a connection to the Alternate Performance Indicator.	There is insufficient evidence of a connection to the Alternate Performance Indicator.

MAP-A data submissions are not always complete and may not follow submission guidelines. Table 11 shows potential data irregularities, the rules used to address them, and the frequencies at which these irregularities appeared in the MAP-A entries for 2014.

Table 11. Scoring Rules

Code	Data Irregularity	Scoring Rule	# of Appearances in Scored 2014 Entries	% of Total Scored 2014 Entries
01	No dates given on Entry/Data Summary Sheet and on Student Work Records.	Entry is assigned a "No Score" for each dimension of the rubric.	30	0.05
02	Missing Entry/Data Summary Sheet.	Entry is assigned a "No Score" for each dimension of the rubric.	38	0.06
03	A collection period does not have a minimum of three data points.	Entry is assigned a "No Score" for each dimension of the rubric.	686	1.13
04	An entry does not include at least one Student Work Record per Collection Period.	Entry is assigned a "No Score" for each dimension of the rubric.	217	0.36
05	A submitted Student Work Record for an entry does not connect to the API/s.	Entry is assigned a "No Score" for each dimension of the rubric.	5234	8.64
06	One out of two collection periods is incomplete.	Entry is assigned a "No Score" for each dimension on the rubric.	5	0.01
07	No API/s identified on a Student Work Record or Entry Data/Summary Sheet.	The collection period is considered incomplete. Entry is assigned a "No Score" for each dimension on the rubric.	0	0.00
08	The API/s is/are not grade-span appropriate.	The collection period is considered incomplete. Entry is assigned a "No Score" for each dimension on the rubric.	0	0.00
09	A single API is used in more than one entry.	The first instance is scored. In the second instance, the entry is assigned "0 Data Points" in both collection periods and "No Score" for each dimension of the rubric.	0	0.00

Table 11. Scoring Rules (contd.)

Code	Data Irregularity	Scoring Rule	# of Appearances in Scored 2014 Entries	% of Total Scored 2014 Entries
11	Missing entry.	Entry is assigned "0 Data Points" in both collection periods and "No Score" for each dimension on the rubric.	1045	1.73
12	API/s is/are not consistent across the 2 collection periods.	Entry is assigned a "No Score" for each dimension of the rubric.	0	0.00
13	Dates on the Entry/Data Summary Sheet and Student Work Records are not within the timeframes of the collection periods.	Any data from dates outside of the timeframes is not used for scoring.	0	0.00
14	One or more Student Work Records shows acquisition rather than application of the API/s.	The activity in these collection periods cannot be considered application.	8476	14.00
15	Student work sample or piece of tangible student work submitted without a Student Work Record attached.	The activity in this collection period cannot be considered application.	0	0.00
16	Student Work Record missing task/activity description.	The activity in this collection period cannot be considered application.	2	<0.01
17	Submitted percentages are miscalculated.	Scorer corrects percentages.	1109	1.83
18	Percentage calculations for Accuracy or Independence cannot be verified for a Student Work Record.	Percentage for Accuracy or Independence for the Student Work Record is replaced with zero and entry average is recalculated to determine rubric score.	2463	4.07

More information regarding scoring criteria may be found in Appendix G.

Scorer Selection

ARC has many years' experience hiring and training scorers to read, evaluate, and score open-ended assessments (fill-in-the-blank, short answer, short or long essay, and portfolio) for students at the primary, secondary, and post-secondary educational levels in subject areas including reading/language arts, mathematics, science, and social studies. Emphasis is placed on the maintenance of security and confidentiality of tests at all times. Scorers consult with scoring facilitators about scoring questionable responses to determine how to score them and attend

regularly scheduled meetings in order to identify and provide input for solving problems or potential problems. Facilitators exercise functional supervision over reader/scorers and/or other staff as necessary.

ARC recruited scorers and facilitators specifically for the MAP-A program. Minimum qualifications for MAP-A scorers include a baccalaureate degree, strong communication skills, and demonstrated ability to critically review printed material. In addition, MAP-A scoring facilitators have prior scoring experience, strong facilitation skills, and the ability to instruct scorers regarding the meaning and application of scoring rubrics. Preferred qualifications for MAP-A scorers include previous experience scoring open-ended assessments, teaching, editing, and/or participating in structured analysis.

Twenty scorers and three scoring facilitators scored the 2013-2014 MAP-A submissions from March through June 2014. Scorers and scoring facilitators were required to sign nondisclosure agreements and agreed to maintain the security of MAP-A materials at all times.

Scorer Training

Scorer candidates participated in training sessions led by MAP-A experts that involved paper-and-pencil scoring training. Scorer training focused on the MAP-A rubric and scoring rules. Scorers were given examples of typical student work illustrating various rubric scores and scoring decisions. Examples of "difficult" submissions presenting a variety of scoring challenges were included. Scorer training also included an emphasis on applying the rubric and decision rules as trained, guarding against bias. Following training, scorer candidates were given qualifying tests. If they passed these tests, candidates were certified to score the MAP-A. After they qualified, scorers participated in further hands-on training that consisted of additional MAP-A scoring exercises and the review of MAP-A submissions scored the previous year. See Appendix H for resources used in MAP-A scorer training.

Individuals who served as scoring facilitators began their MAP-A training earlier than the remaining scorer candidates. Their participation in intensive training sessions and successful completion of qualifying tests were initial activities in the MAP-A scoring window. In addition to these tasks, they also assisted with screening scorer candidates.

Scoring Procedures

The facilitators functioned as day-to-day monitors of MAP-A scoring, and conducted retraining using materials approved by the ARC MAP-A program staff. Facilitators met with ARC MAP-A program staff on a regular basis to discuss scoring congruence and MAP-A submission irregularities. A blind second read was conducted on a randomly selected set of portfolios, 35% of the 2014 MAP-A submissions.[2] The facilitators conducted resolution reads on portfolios that contained rubric score disagreements between scorers. In these cases, the facilitator's score prevailed as score of record. In addition, highly qualified senior scoring or program staff audited approximately 3% of MAP-A submissions at each grade span and circulated pre-scored submissions during the scoring window. In cases of disagreement with the initial score, the resolution or audit-read score replaced the initial score as the score of record. Facilitators had access to a variety of quality control information, monitored several MAP-A scoring agreement

[2] The initial scoring design called for a read-behind strategy in which the original score is verified and when necessary, corrected by an expert rater. Historically, the MAP-A read-behind rates ranged from 20% to 100%.

reports throughout each scoring day, and used this information to assist, recalibrate, or retrain scorers as necessary. Scorers were required to maintain acceptable agreement rates (an average of 80% across the three rubric dimensions).

To organize the flow of work during a typical day, MAP-A facilitators outlined the basic tasks and order of work in a simple-to-follow set of instructions.

Steps for Scorers

1. Take one MAP-A binder from the "In Box."
2. Verify that the student name and grade level on the MAP-A binder match the information in the MAP-A scoring interface.
3. Score according to directions.
4. Place completed MAP-A binder in the "Second Read Box," "Resolution Read Box," or "Completed Binder Box."
5. Repeat process as needed.

Steps for Scoring Facilitators

1. Stock the "In Box" with unscored MAP-A binders.
2. Conduct resolution read on MAP-A binders from the "Resolution Read Box."
3. Place validated MAP-A binders in the "Completed Binder Box."
4. Repeat process as needed.

To promote scoring consistency, MAP-A submissions were sorted and scored by grade span to allow scorers and facilitators to focus on one set of APIs for a prolonged period of time. The content strands and APIs assessed with the MAP-A change from grade span to grade span. Following completion of an entire grade span, the facilitators conducted training to calibrate scorers to the next set of APIs.

Reporting

Paper reports were created at the individual student level and at the district level. Two separate student-level reports were created, one for parents/guardians and one for teachers. Paper reports were printed at ARC or at the University of Missouri Printing Services, located in ARC's building. The score data did not leave ARC and the electronic prepress files were returned with the paper products. Paper reports were sent to both the district of residence and the district of attendance for each student as appropriate. A description of the paper reports follows and report samples may be found in Appendix I.

Reports

Individual Student Report–Parent/Guardian and Teacher

This report contained overall achievement level for a single content area, achievement level descriptors, raw rubric scores, and APIs assessed for each of the required entries. The only difference between the student-level reports was that teacher reports included comments related to any submission irregularities in a student's MAP-A so that teachers could learn to make correct submissions in the future.

API History Report

The Individual Student API History Report listed APIs assessed in 2013-2014 and, if information is available, those assessed in previous years. APIs that were assessed with the MAP-A in more than one year are noted. This report is provided for informational purposes and is meant to assist

administrators, teachers, and parents in tracking the breadth and depth of content assessed with the MAP-A from year to year across a student's educational span.

Student Record Label
The label contained assessment year and achievement level information.

District Report
This report summarized data based on student district of residence, and compared district performance by content area, grade span, and achievement level to overall state performance.

State Schools Building Report
This report was similar to the District Report but compared student data from one Missouri Schools for the Severely Disabled (MSSD) building by content area, grade span, and achievement level to overall MSSD performance.

State Schools Report
This report was similar to the District Report but compared student data from one MSSD building by content area, grade span, and achievement level to overall state performance.

State Schools District Report
This report was similar to the District Report but contained a summary of data of students who attend all MSSD buildings and compared overall MSSD performance by content area, grade span, and achievement level to overall state performance.

Report packages sent to districts included the mathematics, communication arts, and science reports for students who were enrolled or assessed in the district.

Reporting Decision Rules

Reports included achievement levels based upon the application of cut scores that may be found in Appendix E. Table 12 outlines the decision rules used for reporting of MAP-A scores.

Table 12. 2014 MAP-A Score Reporting Rules

Achievement Level	
Below Basic	Cut scores applied. *At least one data point recorded in content area submissions.*
Basic	Cut scores applied.
Proficient	Cut scores applied.
Advanced	Cut scores applied.
Level Not Determined	No assessment data points are provided in content-area-required entries.
Participation	
Participating	Enrolled students for whom MAP-A binders are returned for scoring with evidence of at least a partial attempt to collect data.
Non-participating	Enrolled students for whom empty or no MAP-A binders are returned for scoring.
Accountability	
Accountable	All enrolled students, less those who meet health waiver or enrollment exemptions.
Reportable	All accountable students less Level Not Determined and Non-participating students.
Health Waiver	Approved on an individual basis by DESE committee composed of representatives from Special Education; Assessment; and Accountability, Data and Accreditation.
Enrollment Exemptions	Students who moved in or out of the district after January 3, 2014.

Student Performance

The following tables present information regarding 2014 MAP-A student performance and participation.

Table 13. 2014 Students Tested Using MAP-A by Grade Level

Grade Level	MAP-A Students	Total MO Students	% MAP-A
3	816	67,960	1.2%
4	928	67,516	1.4%
5	945	67,016	1.4%
6	873	66,814	1.3%
7	917	67,705	1.4%
8	917	68,109	1.3%
10	890	68,682	1.3%
11	797	65,493	1.2%
Total	**7,083**	**539,295**	**1.3%**

Table 14. 2014 MAP-A Achievement Level Distribution

Grade Span	Achievement Level	Mathematics		Communication Arts		Science	
		n	%	*n*	%	*n*	%
All Grades	Level Not Determined	82	1.30	89	1.44	65	2.44
	Below Basic	281	4.47	291	4.70	67	2.52
	Basic	443	7.05	786	12.69	198	7.45
	Proficient	2027	32.24	1693	27.34	664	24.97
	Advanced	3454	54.94	3334	53.83	1665	62.62
	Prof & Adv	5481	87.18	5027	81.17	2329	87.59
Grades 3, 4, 5	Level Not Determined	30	1.12	30	1.12	19	2.01
	Below Basic	78	2.90	74	2.75	33	3.49
	Basic	163	6.06	183	6.81	76	8.04
	Proficient	799	29.71	799	29.71	244	25.82
	Advanced	1619	60.21	1603	59.61	573	60.63
	Prof & Adv	2418	89.92	2402	89.32	817	86.45
Grades 6, 7, 8	Level Not Determined	30	1.11	33	1.22	19	2.07
	Below Basic	163	6.02	134	4.95	24	2.62
	Basic	208	7.68	428	15.81	90	9.81
	Proficient	945	34.91	769	28.41	240	26.17
	Advanced	1361	50.28	1343	49.61	544	59.32
	Prof & Adv	2306	85.19	2112	78.02	784	85.49
Grades 10, 11	Level Not Determined	22	2.47	26	3.26	27	3.39
	Below Basic	39	4.38	83	10.41	10	1.25
	Basic	72	8.09	175	21.96	32	4.02
	Proficient	283	31.80	125	15.68	180	22.58
	Advanced	474	53.26	388	48.68	548	68.76
	Prof & Adv	757	85.06	513	64.36	728	91.34

Table 15. 2014 MAP-A Mathematics Achievement Level Distribution by Grade Level

Grade	Total Students	Level Not Determined & Below Basic *		Basic		Proficient		Advanced		Prof & Adv	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
3	816	31	3.80	55	6.74	227	27.82	503	61.64	730	89.46
4	928	35	3.77	48	5.17	275	29.63	570	61.42	845	91.06
5	945	42	4.44	60	6.35	297	31.43	546	57.78	843	89.21
6	873	63	7.22	51	5.84	300	34.36	459	52.58	759	86.94
7	917	53	5.78	80	8.72	320	34.90	464	50.60	784	85.50
8	917	77	8.40	77	8.40	325	35.44	438	47.76	763	83.21
10	890	61	6.85	72	8.09	283	31.80	474	53.26	757	85.06
Total	6286	362	5.76	443	7.05	2027	32.25	3454	54.95	5481	87.19

* Level Not Determined and Below Basic data combined due to small sample size.

Table 16. 2014 MAP-A Communication Arts Achievement Level Distribution by Grade Level

Grade	Total Students	Level Not Determined & Below Basic *		Basic		Proficient		Advanced		Prof & Adv	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
3	816	28	3.43	56	6.86	264	32.35	468	57.35	732	89.71
4	928	34	3.66	64	6.90	252	27.16	578	62.28	830	89.44
5	945	42	4.44	63	6.67	283	29.95	557	58.94	840	88.89
6	873	49	5.61	139	15.92	240	27.49	445	50.97	685	78.47
7	917	54	5.89	129	14.07	261	28.46	473	51.58	734	80.04
8	917	64	6.98	160	17.45	268	29.23	425	46.35	693	75.57
11	797	109	13.68	175	21.96	125	15.68	388	48.68	513	64.37
Total	6193	380	6.13	786	12.69	1693	27.34	3334	53.83	5027	81.17

* Level Not Determined and Below Basic data combined due to small sample size.

Table 17. 2014 MAP-A Science Achievement Level Distribution by Grade Level

Grade	Total Students	Level Not Determined & Below Basic *		Basic		Proficient		Advanced		Prof & Adv	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%
5	945	52	5.50	76	8.04	244	25.82	573	60.63	817	86.46
8	917	43	4.69	90	9.81	240	26.17	544	59.32	784	85.50
11	797	37	4.64	32	4.02	180	22.58	548	68.76	728	91.34
Total	2659	132	4.96	198	7.45	664	24.97	1665	62.62	2329	87.59

* Level Not Determined and Below Basic data combined due to small sample size.

Table 18. 2014 MAP-A Mathematics Achievement level Distribution by Gender, Ethnicity, Primary Disability, Student Status, ELL Status, and Classroom Instruction

	Level Not Determined		Below Basic		Basic		Proficient		Advanced		Prof & Adv	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*	%
Gender												
Male	61	1.5	170	4.2	290	7.1	1325	32.4	2242	54.8	3567	87.3
Female	21	1.0	110	5.0	153	7.0	702	31.9	1212	55.1	1914	87.1
Ethnicity												
Black, not Hispanic	25	1.7	71	4.8	101	6.8	495	33.5	786	53.2	1281	86.7
White, not Hispanic	50	1.1	192	4.4	313	7.2	1396	32.1	2399	55.1	3795	87.2
Not Reported: Native American or Alaska Native; Asian/Pacific Islander, and Hispanic groups*												
Primary Disability												
MR	38	1.3	117	4.0	200	6.8	929	31.5	1662	56.4	2591	87.9
Multiple Disabilities	14	2.2	51	8.2	70	11.2	235	37.7	254	40.7	489	78.4
Autism	12	.8	45	2.9	92	6.0	492	32.2	887	58.0	1379	90.2
Not Reported: Specific LD, ED, Traumatic Brain Injury, Emotional Speech, Hearing, Language, Visual, Orthopedic, and Other Health Impairment *												
Student Status												
SES	21	2.0	59	5.5	82	7.7	359	33.6	547	51.2	906	84.8
IAP	11	3.5	19	6.0	23	7.3	114	36.2	148	47.0	262	83.2
IEP	71	1.2	261	4.4	419	7.0	1911	32.1	3300	55.4	5211	87.4
Title 1	10	2.0	25	5.0	36	7.2	168	33.7	259	52.0	427	85.7
In building less than a year	19	2.8	36	5.4	38	5.7	215	32.2	359	53.8	574	86.1
Not Reported: Gifted, H.S. Career Education, In district less than a year, Migrant, and Voluntary Transfer Student designations*												
ELL Status												
Not Reported: Receiving ELL Services, ELL Monitoring, and Title III*												
Classroom Instruction												
From 21% to 60% of school day	16	.9	62	3.4	108	5.9	559	30.4	1091	59.4	1650	89.9
More than 60% of school day	44	1.3	120	3.7	212	6.5	1023	31.3	1870	57.2	2893	88.5
Separate School	17	1.7	87	8.5	117	11.5	386	37.8	413	40.5	799	78.3
Not Reported: Classroom Instruction Less than 21% of school day *												

* In compliance with confidentiality requirements, data from these subgroups are not reported due to small sample size (*n* < 10 in any one cell).

Table 19. 2014 MAP-A Communication Arts Achievement level Distribution by Gender, Ethnicity, Primary Disability, Student Status, ELL Status, and Classroom Instruction

	Level Not Determined		Below Basic		Basic		Proficient		Advanced		Prof & Adv	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*	%
Gender												
Male	60	1.5	190	4.7	502	12.4	1104	27.3	2183	54.0	3287	81.4
Female	29	1.3	101	4.7	284	13.2	589	27.3	1151	53.4	1740	80.8
Ethnicity												
Black, not Hispanic	23	1.6	85	5.9	188	13.1	402	28.0	736	51.3	1138	79.4
White, not Hispanic	55	1.3	189	4.4	535	12.4	1171	27.2	2363	54.8	3534	81.9
Not Reported: Native American or Alaska Native; Asian/Pacific Islander, and Hispanic groups*												
Primary Disability												
MR	42	1.4	125	4.3	349	12.0	736	25.3	1658	57.0	2394	82.3
Other Health Impairment	10	1.6	29	4.5	71	11.1	180	28.1	351	54.8	531	82.8
Autism	14	.9	59	3.9	172	11.5	428	28.5	829	55.2	1257	83.7
Multiple Disabilities	14	2.3	46	7.4	141	22.8	207	33.4	211	34.1	418	67.5
Not Reported: Specific LD, ED, Traumatic Brain Injury, Speech, Emotional, Hearing, Language, Visual, and Orthopedic *												
Student Status												
SES	17	1.7	69	6.8	131	12.9	312	30.8	485	47.8	797	78.6
IEP	83	1.4	275	4.7	739	12.5	1580	26.8	3222	54.6	4802	81.4
In building less than a year	13	2.1	40	6.3	63	10.0	179	28.4	336	53.2	515	81.6
Not Reported: Gifted, H.S. Career Education, IAP, In district less than a year, Migrant, Title 1, and Voluntary Transfer Student designations*												
ELL Status												
Not Reported: Receiving ELL Services, ELL Monitoring, and Title III*												
Classroom Instruction												
From 21% to 60% of school day	17	.9	60	3.3	176	9.6	465	25.4	1113	60.8	1578	86.2
More than 60% of school day	46	1.4	129	4.0	377	11.7	870	27.0	1795	55.8	2665	82.8
Separate School	21	2.1	95	9.6	219	22.1	319	32.2	336	33.9	655	66.2
Not Reported: Classroom Instruction Less than 21% of school day *												

* In compliance with confidentiality requirements, data from these subgroups are not reported due to small sample size (*n* < 10 in any one cell).

Table 20. 2014 MAP-A Science Achievement level Distribution by Gender, Ethnicity, Primary Disability, Student Status, ELL Status, and Classroom Instruction

	Level Not Determined		Below Basic		Basic		Proficient		Advanced		Prof & Adv	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Gender												
Male	40	2.3	50	2.9	124	7.1	435	25.0	1092	62.7	1527	87.7
Female	25	2.7	17	1.9	74	8.1	229	24.9	573	62.4	802	87.4
Ethnicity												
Black, not Hispanic	19	3.0	19	3.0	49	7.7	148	23.4	398	62.9	546	86.3
White, not Hispanic	36	2.0	45	2.4	140	7.6	476	25.8	1147	62.2	1623	88.0
Not Reported: Native American or Alaska Native; Asian/Pacific Islander, and Hispanic groups*												
Primary Disability												
MR	30	2.3	21	1.6	84	6.5	312	24.3	836	65.2	1148	89.5
Autism	10	1.7	18	3.0	51	8.5	151	25.1	372	61.8	523	86.9
Multiple Disabilities	10	3.7	11	4.1	31	11.4	73	26.9	146	53.9	219	80.8
Not Reported: Specific LD, ED, Traumatic Brain Injury, Speech, Emotional, Hearing, Language, Visual, Orthopedic, and Other Health impairments*												
Student Status												
IEP	60	2.4	61	2.4	188	7.5	637	25.3	1572	62.4	2209	87.7
SES	13	2.9	20	4.4	38	8.4	104	23.0	278	61.4	382	84.3
Not Reported: Gifted, H.S. Career Education, IAP, In district less than a year, In building less than a year, Migrant, Title 1, and Voluntary Transfer Student designations*												
ELL Status												
Not Reported: Receiving ELL Services, ELL Monitoring, and Title III*												
Classroom Instruction												
From 21% to 60% of school day	11	1.4	18	2.3	61	7.8	191	24.4	503	64.2	694	88.5
More than 60% of school day	34	2.6	30	2.3	78	5.9	334	25.2	847	64.0	1181	89.3
Separate School	19	3.9	19	3.9	55	11.3	120	24.7	273	56.2	393	80.9
Not Reported: Classroom Instruction Less than 21% of school day *												

* In compliance with confidentiality requirements, data from these subgroups are not reported due to small sample size ($n < 10$ in any one cell).

Reliability and Validity

Validity refers to how well a test does the job it was employed to do. Reliability refers to the consistency of results from an assessment, or the extent to which an assessment provides the same results over repeated administrations and the extent to which various items within a test tend to provide the same results (AERA, 1999). The validity of any assessment is limited by its reliability. That is, if a test does not consistently yield the same results at each administration, it is probably not valid.

Reliability

Typically the reliability of assessments is determined by correlations among test-retest administrations, parallel forms, and items within the test (e.g., item discrimination, Cronbach's alpha). Neither parallel forms, test-retest reliability, nor consistency of an individual student's performance over time can be computed for the MAP-A as it is currently designed, administered, and scored. Recall that on each student's Entry/Data Summary Sheet there are six data points, three data points collected during each of two collection periods. These are averaged for a single entry score.

Internal consistency or homogeneity of the MAP-A can be computed as an estimate of reliability, with caution. Recall that two entries are completed for each of two strands within the mathematics or communication arts domains, and one entry is completed for each of four strands in science. Each entry assesses a single API. Thus, each student has four entry scores recorded for each of these domains. One measure of internal consistency, split-half reliability, is typically computed by dividing the test in half (e.g., odd vs. even items) and correlating scores on half the test items with scores on the other half. This approach could be used to estimate the reliability of the MAP-A in two ways:

1. Treat the two entries as two halves of a test and correlate the two scores. For mathematics and communication arts this would provide an estimate of internal reliability for each of the two strands.
2. Treat all four entries in mathematics, communication arts, or science as items of a test of the same domain and compute Cronbach's coefficient alpha.

Each API is supposed to represent the same strand, and each strand is supposed to represent the same domain. Thus, correlations between them provide an estimate of how generalizable each entry score is to the strand or to the larger domain. However, there are three concerns regarding the interpretation of these estimates:

1. This method depends upon variation among scores. The MAP-A has restricted variation. Teachers can select APIs and design assessment activities on which they are fairly certain the student will be successful. Thus, there is a negative skew on entry average scores, with roughly 51-66% of the scores at ceiling. The distribution of rubric scores is more restricted, with 72-90% scoring at ceiling and 6-12% scoring at floor, or "0."
2. This is a very short test. On the MAP-A, the split-half reliability would be based on only two or four items. The Spearman-Brown formula could be applied to estimate the reliability of the whole test if the test were twice as long (i.e., four or eight items), but even doubled it would be a short test. Reliability is a problem on a short test.
3. This method is best applied to similar items measuring a single concept. Ideally, the two halves of a test should have similar content and difficulty level. Items measuring each

behavior/skill should be on each half of the test. On the MAP-A, the halves are not likely to be equivalent because there is only one item on each half and because teachers are free to choose any two APIs from a field of dozens. For example, a 5th grader might be given the following two performance indicators: "*Recognize a small collection of 1 or 2 items"* (NO1.1a) and "*Develop fluency with basic number relationships of addition and subtraction for sums up to 10*" (NO9.4). Both of these APIs are designed to measure understanding of numbers and operations. However, they have different content and levels of difficulty.

Tables 21-23 show the domain of available APIs by content area and strand.

Table 21. 2014 Domain of Available and Assessed APIs in Grades 3-5

Content Area	Strand	Total APIs Available	# of APIs Assessed
MA	Numbers and Operations **(NO)**	86	86
	Algebraic Relationships **(AR)**	21	21
	Geometric and Spatial Relationships **(GS)**	32	32
CA	Reading: Develop and apply skills and strategies to the reading process (**RD** *and/or* **RP)**	69	68
	Writing: Compose well-developed text using standard English conventions **(WC)**	22	22
SC	Scientific Inquiry **(IN)**	15	15
	Impact of Science, Technology and Human Activity **(ST)**	5	5
	Composition and Structure of the Universe and the Motion of the Objects within It **(UN)**	13	13
	Processes and Interactions of the Earth's Systems (Geosphere, Atmosphere, and Hydrosphere) **(ES)**	18	18
	Characteristics and Interactions of Living Organisms **(LO)**	19	17
	Changes in the Ecosystems and Interaction of Organisms with their Environments **(EC)**	14	13

Table 22. 2014 Domain of Available and Assessed APIs in Grades 6-8

Content Area	Strand	Total APIs Available	# of APIs Assessed
MA	Numbers and Operations **(NO)**	142	138
	Data and Probability **(DP)**	32	32
CA	Reading: Develop and apply skills and strategies to the reading process (**RD** *and/or* **RP)**	87	82
	Writing: Apply a writing process in composing text or write effectively in various forms and types of writing **(WP)**	40	39
SC	Impact of Science, Technology and Human Activity **(ST)**	13	12
	Properties and Principles of Matter and Energy **(ME)**	38	33
	Processes and Interactions of the Earth's Systems (Geosphere, Atmosphere, and Hydrosphere) **(ES)**	38	35
	Scientific Inquiry **(IN)**	26	25
	Composition and Structure of the Universe and the Motion of the Objects within It **(UN)**	16	15
	Properties and Principles of Force and Motion **(FM)**	27	27

Table 23. 2014 Domain of Available and Assessed APIs in Grades 10-11

Content Area	Strand	Total APIs Available	# of APIs Assessed
MA	Numbers and Operations **(NO)**	147	125
	Measurement **(ME)**	55	55
CA	Reading: Develop and apply skills and strategies to the reading process (**RD** *and/or* **RP)**	94	84
	Writing: Apply a writing process in composing text or write effectively in various forms and types of writing **(WP)**	43	43
SC	Scientific Inquiry **(IN)**	31	29
	Impact of Science, Technology and Human Activity **(ST)**	14	14
	Properties and Principles of Matter and Energy **(ME)**	54	35
	Properties and Principles of Force and Motion **(FM)**	37	28
	Characteristics and Interactions of Living Organisms **(LO)**	44	35
	Changes in Ecosystems and Interactions of Organisms with Their Environments **(EC)**	28	26

Tables 24-26 show the APIs that were assessed most often in each content area.

Table 24. 2014 API Usage in Mathematics

Grade Span	APIs Most Often Assessed	# of Times Assessed	% of Total Entries
Grades 3-5	AR3.1.B	477	4.50
	AR2.1.A	410	3.87
	AR1.1.E	363	3.42
	AR3.1.A	336	3.17
	NO1.0	317	2.99
	AR3.1.C	298	2.81
	AR7.1.B	267	2.52
	NO1.8	231	2.18
	NO1.6	231	2.18
	NO4.2	218	2.06
Grades 6-8	DP2.1.B	566	5.30
	DP2.1.A	513	4.80
	DP4.1.C	395	3.70
	DP3.2.B	339	3.17
	DP3.1.D	303	2.84
	DP1.1.B	255	2.39
	DP3.1.C	244	2.28
	DP1.2.A	237	2.22
	DP1.2	220	2.06
	DP3.1.A	196	1.83
Grade 10	ME3.4.A	294	8.49
	ME2.1.E	139	4.01
	ME2.1.A	116	3.35
	NO12.2	92	2.66
	ME3.1	79	2.28
	ME2.1.B	78	2.25
	ME2.1.F	69	1.99
	ME3.3.G	65	1.88
	ME3.4	62	1.79
	NO4.2	57	1.65

Table 25. 2014 API Usage in Communication Arts

Grade Span	APIs Most Often Assessed	# of Times Assessed	% of Total Entries
Grades 3-5	WC2.2	520	4.90
	WC1.1	443	4.17
	WC1.5	442	4.16
	WC4.1	436	4.11
	WC1.4	422	3.97
	WC2.6	385	3.62
	RD1.9	348	3.28
	WC1.2	323	3.04
	RD4.1	307	2.89
	WC2.3	297	2.80
Grades 6-8	WP1.3	468	4.38
	WP3.1	416	3.89
	WP2.3	355	3.32
	WP1.1	334	3.12
	WP3.4	312	2.92
	WP1.8	295	2.76
	WP3.2	292	2.73
	WP2.9	231	2.16
	WP1.7	219	2.05
	RD1.10	216	2.02
Grade 11	WP1.3	157	5.09
	WP3.4	128	4.15
	WP5.4	111	3.60
	WP3.1	92	2.98
	WP1.8	90	2.92
	WP2.3	82	2.66
	RD4.2	78	2.53
	RD1.9	73	2.37
	WP3.2	72	2.34
	RD1.10	71	2.30

Table 26. 2014 API Usage in Science

Grade	APIs Most Often Assessed	# of Times Assessed	% of Total Entries
Grade 5	ES7.1	328	8.88
	UN1.2	272	7.36
	UN1.1	218	5.90
	IN5.1	208	5.63
	EC1.4	127	3.44
	LO1.3	121	3.27
	ES8.3	119	3.22
	EC1.5	119	3.22
	UN4.2	115	3.11
	UN4.1	105	2.84
Grade 8	ME2.2	173	4.82
	FM1.2	162	4.51
	ME1.1	107	2.98
	ME1.7	99	2.76
	ES7.1	96	2.67
	ME1.3	94	2.62
	ES8.3	90	2.51
	ES7.2	86	2.40
	FM1.6	83	2.31
	IN2.1	80	2.23
Grade 11	EC2.3	206	6.70
	EC1.5	172	5.59
	LO1.3	128	4.16
	ME1.3	109	3.54
	EC1.4	100	3.25
	ME1.7	89	2.89
	ME2.2	81	2.63
	LO1.5	81	2.63
	IN2.4	71	2.31
	LO1.4	68	2.21

Noting these limitations to the interpretation of split-half reliability coefficients as applied to the MAP-A, Tables 27-30 report reliability estimates. Reliabilities for the rubric scores may be lower because the range is truncated.

Table 27. 2014 Reliability Estimates for the MAP-A, All Grades

	Mathematics			Communication Arts			Science		
	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha
Entry Average *n*=	5353	4610	4111	5124	5215	4521	2069	2086	1736
Accuracy (0 – 100)	.70	.73	.80	.69	.72	.79	.67	.69	.79
Independence (0 – 100)	.82	.79	.90	.76	.82	.85	.79	.76	.88
Rubric Score *n*=	6285	6285	6285	6192	6192	6192	2658	2658	2658
Level of Accuracy (0 – 4)	.52	.42	.59	.51	.51	.65	.49	.49	.65
Level of Independence (0 – 4)	.57	.44	.63	.54	.57	.69	.51	.52	.67
Connections to Standards (0 – 3)	.52	.45	.61	.51	.53	.64	.50	.50	.65

Note. Numbers in the Strand 1 and Strand 2 columns present the Spearman-Brown split-half reliability coefficients for the two APIs within that strand. Alpha refers to Cronbach's alpha for the 4 API scores within each domain.

Table 28. 2014 Reliability Estimates for the MAP-A, Grades 3 – 5

	Mathematics			Communication Arts			Science		
	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha
Entry Average *n*=	2307	2033	1820	2257	2384	2079	658	771	586
Accuracy (0 – 100)	.66	.76	.80	.60	.70	.74	.45	.61	.72
Independence (0 – 100)	.82	.81	.88	.75	.85	.85	.76	.75	.86
Rubric Score *n*=	2689	2689	2689	2689	2689	2689	945	945	945
Level of Accuracy (0 – 4)	.49	.43	.59	.49	.55	.66	.41	.56	.64
Level of Independence (0 – 4)	.56	.45	.65	.53	.65	.71	.45	.59	.67
Connections to Standards (0 – 3)	.50	.43	.61	.49	.58	.65	.46	.53	.64

Note. Numbers in the Strand 1 and Strand 2 columns present the Spearman-Brown split-half reliability coefficients for the two APIs within that strand. Alpha refers to Cronbach's alpha for the 4 API scores within each domain.

Table 29. 2014 Reliability Estimates for the MAP-A, Grades 6 – 8

	Mathematics			Communication Arts			Science		
	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha
Entry Average *n*=	2317	1854	1658	2245	2205	1915	703	709	585
Accuracy (0 – 100)	.75	.67	.78	.72	.68	.80	.73	.69	.82
Independence (0 – 100)	.81	.75	.85	.74	.75	.83	.72	.72	.84
Rubric Score *n*=	2706	2706	2706	2706	2706	2706	916	916	916
Level of Accuracy (0 – 4)	.52	.36	.53	.50	.46	.62	.45	.41	.62
Level of Independence (0 – 4)	.55	.38	.57	.52	.49	.65	.43	.42	.63
Connections to Standards (0 – 3)	.52	.41	.57	.53	.48	.62	.45	.44	.63

Note. Numbers in the Strand 1 and Strand 2 columns present the Spearman-Brown split-half reliability coefficients for the two APIs within that strand. Alpha refers to Cronbach's alpha for the 4 API scores within each domain

Table 30. 2014 Reliability Estimates for the MAP-A, Grades 10 – 11

	Mathematics			Communication Arts			Science		
	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha	Pair 1	Pair 2	Alpha
Entry Average ***n=***	729	723	633	622	626	527	708	606	565
Accuracy (0 – 100)	.69	.73	.81	.81	.83	.87	.76	.76	.81
Independence (0 – 100)	.86	.82	.91	.83	.85	.89	.85	.81	.91
Rubric Score ***n=***	890	890	890	797	797	797	797	797	797
Level of Accuracy (0 – 4)	.61	.61	.74	.58	.55	.70	.71	.52	.73
Level of Independence (0 – 4)	.65	.63	.75	.61	.58	.72	.74	.54	.75
Connections to Standards (0 – 3)	.59	.59	.71	.51	.47	.63	.64	.54	.69

Note. Numbers in the Strand 1 and Strand 2 columns present the Spearman-Brown split-half reliability coefficients for the two APIs within that strand. Alpha refers to Cronbach's alpha for the 4 API scores within each domain.

Three steps have been taken to increase the reliability of the MAP-A. First, three data points are collected at each of two collection periods for a total of six data points for each entry. The average for these six data points is taken as the student's score for that entry. Multiple data points result in a more stable score because the effects of "outlier" data points are minimized, and the average score is closer to what may be the student's "true" score. Increasing the number of data points should result in higher reliability.

Second, two standard forms, the "Entry/Data Summary Sheet" and the "Student Work Record," along with actual student work, if appropriate, are used to report data. Test administrators are carefully trained to provide data on these standardized forms. The degree of accuracy and of independence that is required to earn each point on the rating scales is clearly specified, and models are used in training. Data collection, documentation, and submission requirements are prescribed in order to reduce the degree of variance in judgment that is somewhat inevitable in portfolio assessments. This standardized format contributes to reliability, although it has to be balanced with the need to design individualized assessments appropriate to each eligible student.

Third, scorers are carefully trained and monitored to assure inter-rater agreement. This is important because a test cannot have reliability that is higher than the reliability of the scoring. Inter-rater agreement is discussed in detail next.

Agreement Among Scorers

The extent to which two scorers assign the same score to an assessment when using the same rubric is referred to as inter-rater agreement. As part of ARC's quality control program for scoring MAP-A, inter-rater agreement reports are generated regularly. During scoring, 35% of submissions were given a blind second read. Thus, 2,480 of the 2014 MAP-A portfolios were checked for inter-rater agreement.

As a scorer completes a first read of a binder, his/her scores for each entry in the binder are entered into the MAP-A score database. As a scorer completes a second read of a binder, his/her scores for each entry in the binder are entered into the MAP-A score database and compared to

the first set of scores. If there is a rubric score discrepancy on any of the entries within the portfolio, a facilitator then conducts a blind resolution read on the entry or entries in question. The facilitator's score then becomes the score of record.

Facilitators review discrepancy logs and agreement reports comparing inter-rater agreement percentages among scorers as well as agreement percentages with the facilitators' resolution reads. Early in the scoring season, agreement reports are reviewed several times a day with MAP-A program staff. As the season progresses and agreement rates stabilize, reports are reviewed by facilitators daily and with program staff several times a week.

Facilitators and program directors use inter-rater agreement and resolution reports to identify scorers in need of retraining and calibration and to identify any areas in which the entire scoring panel might have needed recalibration. With this information, retraining can be targeted and delivered quickly. Facilitators determine what retraining is necessary for scorers individually and as a group.

Tables 31, 32, and 33 summarize agreement reports for the MAP-A entries scored during the 2014 scoring season. Thirty-five percent of 25,148 mathematics, 24,772 communication arts, and 10,636 science entries received second reads. Inter-rater agreement percentages for each subject may be found in the tables below. Level of accuracy and level of independence dimensions are scored using a four-point rubric. Connection to the standards is scored using a three-point rubric. The rubric for each scoring dimension calls for multiple decisions prior to assigning a rubric score. The maximum possible score per MAP-A entry is 11 points. The MAP-A scoring rules call for scorers to make decisions about whether an entry is scorable or unscorable. In cases of disagreement on such decisions, the resulting rubric scores differ by more than one point. This being the case, higher non-adjacent rates are expected in MAP-A scoring than in scoring using other holistic or analytic rubrics.

Table 31. 2014 Mathematics Agreement Rates

	Perfect	Perfect Plus Adjacent	Non-adjacent
Level of Accuracy	90.76	92.50	7.50
Level of Independence	90.02	91.33	8.67
Connection to the Standards	83.47	85.98	14.02

Table 32. 2014 Communication Arts Agreement Rates

	Perfect	Perfect Plus Adjacent	Non-adjacent
Level of Accuracy	93.64	94.88	5.12
Level of Independence	92.48	93.79	6.21
Connection to the Standards	85.56	86.69	13.31

Table 33. 2014 Science Agreement Rates

	Perfect	Perfect Plus Adjacent	Non-adjacent
Level of Accuracy	97.62	99.59	0.41
Level of Independence	97.31	98.95	1.05
Connection to the Standards	93.89	95.91	4.09

Validity

Validity refers to the appropriateness, meaningfulness, and usefulness of inferences made from test scores. It is the extent to which an assessment measures what it is intended to measure for a particular purpose. The purposes of the MAP-A are to (1) document student learning according to state academic standards, and (2) inform instruction. Some of the evidence to support the validity of the MAP-A for these purposes has already been discussed in earlier sections of the report that address test administration, test scoring, and test reliability. Another important piece of evidence to support validity of the MAP-A for these purposes is test content, which is discussed next.

Test Content

Lissitz & Samuelsen (2007) argue that the test construction process is at the heart of validity. They state, "*content validity, or internal validity, should be acknowledged as the critical initial characteristic to consider when evaluating the quality of a test*" (p. 446). While there is controversy regarding whether test content is the most important aspect of validity (Embretson 2007), content validity is widely considered the minimal requirement for a valid test, but not a guarantee that a test is valid.

This aspect of validity refers to whether the content of the assessment corresponds with what content should be covered by the assessment, that is, whether test content is relevant and representative of the construct. It is based on judgment and is not quantifiable. We discuss three aspects of the MAP-A content that support its validity for the purposes discussed above:

1. The alignment of strands with standards;
2. The alignment of APIs with strands;
3. The range of content in portfolios.

First, during development of the MAP-A, a blueprint was used to outline the curriculum and standards for each subject and grade level. This process assured strong alignment of MAP-A strands with Missouri's Show-Me Standards, GLEs, and AGLEs. A summary of the assessment development process may be found in the Overview section of this report; refer to the *2006 MAP-A Technical Manual* for a detailed description of the mathematics and communication arts development process and to Appendix B for details regarding the science development process. The assessment blueprint may be found in the Operational Assessment Administration section.

Second, two steps have been taken to maximize alignment of APIs with strands. First, MAP-A administrators are carefully trained so that administration procedures are standardized. This process is described in the Operational Assessment Administration chapter. Second, each MAP-A portfolio is rated on its "connection to standards." This process is described in the Scoring and Reporting chapter. However, MAP-A administrators can choose what APIs to use to represent

each strand with each student. Their choices influence the content validity of the MAP-A. In fact, the validity of each student's portfolio is potentially unique, depending on the APIs selected by the administrator.

Third, effort has been made to broaden the range of content assessed by the MAP-A. Typically, tests merely sample a portion of the universe of items that could be used to assess a content domain. The larger the sample, the more valid the test. Because lengthy assessments are onerous, particularly for the MAP-A student, a balance must be achieved between the number of actual APIs selected and the universe of possible APIs. A 2006 study of communication arts and mathematics MAP-A submissions was conducted by Dr. Norman Webb, University of Wisconsin, at DESE's request, to address this issue.

Dr. Webb led an alignment study team using the Webb Alignment Tool (WAT), which has been used to analyze curriculum standards and assessments in over 16 states preparing to meet Title I compliance as required by the U.S. Department of Education. Overall, the findings from this study indicated need for improvement in the alignment between the collection of portfolios and the Missouri communication arts and mathematics alternate standards. Specifically, the MAP-A had limited range. Teachers were required to assess only two APIs for each of two strands in both communication arts and mathematics, yet there are a large number of APIs.

Although the state determined that the Webb model did not lend itself well to assessing the alignment of an alternate assessment of MAP-A's nature, DESE in 2008 took the following actions to improve alignment.

Teachers were provided with specific guidance in addition to the assessment blueprint, requiring them to select APIs not only from different strands, but also from different goals within the strands. To help teachers implement these new requirements, DESE provided additional training for teachers focusing on the following:

1. selection of APIs and design of activities at appropriate depth-of-knowledge levels, and
2. creation of assessment activities that closely tie to the content in the given APIs.

DESE provided for the development of additional sample entries and scoring information to be made available to teachers to assist them in their efforts to improve alignment.

Other states have used a variety of approaches to evaluating the alignment of alternate assessments, many based on modifications of the Webb model. DESE conducted a re-review of the mathematics and communication arts in conjunction with the NCLB-required alignment study of the science MAP-A, in 2009. This alignment study, conducted in collaboration with Human Resources Research Organization (HumRRO), used the Links for Academic Learning methodology, a significantly different approach designed specifically for alternate portfolio assessments. The technical reports for the alignment reviews of all MAP-A content areas can be found at http://dese.mo.gov/college-career-readiness/assessment/assessment-technical-support-materials.

Consequences of MAP-A Testing

The *intended* consequence of the MAP-A is to enhance education outcomes for children with disabilities. To this end reports are provided to parents, teachers, schools, districts, and DESE, as described in the Scoring and Reporting chapter. Achievement Level Descriptors (ALDs) provide users with clear reference points for mastery at each grade level, so that scores can be readily interpreted and used to inform curriculum and IEP development. However, different APIs are used from year to year, so annual growth for individual children for specific APIs cannot be tracked.

Assessments can also have both positive and negative *unintended* consequences. Researchers disagree about whether assessment of consequences is an aspect of validity of a test or not, but there is widespread agreement that test designers and users should explore and fully disclose identified consequences of a test's use, including negative consequences, whenever possible (Linn 1997; Popham 1997; Shepard 1997).

Therefore, DESE commissioned a study to evaluate the consequences of its state assessment program. Part of that study addressed the consequences of MAP-A. Focus group discussions and surveys were used to collect information from several stakeholder groups, among them teachers, parents, students, school board members, superintendents, principals, and personnel from DESE, and its Regional Professional Development Centers. Through this study and other contact with MAP-A stakeholders, a number of findings have emerged, both positive and negative.

1. MAP-A design lends itself to incorporation into IEP goals.
2. Requirements to administer the assessments led to better interventions for some MAP-A students.
3. MAP-A documentation and time requirements are onerous.
4. It is difficult to select appropriate APIs for the most severely disabled students.
5. Teachers' knowledge or lack of knowledge about how to administer the assessment and about the content standards affects student scores.

These findings suggest that stakeholders perceive the MAP-A as valid for the purpose of informing instruction. The findings also suggest that the assessment is challenging for teachers. Findings from multiple perspectives were presented in a symposium at the American Educational Research Association's annual meeting in April 2009.

Teachers' Role

Teachers have a significant role in administering, reporting, and using the information provided by the MAP-A. Thus, teachers influence the validity of the test. DESE provides training and on-going guidance to help teachers administer and report the assessment validly. Nevertheless, teachers introduce construct-irrelevant variance that may compromise the validity of the MAP-A. There are three ways that administration error can reduce a student's score.

1. If a teacher fails to provide evidence of evaluation on a student work record, the student would get a "0" on the accuracy and independence scores for that data point. This "0" would be averaged with the other two data points for that collection period. (If the teacher miscalculates, the entry is simply re-calculated, which could lead to a lower or higher score.) Thus, a student who may be fully capable of an API, but whose teacher fails to adequately document this on the student work record, would get a score of "67" [(100 +

100 + 0)/3] instead of a score of "100." This would result in a lower rubric score, and may or may not result in a lower overall achievement level.

2. If a teacher gives the student an *acquisition* rather than *application* task, the student would get a lower "connections to standards" score, which would reduce the rubric score to 9-10 instead of 11. This may or may not result in a lower overall achievement level.
3. If a teacher (a) chooses an API not in the grade span, (b) describes an activity that doesn't connect with the API, or (c) assesses the student outside the specified time period, the student would receive a "no score" for that API, which becomes a "0" for the rubric score. For example, the API that "Cody" was assessed on was "*Write simple directions for doing something, considering a given audience*" (WP5.4). Cody wrote a grocery list for a recipe to be prepared by his life skills class. Cody showed accuracy and independence, but received a rubric score of "0" because his teacher simply reported that Cody found the ingredients, but did not discuss his writing, nor what kind of prompt was needed. Cody's score of "0" suggests inability to complete this API, when in fact he could write a shopping list. A rubric score of "0" would reduce his overall score by 11 points, out of a possible 44. This is likely to place him in a lower overall achievement level.

Teacher error in administration of the MAP-A could result in artificially low scores for students, whereas a correct administration could have permitted the students to display their competence. Thus, the meaning of a particular student's rubric score is not entirely clear, and may or may not be valid for determining the student's overall achievement level.

In summary, we cannot know all aspects of validity and reliability of the MAP-A because of the nature of this assessment. We cannot compare scores from one student to another. We cannot know how their performance pertains to same-age peers who are completing standardized assessments. However, strong efforts have been made to ensure that the assessment is as valid and reliable as possible for an individualized performance assessment. The evidence described above suggests that the MAP-A's psychometric properties contribute to its intended consequence, that is, to make inferences about student achievement on the Show-Me Standards for communication arts, mathematics, and science and to improve instructional programs.

MAP-A Information Security

Although the MAP-A submissions do not contain secure test items, they do contain confidential student information. The security of this information is maintained throughout the MAP-A cycle, from enrollment to receipt and check-in of submissions and through scoring, reporting, and archiving.

Enrollment

Electronic enrollment is handled by an ASP.NET website with a back-end Oracle database located behind a firewall. The website is protected by 128-bit SSL encryption, and the webserver is protected with IP filters for minimal exposure. The website requires users to login with a username and password assigned by ARC. District test coordinators can elect to create accounts within the system that can be used by their designees to enroll students. Enrollment is limited to students within a district and edit/delete can only be done by the district test coordinator.

Scoring

MAP-A binders returned to ARC for scoring are shipped to and stored in a secure warehouse adjacent to the rooms where scoring takes place. Access to the warehouse is limited to employees of ARC. Binders are staged for scoring in a secure manner. All ARC staff, including scoring personnel, sign a confidentiality agreement that is legally binding in which they agree not to discuss any aspect of the scoring process or confidential student information. The scoring process and confidential student information are defined to include, but not be limited to, any aspect of scoring, student responses, districts or teachers administering the MAP-A outside the scoring room. In addition, all ARC staff wear security identification name badges at all times during the workday. No cell phones, cameras, or other recording devices are allowed in scoring areas. All materials necessary for scoring, including training materials, rubrics, and MAP-A binders, remain in designated scoring areas. When scoring is concluded, discarded paper and scoring materials are securely shredded.

Data Storage

The enrollment data and score data are stored on University of Missouri servers which are behind firewalls. Additional network-level protection is provided by IP filters that block access to unauthorized subnets and protocols, regardless of their presence inside the intranet. Data are stored in a combination of Oracle database and flat text file formats. File-level access control lists prevent unauthorized staff from accessing MAP-A data on the network.

Future Plans

In the 2014-2015 assessment year, Missouri students eligible for alternate assessments will continue to use the MAP-A Science assessment and will use the Dynamic Learning Maps (DLM) assessment in English language arts and mathematics.

Changes to the MAP-A Science assessment program planned for the 2014-2015 assessment year include general refinement and updating of the resources prepared for teachers. The administration training will be updated to focus only on the Science assessment. Stakeholder feedback from the 2014 assessment year will help inform other changes.

The MAP-A *Instructor's Guide and Implementation Manual*, which is an important resource for teachers who administer the MAP-A Science, will be revised. The administration training which employs this manual as a guide will also be revised. The science sample entries and their accompanying explanations used in all MAP-A Science training and reference materials will be reviewed and updated as necessary.

Scorer training materials will be refined as appropriate to include samples of any trends in assessment activities and /or student responses.

DESE plans to continue its efforts to guide teachers in the selection of science APIs. Through training materials and resources available at the DESE website, teachers will be encouraged to select APIs at the most advanced level appropriate for the student and representing as broad a range as possible, given the student's IEP and the content standards required for assessment by the MAP-A Science blueprint. To assist teachers in this process, a record of science APIs on which a student has been assessed with the MAP-A and the year or years in which they were assessed will continue to be provided with the student-specific assessment materials sent to districts each fall. Instructional teams that include content-area experts will continue to assist each student's primary teacher in his or her efforts to develop appropriate MAP-A Science assessment activities.

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Appendix A: Communication Arts and Mathematics Assessment Development Process

Alternate Grade Level Expectation (AGLE) Expansion

Process
The MAP-A was developed as a collaborative project between Measured Progress, the Assessment Resource Center (ARC) and the Missouri Department of Elementary and Secondary Education divisions of Curriculum and Assessment and Special Education.

Stakeholder involvement
An advisory committee, representing perspectives of parents, teachers, and administrators, provided input during the development of this assessment. In addition, teacher work groups were formed at several points in the development and revision process. Mathematics and communication arts AGLE review work groups, composed of general and special education teachers, were formed. These teachers reviewed the AGLE documents that are the basis of the skills evidenced for this assessment. A third group of special education teachers participated in the pilot testing and scoring of this assessment, providing valuable feedback about the test design.

Development of the Communication Arts and Mathematics AGLEs
The AGLEs were developed for students with significant cognitive disabilities not working at the same level as their age level counterparts. The AGLEs were developed using Missouri's Show-Me Standards and GLEs for communication arts and mathematics. Measured Progress curriculum and special education specialists developed a draft of the AGLEs. The review committee participants and DESE staff provided input and recommendations for changes to the original draft. Using these recommendations Measured Progress revised the AGLEs. This document was used to develop the assessment performance indicators. Table 1 that follows shows how the document is organized and gives an example for each content area. The Missouri Show- Me Standards and AGLEs are not included in this manual because of the length of each document. They are located on the DESE web site at http://dese.mo.gov/college-career-readiness/assessment/map-a#Res.

Table 1: Missouri – Alternate Standards and AGLEs

Terminology		
Term/Description	**Examples**	
Content Area	**Mathematics**	**Communication Arts**
Standard/Strand Learning outcome expected for all students throughout all Grades.	"Data and Probability"	"Reading"
Big Idea A statement of the standard separating the essential components.	"Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them."	"Develop and apply skills and strategies to the reading process."
Concept Expectation for typical students described for each grade level.	"Pose questions and gather data about themselves and their surroundings."	"Demonstrate basic concepts of print ."
Alternate Performance Indicator (API) Skill or concept expanded from the typical GLE to a basic level.	**"DP1.1** Formulate questions that can be addressed with data collection. **a.** Identify what information is interesting to know (e.g., favorite TV show, ice cream; number of pets, teeth lost). **b.** Formulate and pose question to answer/find information (e.g., "How many pets do you have?")."	**"RD1.1**. Attend to literacy-based materials. **RD1.2.** Understand print tells story by attending to and/or reading story. **RD1.3.** Match objects to like objects."

MAP-A AGLE Development Process Overview

An overview of the AGLE development process for the MAP-A program follows in Table 2, showing the development process form its initial stages to the completed documents that have been circulated to school and district personnel.

Table 2: AGLE Development Process Overview

Development Step	Procedure of the Step
Initial expansion of GLEs completed in Missouri Summer of 2004	• Work completed in Missouri by DESE and Missouri educators.
Initial Measured Progress review and Recommendations Fall of 2004	• Measured Progress curriculum and special education specialists commented on and made recommendations • on the GLE expansion work done in Missouri. • Recommendations were shared with the MO Alternate Assessment Advisory in November 2004. • DESE convened a set of teachers to go over the recommendations from Measured Progress and decided on which recommendations to take.
Measured Progress draft expansion was presented for review February 2005	• Measured Progress curriculum and special education specialists expanded the GLE document to create AGLEs. • Review groups in mathematics and communication arts were convened to review the AGLE documents and make further suggestions.
AGLEs were Finalized April 2005	• Measured Progress made revisions based on review committee recommendations. • DESE gave final approval for the documents. • Documents were published on the DESE website.

The Pilot

Blueprint and Design of the Pilot Assessment

Measured Progress presented an initial proposal for the assessment blueprint and design to the Alternate Advisory Committee in November 2004. Committee members were quite concerned with the amount of paperwork that the re-design might require for teachers to compile. The Advisory Committee suggested less evidence be collected than the original proposal. They also made recommendations for some changes to the blueprint. DESE listened to the recommendations of their Advisory Committee and requested that changes be made to the assessment blueprint and design. Measured Progress presented this assessment blueprint and design to the Technical Advisory Committee in February 2005 seeking their recommendations and approval. The blueprint that was presented consisted of a consistent content strand across all grade levels and a second content strand that alternated by grade span (3-5, 6-8 and HS) for each content area being assessed. The TAC was not comfortable with this blueprint and recommended that all content strands in each content area be assessed at all grade levels. This change was incorporated for the pilot, requiring teachers to assess students on five math strands and 4 communication arts strands. Table 3 on the following page outlines the assessment blueprint that was recommended by the TAC and utilized for the pilot.

Table 3: Pilot Assessment Blueprint

Content Area	Title of Strand	Grade Focus
Mathematics Pilot	Numbers and Operations **(NO)**	Required at all grade levels
	Algebraic Relationships **(AR)**	
	Geometric and Spatial Relationships **(GS)**	
	Data and Probability **(DP)**	
	Measurement **(ME)**	
Communication Arts Pilot	Reading: Develop and apply skills and strategies to the reading process, A-H **(RD)**	Required at all grade levels
	Reading: Develop and apply skills and strategies to the reading process, F-I **(RP)**	
	Writing: Compose well-developed text using standard English conventions **(WC)**	
	Writing: Apply a writing process in composing text or write effectively in various forms and types of writing **(WP)**	

The TAC made recommendations on the assessment design as well. The Advisory group that had made initial recommendations to the design proposed by Measured Progress was concerned about the amount of paperwork required by teachers and wanted the collection of evidence to be limited to a data sheet and one piece of student work for each API. The TAC felt that this was insufficient evidence upon which to make assessment judgments and recommended that, in addition to a data sheet, at least three pieces of student work be collected per API. Tables 4 and 5 show the design utilized for the pilot.

Table 4: Mathematics Pilot Assessment Design

Mathematics														
Strand 1 (NO)			Strand 2 (AR)			Strand 3 (GS)			Strand 4 (DP)			Strand 5 (ME)		
API 1			API 1			API 1			API 1			API 1		
Data Sheet			Data Sheet			Data Sheet			Data Sheet			Data Sheet		
CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS

Table 5: Communication Arts Pilot Assessment Design

Communication Arts											
Strand 1 (RD)			Strand 2 (RP)			Strand 3 (WC)			Strand 4 (WP)		
API 1			API 1			API 1			API 1		
Data Sheet			Data Sheet			Data Sheet			Data Sheet		
CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS	CP1 WS	CP2 WS	CP3 WS

API= Alternate Performance Indicator CP= Collection Period WS= Work Sample

Pilot Training

The pilot included a recruitment effort of up to 200 teachers, with each teacher limited to piloting the MAP-A with one or two students. The pilot was designed to accommodate up to 100 students per grade in grades 5, 7, 10 and 11. All teachers in the pilot were required to attend a one-day training session that was offered at four locations throughout the state. The dates and locations were as follows.

Table 6: 2004-2005 Pilot Teacher One-Day Trainings

Location	Date	Total Number of Participants
St. Louis	Tuesday, February 22	34
Columbia	Wednesday, February 23	40
Springfield	Thursday, February 24	26
Kansas City	Friday, February 25	29
	TOTAL	**129**

All pilot teachers were provided a MAP- Alternate Examiner's Manual and the training required to administer the pilot. Teachers were further supplied with a CD version of ProFile, a software tool that could be used by teachers to record their data and evidence on the computer and then print out at the end of the collection.

The implementation window for the pilot was from March 1 to April 29, 2005. Teachers were provided information on how and when to return portfolios to the Assessment Resource Center (ARC). Teachers were further asked to complete a survey related to the pilot process and to return it with their pilot portfolios in early May 2005. (See survey responses in Appendix B.)

While the recruitment had specifically targeted students in grades 5, 7, 10 and 11 there were teachers who were interested in piloting the new MAP-A that did not have students currently in those grades so the recruitment expanded to allow student in grades 3- 8, 10 and 11. Table 7 below indicates the actual number of portfolios that were turned in for the pilot, and the grades and content areas covered.

Table 7: 2004-2005 MAP-A Pilot Participation

	Number of Students	
Grade Level	**Mathematics**	**Communication Arts**
3	4	4
4	7	7
5	13	13
6	6	6
7	27	27
8	3	3
10	23	6
11	4	11
All Grades	**87**	**77**

Pilot Scoring

The pilot portfolios were returned to ARC in early May. The portfolios were logged in and prepared for scoring. The scoring institute took place over three days in June 2005. There were four table leaders and twenty-four scorers. The table leaders and scorers were recruited from individuals involved in either the pilot development process or the piloting process itself.

Table leaders were trained in advance and required to qualify to score. Scorers were involved in a half day training and were also required to qualify to score. DESE staff were on site and available to make any policy decisions that arose and to address any scoring rules that needed to be agreed upon during the scoring process. Scoring took a day and a half. All portfolios were scored by two scorers in a double blind fashion. Any rubric dimensions that were not exact matches between scorer 1 and scorer 2 were scored by the table leader, whose score became the score of record. The inter-rater consistency for the pilot scoring is shown in Table 8 below.

Table 8: Pilot Scoring Inter-rater Consistency

Subject	Percent of 1st Scores that Matched 2nd Scores	Kappa Coefficient
Math	80.50	0.703
Communication Arts	80.40	0.689

Pilot Survey Results

Both pilot teachers and pilot scorers were asked to complete extensive surveys about the processes they had been involved in. Pilot teachers were asked questions that ranged from the usefulness of the training and materials provided to the assessment design itself and how well teachers felt it worked for their students. Pilot scorers were asked about the training they received, their understanding of the scoring process and the amount of time it took to score. Both the pilot teacher survey and pilot scorer survey results are provided in Appendix B. In addition to the scorer survey the state was able to facilitate a focused feedback session at the end of the scoring institute with the scorers.

Revisions from the Pilot

Feedback from the surveys and state led focused feedback session were used to make

changes to the assessment training, materials and design for the 2005-2006 implementation year. Some areas for further clarification and training included providing more examples of writing up evaluations of the student and understanding application of skills and how to evidence that. Further highlighted was a need to clarify some of the language on the forms being used to evidence student work. Suggestions were also made to improve the software tool ProFile for ease of use by teachers. All of these types of changes were incorporated into the materials provided to teachers in the form of the manual, teacher training and ProFile.

The most extensive change that came as a direct response from the feedback of the pilot teachers and scorers was the idea that nine strands for assessment was too much to evidence in the timeframe of the assessment and too disjointed for students. DESE listened carefully to this feedback and sought advice from Measured Progress and from the federal government about this change. Ultimately the feedback they received on all fronts led to a change in the assessment blueprint and design so that teachers were assessing students on two strands at each grade level per content area, evidencing two APIs from each strand. The final assessment blueprint and design are shown in Tables 9 and 10.

Table 9: Final Assessment Blueprint

Content Area	Title of Strand	Grade Focus
Mathematics	• Numbers and Operations **(NO)**	Required at all grade levels
	• Algebraic Relationships **(AR)** *AND*/***OR*** • Geometric and Spatial Relationships **(GS)**	Required for elementary
	• Data and Probability **(DP)**	Required for middle school
	• Measurement **(ME)**	Required for high school
Communication Arts	• Reading: Develop and apply skills and strategies to the reading process **(RD and/or RP)**	Required at all grade levels
	• Writing: Compose well-developed text using standard English conventions **(WC)**	Required for elementary
	• Writing: Apply a writing process in composing text or write effectively in various forms and types of writing **(WP)**	Required for middle school and high school

Table 10: Final Assessment Design

Mathematics											
Strand 1 (NO)						Strand 2 (by grade span)					
API 1			API 2			API 1			API 2		
Data Sheet			Data Sheet			Data Sheet			Data Sheet		
CP 1	CP 2	CP 3	CP 1	CP 2	CP 3	CP 1	CP 2	CP 3	CP 1	CP 2	CP 3
WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS

Communication Arts											
Strand 1 (RD or RP)						Strand 2 (by grade span)					
API 1			API 2			API 1			API 2		
Data Sheet			Data Sheet			Data Sheet			Data Sheet		
CP 1	CP 2	CP 3	CP 1	CP 2	CP 3	CP 1	CP 2	CP 3	CP 1	CP 2	CP 3
WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS

MAP-A Components

Required Documentation
The assessment requirements for the MAP-A include the following documentation:

Table of Contents Checklist acts as a guide for organization of the MAP-A.
Validation Form **(**found in Appendix B) provides documentation of the individuals who have reviewed and/or contributed to the MAP-A. Obtain the principal verification signature prior to submission of the MAP-A.
Entry/Data Summary Sheet **(**found in Appendix A) must be used for each API documented within the assessed content area strands. The Data Summary Sheet is used to record student performance on each API assessed. The student's score for Level of Accuracy and Level of Independence for each API will be determined based on the percentages recorded on the Entry/ Data Summary Sheet.
Student Work Samples must be submitted for each collection period of each assessed API. Each student work sample should demonstrate the **application** of the API in a standards-based activity. Two different options have been provided for the submission of the student work samples**:**

- Option 1: Tangible Student Work Product
  - **o** Actual product completed by student
    - Worksheets
    - Drawings or writings
    - Journal entries
    - Projects
  - **o** Complete and submit Tangible Work Product Label (Attached to actual student work)

- Option 2: Written Teacher Observation and Anecdotal Record
  - **o** Used when there is no tangible work product to submit
  - **o** Complete and submit Anecdotal Record Form as a student work sample

Samples of the above forms are on the pages that follow.

Student: _____ School Year:_____ Grade: 3 4 5

Table of Contents Checklist
(Organize MAP-A in the following manner)

☐ Validation Form

Communication Arts Strand 1: Reading (RD, RP)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Communication Arts Strand 1: Reading (RD, RP)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
☐ Collection Period 3 Student Work Sample

Mathematics Strand 2: Algebraic Relationships and/or Geometric &Spatial Relationships
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Sample
☐ Collection Period 2 Student Work Sample
Collection Period 3 Student Work Sample

Validation Form **Student:**_____ **School Year:**_____

This form provides documentation of the individuals who have reviewed and/or contributed to this MAP-A.

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Please obtain administrator's (principal, assistant principal, or special education director) signature prior to submission.

_____

Signature Date

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Student: _____ Grade: 3 4 5 6 7 8 11

Entry/Data Summary Sheet	Communication Arts	Strand 1: Reading (RD/RP)
API #	**API Description**	
Task/Activity Description:		

	Collection Period 1 January 3-January 27					Collection Period 2 January 30-February 17					Collection Period 3 February 20-March 17				
Date															
Data Type															
Accuracy %															
Independence%															
Average % for Collection Period	Accuracy:					Accuracy:					Accuracy:				
	Independence:					Independence:					Independence:				

Data Type Key:

WS= Student Work Sample (Tangible Student Work Product **OR** Teacher Observation/Anecdotal Record Form)

DC= Data Collection System

	API Entry Average
Level of Accuracy	
Level of Independence	

MAP-A Tangible Work Product Label

(Attach to actual student work product)

Student Name:		**Date:**
Content Area (Circle One): **Mathematics** **Communication Arts**		**Strand** (Circle One): **1 or 2**
API:	**Description:**	
Task/Activity Description: (Write a brief description of the task/activity that resulted in the attached work product.)		
Evaluation of Student's Performance: (Describe the student's actual performance. Include information on how the percentages were determined for both Accuracy and Independence.)		
Level of Accuracy _____%	**Level of Independence** _____%	

MAP-A Teacher Observation & Anecdotal Record Form

(Student Work Sample)

Student Name:		**Date:**
Content Area (Circle One): **Mathematics** **Communication Arts**		**Strand** (Circle One): **1 or 2**
API:	**Description:**	
Student's Interaction in Task/Activity: (Write a brief description of the task/activity. Be sure to include information on how the student participated in the activity.)		
Evaluation of Student's Performance: (Describe the student's actual performance. Include information on how the percentages were determined for both Accuracy and Independence.)		
Level of Accuracy _____%	**Level of Independence** _____%	

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Appendix B: Science Pilot Assessment Development Process

Alternate Grade Level Expectation (AGLE) Expansion

Process
The MAP-A Science Pilot was developed as a collaborative project between Measured Progress, the Assessment Resource Center (ARC) and the Missouri Department of Elementary and Secondary Education divisions of Curriculum and Assessment and Special Education.

Stakeholder involvement
The Science Assessment Development and Review Committee, representing perspectives of parents, teachers, and administrators, provided input during the development of this assessment. In addition, teacher work groups were formed at several points in the development and revision process. Science review work groups, composed of general and special education teachers, were formed for each grade level. These teachers reviewed the AGLE documents that are the basis of the skills evidenced for this assessment. A third group of special education teachers participated in the pilot testing and scoring of this assessment, providing valuable feedback about the test design. (See Attachment 1 for stakeholder lists.)

Development of the Science AGLEs
The AGLEs were developed for students with significant cognitive disabilities not working at the same level as their age level counterparts. The AGLEs were developed using Missouri's Show-Me Standards and GLEs for science. Measured Progress curriculum and special education specialists developed a draft of the AGLEs. The review committee participants and DESE staff provided input and recommendations for changes to the original draft. Using these recommendations Measured Progress revised the AGLEs. This document was used to develop the assessment performance indicators. Table 1 that follows shows how the document is organized and gives an example. The Missouri Show- Me Standards and AGLEs are not included in this manual because of the length of each document. They are located on the DESE web site at http://dese.mo.gov/college-career-readiness/assessment/map-a#Res.

Table 1: Missouri – Alternate Standards and AGLEs

Terminology	
Term/Description	**Examples**
Content Area	**Science**
Strand Learning outcome expected for all students throughout all grades.	"Properties and Principles of Matter and Energy"
Big Idea A statement of the standard separating the essential components.	"Changes in properties and states of matter provide evidence of the atomic theory of matter."
Concept Expectation for typical students described for each grade level.	"Objects, and the materials they are made of, have properties that can be used to describe and classify them."
Alternate Performance Indicator (API) Skill or concept expanded from the typical GLE to a basic level.	**"ME1.1** Explore physical properties of objects. **a.** Recognize that objects have specific properties (i.e., size, shape, color, mass, smell, texture, and/or temperature). **b.** Using one or more of the five senses, explore the physical properties of different objects (e.g., identify one physical property of an object- the ball is round; it is red; the box is big; the ice cube is cold; the surface is rough; the feather is light)."

MAP-A AGLE Development Process Overview
An overview of the AGLE development process for the MAP-A Science Pilot follows in Table 2, showing the development process from its initial stages to the completed documents that have been circulated to school and district personnel. (See Attachment 2 for survey results from the July and August review meetings.)

Table 2: Science AGLE Development Process Overview

Development Step	Procedure of the Step
Science Assessment Development and Review Committee Meeting Spring 2006	• Measured Progress presented the proposed design for the science MAP-A. • Participants reviewed the GLEs and made recommendations to DESE on what science GLEs to expand.
Measured Progress draft expansion was presented for review July and August 2006	• Measured Progress curriculum and special education specialists expanded the GLE document to create AGLEs. • Review groups in science were convened to review the AGLE documents and make further suggestions.
AGLEs were finalized September 2006	• Measured Progress made revisions based on review committee recommendations. • DESE gave final approval for the documents. • Documents were published on the DESE website.

The Pilot

Blueprint and Design of the Pilot Assessment
Measured Progress presented an initial proposal for the assessment blueprint and design to the Science Assessment Development and Review Committee. The science strands in Missouri consist of 2 process strands and 6 content strands. Discussion was had about how to tie these strands together for assessment. It was decided that the science assessment would consist of assessing four strands at each grade level, but that this would be done within two entries. Teachers would be assigned the four required strands at each grade level, but would have a choice in how to pair the strands so that each entry would be comprised of one process strand API and one content strand API. The Science Assessment Development and Review Committee did not make any changes to the proposed design.

The Missouri TAC was presented with Science design in August of 2006. The blueprint and design follow in Tables 3 and 4.

Table 3: Pilot Assessment Blueprint

Content Area	Title of Strand	Grade Focus
Science Pilot	• Characteristics and Interactions of Living Organisms **(LO)**	Required for Elementary Grade 5
	• Changes in Ecosystems and Interactions of Organisms with Their Environments **(EC)**	Required for Elementary Grade 5
	• Properties and Principles of Matter and Energy **(PP)**	Required for Middle School Grade 8
	• Properties and Principles of Force and Motion **(FM)**	Required for Middle School Grade 8
	• Processes and Interactions of the Earth's Systems (Geosphere, Atmosphere, and Hydrosphere) **(ES)**	Required for High School Grade 11
	• Composition and Structure of the Universe and the Motion of the Objects Within It **(UM)**	Required for High School Grade 11
	• Scientific Inquiry **(SI)**	Required at all Grade Levels
	• Impact of Science, Technology, and Human Activity **(IS)**	Required at all Grade Levels

Table 4: Pilot Assessment Design

Science			
Strand 1 (SI and by grade span)		Strand 2 (IS and by grade span)	
Process API 1/Content API 2		Process API 1/Content API 2	
Data Sheet		Data Sheet	
CP 1 WS	CP 2 WS	CP 1 WS	CP 2 WS

API= Alternate Performance Indicator CP= Collection Period WS= Work Sample
SI= Scientific Inquiry IS=Impact of Science, Technology, and Human Activity

Pilot Training

The pilot included a recruitment effort of up to 200 teachers, with each teacher limited to piloting the MAP-A with one or two students. The pilot was designed to accommodate up to 100 students per grade in grades 5, 8 and 11. All teachers in the pilot were required to attend a one-day training session that was offered at four locations throughout the state. The dates, number of participants, and locations were as follows:

Table 5: 2006-2007 Pilot Teacher One-Day Trainings

Location	Date	Number of Participants
Kansas City	Tuesday, December 11	38
Springfield	Wednesday, December 12	39
Columbia	Thursday, December 13	32
St. Louis	Friday, December 14	26
	TOTAL	135

All pilot teachers were provided a MAP- Alternate Examiner's Manual and the training required to administer the pilot. Teachers were further supplied with a CD version of Measured Progress ProFile, a software tool that could be used by teachers to record their data and evidence on the computer and then print out at the end of the collection.

The implementation window for the pilot was from January 8 to March 2, 2007. Teachers were provided information on how and when to return portfolios to the Assessment Resource Center (ARC). Teachers were further asked to complete a survey related to the pilot process and to return it with their pilot portfolios by March 19, 2007. (See survey responses in Attachment 2).

While the recruitment had specifically targeted students in grades 5, 8 and 11 there were teachers who were interested in piloting the new MAP-A Science Pilot that did not have students currently in those grades so the recruitment expanded to allow student in grades 3-8, 10, and 11. Table 6 indicates the actual number of portfolios that were turned in for the pilot, and the grades covered.

Table 6: 2004-2005 MAP-A Pilot Participation

Grade Level	Number of Students
3, 4, **5**	28
6, 7, **8**	50
9, 10, **11**	15
All Grades	92

Pilot Scoring

The pilot portfolios were returned to ARC in mid March. The portfolios were logged in and prepared for scoring. The scoring institute took place over three days in June 2007. There were five table leaders and twenty-five scorers. The table leaders and scorers were recruited from individuals involved in either the pilot development process or the piloting process itself.

Table leaders were trained in advance and required to qualify to score. Scorers were involved in a half day training and were also required to qualify to score. Qualifying to score required individuals to score at least 80% agreement with a set of two entries that had been prepared and scored in advance of qualification. DESE staff were on site and available to make any policy decisions that arose and to address any scoring rules that needed to be agreed upon during the scoring process. Scoring took a day and a half. All portfolios were scored by two scorers in a double blind fashion. Any rubric dimensions that were not exact matches between scorer 1 and scorer 2 were scored by the table leader, whose score became the score of record. The inter-rater consistency for the pilot scoring is shown in Table 7 below.

Table 7: Pilot Scoring Inter-rater Consistency

Subject	Percent of 1st Scores that Matched 2nd Scores	Kappa Coefficient
Science	80.20	0.772

Pilot Survey Results

Both pilot teachers and pilot scorers were asked to complete extensive surveys about the processes they had been involved in. Pilot teachers were asked questions that ranged from the usefulness of the training and materials provided to the assessment design itself and how well teachers felt it worked for their students. Pilot scorers were asked about the training they received, their understanding of the scoring process and the amount of time it took to score. Both the pilot teacher survey and pilot scorer survey results are provided in Attachment 2. In addition to the scorer survey the state was able to facilitate a focused feedback session at the end of the scoring institute with the scorers.

Two main themes were voiced in the pilot teacher and pilot scorer survey results. Teachers clearly wanted to be provided more examples and samples of science entries, especially focusing on how to connect the process and content APIs within the same entry. The second theme was that teachers felt it would be very important to provide enough training that teachers would feel comfortable completing the science portion of the MAP-A.

MAP-A Components

Required Documentation
The assessment requirements for the MAP-A include the following documentation:

Table of Contents Checklist acts as a guide for organization of the MAP-A.
Validation Form provides documentation of the individuals who have reviewed and/or contributed to the MAP-A. Teachers obtain the principal verification signature prior to submission of the MAP-A.

Entry/Data Summary Sheet must be used for each API documented within the assessed content area strands. The Data Summary Sheet is used to record student performance on each API assessed. The student's score for Level of Accuracy and Level of Independence for each API is determined based on the percentages recorded on the Entry/ Data Summary Sheet. Student Work Samples must be submitted for each collection period of each assessed API. Each student work sample should demonstrate the **application** of the API in a standards-based activity. Two different options are provided for the submission of the student work samples**:**

- Option 1: Tangible Student Work Product
    - Actual product completed by student
        - Worksheets
        - Drawings or writings
        - Journal entries
        - Projects
    - Complete and submit Tangible Work Product Label (Attached to actual student work)

- Option 2: Written Teacher Observation and Anecdotal Record
    - Used when there is no tangible work product to submit
    - Teachers complete and submit an Anecdotal Record Form as a student work sample.

Samples of the above forms are on the pages that follow.

Table of Contents Checklist

Elementary

Student: _____	School Year: _____	Grade: 5

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 7: Scientific Inquiry (IN) and Strand 3 (LO) or 4 (EC)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 8: Impact of Science, Technology, and Human Activity (ST) and Strand 3 (LO) or 4 (EC)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

MAP-A **Page # _____**

Validation Form

Student:_____ **Grade:**_____

District & School of Attendance:_____

This form provides documentation of the individuals who have reviewed and/or contributed to this MAP -A.

Name:_____ Position: _____

Contribution to the MAP-A: Person Responsible for the MAP-A Administration

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

Name:_____ Position: _____

Contribution to the MAP-A:_____

_____

OPTIONAL - Use this space to provide information regarding the student's mode of communication.

Please obtain administrator's (principal, assistant principal, or special education director) signature prior to submission.

_____

Signature Date

_____

Print Name

MAP-A **Page #** _____

Entry/Data Summary Sheet
Science

Student Name:				**Grade:**		
Content Area:				**Process Strand:** **Content Strand:**		
Process API: **Content API:**	**Process API Description:** **Content API Description:**					
	Collection Period 1 **January 14 – February 8**			**Collection Period 2** **February 11 – March 7**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date						
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %						
Independence %						
Average % for Collection Period	Accuracy:			Accuracy:		
	Independence:			Independence:		

	API Entry Average
Level of Accuracy	
Level of Independence	

MAP-A

Page # _____

Student Work Record
Science

Attach student work sample if appropriate

Student Name:	**Grade:**	**Date:**
Content Area:		**Process Strand:** **Content Strand:**
Process API: **Content API:**	**Process API Description:** **Content API Description:**	
Task/Activity: (Write a brief description of the task/activity, its connection to both APIs, and how it demonstrates application.)		
Evaluation of Student's Performance:		
Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence**.	
Level of Accuracy: _____%	**Level of Independence: _____%**	

MAP-A **Page # _____**

Attachment 1

Stakeholder Lists

- Design and Review Committee
- AGLE Review Committee
- Pilot Scorers

Design and Review Committee

Name	Role
Cheryl McCutcheon	Special Education Administrator
Katie Cook	RTAC
Bev Woodhurst	SAEP Member
Karen Allan	Special Education Director
Lynn Fain	Curriculum Coordinator
Lisa Buschart	Special Education Teacher
Barbara Stevens	Interim Superintendent
Robin Krick	Curriculum Coach
Susie Register	Special Education Teacher
Eric Hadley	Science Teacher
Charlotte Spencer	RTAC
Catherine McCormack	
John Palmer	Special Education Administrator
David Fager	Special Education Teacher
Kathie Wolff	Special Education Administrator
Janice Putman	RTAC
Eric Remelius	MO Parent Involvement Coordinator
Shirley Woods	Parent
Karen Willits-McCormack	Science
Tammy Boyt	

AGLE Review Committee

Name	Role
Katie Cook	RTAC
Karen Allan	Special Education Director
Lynn Fain	Curriculum Coordinator
Lisa Buschart	Special Education Teacher
Robin Krick	SLPS
Susie Register	Special Education Teacher
Charlotte Spencer	RTAC
John Palmer	Special Education Administrator
Kelly Fortune	SSD
Janice Putman	RTAC
Karen Willits-McCormack	Science/
Tammy Boyt	Science Teacher (Middle School)
Karen Wells	SSSH
Jackie Snow	Curriculum Specialist, Secondary Science 7-12
Karen Leigh-Kral	
Pam Mills	Earth Science Teacher (8th Grade)
Tracy Brown Hager	Science Teacher (Elementary)
Cay Miller	Science Curriculum Director
Jamie Edwards	SPED Teacher, 3-7

Pilot Scorers

Name	School District
Christine Baker	St. Louis Public
Anna Berkbuegler	Fredericktown R-I
Suzanne Bodkins	Dixon R-I
Katherine Bradley	Iberia
Terri Bradley	Archie R-V
Mindy Brown	Meadow Heights R-II
Linda Cook	Miller R-II
Tracy Cooper	State School
Glenn Dalton	Ste Genevieve R-II
Tanya Deering	Lincoln County R-III
David Fager	East Buchanan
Lynn Fain	Columbia Public
Kelly Fortune	Spec. Sch Dst
Shannon Grubb	Grain Valley R-5
Judith Hallmark	Seymour
Jane Harrington	Park Hill
Jennifer Johnson	Junction Hill C-12
Robin Krick	St. Louis Public
Sally LaVigne	Camdenton R-III
Thelma Livesay	Louisiana R-II
Nicole Martinez	North Kansas City
Marsha Meeker	Shelby County R-II
Julie Moore	Cassville R-IV
Linda Newman	Hillsboro R-III
Jennifer Siem	Spec. Sch Dst
Lisa Stevenson	Shelby County R-IV
Lori Wallace	Knox County R-I
Lynn Wapelhorst	Columbia Public
Jaime Edwards	Columbia Public

Attachment 2

Survey Results:

- Science AGLE Review Committee Survey Results: July
- Science AGLE Review Committee Survey Results: August
- Pilot Training Survey Results
- Pilot Teacher Survey Results
- Pilot Scorer Survey Results
- Train-the-Trainer Survey Results

MAP-A
Science AGLE Review Committee Evaluation
July 11 and 12, 2006
17 Respondents

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	
Overall the AGLE review worked well.	1	2	3	4 6	5 11	4.65
The overview on the first day with the whole group was helpful.	1	2	3 2	4 6	5 9	4.41
Once in the small groups the task at hand was clearly defined.	1	2	3	4 4	5 13	4.76
The facilitation of my small group went well.	1	2	3 1	4 3	5 13	4.71
The materials provided were helpful in the process.	1	2 1	3	4 4	5 12	4.59
The facility worked well for this meeting.	1	2	3	4 4	5 13	4.76
The food was great.	1	2 2	3 1	4 7	5 7	4.12
Three things I liked best about this experience…	• Great learning experience (3) • Gaining more insight and knowledge of the subject • New perspective • Overall , an enlightening and enjoyable experience • Small group work (2) • Working with the science teachers (2) • High level of professionalism of participants (3) • Being with other professionals- blend of roles and experience (4)					

	• Excellent facilitation- whole and small group, very patient (4) • Skilled leadership provided by MP and ARC • Having definitions for the teacher • Organization • Flow of sessions • Timeline for meeting was followed • Discussion • Facility (5)	
Three things I would change about this experience…	• Establish vocabulary first (5) • Would like to see the Division of Special Education of DESE represented • Clear assignments for facilitator and recorder • Establish norms • Bring in those not familiar with MAP-A early, more info for those unfamiliar (3) • Full copy of GLEs for everyone (2) • Break into smaller groups- get work done faster	
Other comments…	• Cover use of i.e. and e.g. at training for teachers • Meeting well designed and planned • Facility was great and pleasant • Have stakeholder present and at the table (not in hall or leaving early) • APIs for science may be the same as APIs in math and Com Arts- how will this be addressed when individual teacher chooses APIs in each area? • Room temperature (2) • More bottled water	

MAP-A
Science AGLE Review Committee Evaluation
August 8 and 9, 2006

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Average
Overall the AGLE review worked well. **Comment:**	1	2	3	4 4	5 9	4.7
The overview on the first day with the whole group was helpful. **Comment:**	1	2	3	4 3	5 10	4.8
Once in small groups the task at hand was clearly defined. **Comment:**	1	2	3	4 2	5 11	4.8
The facilitation of my small group went well. **Comment:**	1	2	3	4 3	5 10	4.8
The materials provided were helpful in this process. **Comment:**	1	2	3	4 2	5 11	4.8
The facility worked well for this meeting. **Comment:**	1	2 1	3	4 4	5 8	4.5
The food was great. **Comment:**	1	2 1	3 4	4 5	5 3	3.8
Three things I liked best about this experience…	• Using lunch dessert as out afternoon break/snack was a good idea. • Stakeholders well represented; hotel accommodations EXCELLENT! PREP WORK FOR PACKETS/HANDOUTS – GREAT! • Working, collaborating w/other professionals and consistency of participation present. • Alex is great! Wonderful to work with! • Collaboration w/ colleagues & Measured Progress. • Extremely well organized. • We got started on time and stuck with the schedule.					

	• Everyone's opinion was valued and we were comfortable sharing ideas. • Small group work – organization of materials with color coding – obvious expertise of group/team leaders. • 1. The people we worked with – leaders & teachers; 2. the 2nd location was great! 3. Working in small groups then reporting to large group format. • Food & cleanliness & friendliness were wonderful.
Three things that I would change about this experience…	• Have coffee, sodas, & bottled water in each breakout room. Have fruit out for snacking on, not chocolate. • Use audio/visual projection to record changes for all to see (no repeats & recaps); have GLEs in our packet. • Location. • The meeting room was too cold. The temperature was not regulated. • More pre-review time to look over drafts of July work. (I got the materials in plenty of time but had not anticipated allowing time in my schedule to review). • Room temperature on 1st day was chilly (but not on the second). • 1. A little more moving us along from the facilitator on Aug 8th when we were stagnating a bit. 2. warmer room. • Room was cold. • Receiving the GLEs on Aug.8 was delayed.
Other Comments…	• Color coded GLEs worked well, Suggest that DESE keep color coding in final draft. • Great accommodations. • The final copy of the strands given back to us in color- that was really helpful! Thanks. • Again, this was a great learning experience for me. • Overall the accommodations were great. I appreciate the opportunity to participate in this enriching learning activity. • Can the final copies of the AGLEs be in color? • Could I have the names & emails of the Missouri group for my CEC mailing list re: CEC Spring Conference Mailings? – Lynn Fain • I liked separating the 4 days into 2 groups of 2 days. We were able to read & reflect on our July work before the Aug. work & we were able to come back with a fresh perspective.

MAP-A
Science Pilot Training Kansas City
December 11–14, 2006

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Average
Overall the training worked well.	0	0	1	17	8	4.27
The overview and manual walk through were helpful.	0	0	2	11	13	4.42
Applying the Step-by Step procedures to a student sample helped me understand the new MAP-A process.	1	0	5	10	10	4.08
The Writing Activity was helpful.	0	2	10	9	5	4.00
The Planning Worksheet Activity was helpful.	0	2	3	13	8	4.04
The questions I had about the pilot were answered.	0	0	1	12	13	4.46
The materials provided were helpful.	0	0	2	11	13	4.42
The facility worked well for this meeting.	3	1	3	10	9	3.81

Three things I liked best about this experience…	• Location • Information • Working with others • Paired with grade level MAP-A people • Knowledge people in charge • Willingness to answer individual questions • Informative • Close location • Relevant material • Manual was helpful • Helpful trainer • Great food • Very useful • Materials • Food • Informal atmosphere • Interaction and discussion with people from other districts • Other perceptions of the MAP-A • Materials • Getting this info early enough to process • Not your fault (facility) hopefully you can get money back because of the band. Room temp was also uncomfortable • PowerPoint • Training materials • Meeting other teachers from the field • Getting other ideas. • Knowledgeable staff • Excellent food • Collaboration with others visual presentations, exploring real life activities for students. • It gave me a chance to talk to other high school teachers and get their input into completing a science MAP-A • Having time to choose API's
Three things I would change about this experience….	• Shorter time • Workshop closer to my school • Earlier start and leave times • Bring elementary teacher • Working on individuals in own classroom was most helpful

	• Next door people were loud • Slower pace • Too much chatting at my table • Amount of time – I think a morning would have been enough • Writing about another kiddo is hard and I can process in a room full of people • Afternoon was a waste • Since we all have done MAP-A, the “pretend” exercise (Kathy) was unnecessary. We were all ready and eager to roll on our own kids. • Music next door • Time length (too long) • I wish I knew more about science. • Ministers next door too loud. • Work in small groups of 2 -3 • We needed more time for the writing activities and the planning activity
Questions I still have…	

MAP-A
Science Pilot Training Springfield
December 11–14,2006

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Average
Overall the training worked well.	0	0	0	15	11	4.42
The overview and manual walk through were helpful.	0	1	0	14	11	4.35
Applying the Step-by Step procedures to a student sample helped me understand the new MAP-A process.	0	0	1	12	13	4.46
The Writing Activity was helpful.	0	1	3	13	9	4.15
The Planning Worksheet Activity was helpful.	0	0	4	15	7	4.12
The questions I had about the pilot were answered.	0	0	3	12	10	4.28
The materials provided were helpful.	0	0	1	12	13	4.46
The facility worked well for this meeting.	0	1	1	14	10	4.27

Three things I liked best about this experience…	• I understand better because of the step by step walk through • The writing activity was so helpful and being able to share with others • More in dept than the MAP-A math and comm.. arts • Able to converse with others • Time to work with grade level colleagues • Students samples • Collaborating with peers, becoming knowledgeable for my district, clear guidelines. • Sharing ideas with others • Getting ideas from others • Receiving reassurance on activities • Gaining practice experience. • Breakfast, lunch, talking to colleagues • Group work • Hands on writing activities • Trainers were well informed professional. All questions were answered. • Still absorbing the information. Overall good training. • Lunch, mileage, manual • Handouts, work samples, soda • I appreciate that we were able to do a write up for our own student. The hands on of working with API'S • Collaboration • Length • Fairly well paced
Three things I would change about this experience….	• More user friendly API's • More time to look over API's • Clearer on activities 1 and 2 on last worksheet. Math and Comm Arts have been taught. • You have a roomful of teachers who are familiar with MAP-A. Perhaps don't spend as much time on basic MAP-A Science. • Tables were a little cramped. • Processing the info takes time, there is no changing that. • I won't tell a group to stop talking and get on task when they already were on task!
Questions I still have…	• I will let you know as I go along • I'm having a problem being able to match the process and content areas • How to combine the IS strand. API's with the PP and FM • To use same activity. I understand some students could have tweaking, didn't know it was an option. • How to assess those included in Reg. Ed. Classes

MAP-A
Science Pilot Training Columbia
December 11–14, 2006

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Average
Overall the training worked well.	0	0	1	14	14	4.45
The overview and manual walk through were helpful.	0	0	2	10	17	4.52
Applying the Step-by Step procedures to a student sample helped me understand the new MAP-A process.	0	0	1	12	16	4.52
The Writing Activity was helpful.	0	1	2	11	15	4.38
The Planning Worksheet Activity was helpful.	0	1	0	14	13	4.39
The questions I had about the pilot were answered.	0	0	3	12	14	4.38
The materials provided were helpful.	0	0	0	9	20	4.69
The facility worked well for this meeting.	0	1	1	5	22	4.66

Three things I liked best about this experience…	• ProFile walkthrough • Examples • Time to work on API's for my specific students • Presenter explained things and was knowledgeable. • Lunch was great • Materials. • Presenter did great. I wasn't so confused as I was from MAP-A last year. This year training for MAP–A has been good. • Questions were answered helped me understand what they were looking for, and materials area a great self help. • Didn't go page by page in manual • Lots of examples were gone over • Sat with same grade level] • Clear and concise information • Help and input from fellow teachers. • All the resources! • Nice accommodations • Grouped by grade level • Food was much better at this location than in the past • Gaining more insight into the science pilot • The communication of the staff/materials • Possibly because I had done this before it was easier to understand • Well organized and flowed smoothly so that time was not wasted. • Chocolate • Facilitators with knowledge • Ways contact help • Working with a partner • Time to collaborate knowledge staff (Susan, Lisa) • Speed of training, good speaking voice • Information presented in good manner • Writing a sample activity
Three things I would change about this experience….	• Lunch (buffet style) • Maybe a microphone. I'm not for sure everyone heard everything. • I couldn't see the info when you had the web site on the screen • Worked well maybe have a training for those who have never done MAP-A separately for computer program basics of process • Ask teacher who can't bring a science teacher to bring information about what curriculum will be covered

	during the collection period
Questions I still have…	• The only question I still have is….we have to click yes on the ye and no each time eve though we done submit student tangible work? Is this on the science MAP-A only? • Still somewhat overwhelming • Using ProFile

MAP-A
Science Pilot Training St. Louis
December 11 -14, 2006

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Average
Overall the training worked well.	0	0	0	15	15	4.50
The overview and manual walk through were helpful.	0	0	0	10	20	4.67
Applying the Step-by Step procedures to a student sample helped me understand the new MAP-A process.	0	0	0	14	17	4.55
The Writing Activity was helpful.	0	1	2	15	14	4.31
The Planning Worksheet Activity was helpful.	0	0	1	10	20	4.61
The questions I had about the pilot were answered.	0	0	2	10	19	4.55
The materials provided were helpful.	0	0	0	10	21	4.68
The facility worked well for this meeting.	0	0	1	8	22	4.68

Three things I liked best about this experience…	• Very clear explanation • Knowledgeable presenters • Color coding and organization of materials • Workshop was very practical. • Working with other teachers • Having questions answered receiving resources • Working with groups who had our aged kids • Working with other teachers from other schools that materials the instruction al leaders were very informative. • This is easier than math • More obtainable then I expected. • Having questions answered professionally • Being given contact information • The professionalism exhibited. • The presenters presented in as effective precise manner at a good pace. • The presented was very knowledgeable about the context. • The interactive activity was a good learning experience. • The drive with Sheila • Visiting with Susan and Lisa • Listening to the teachers. • Meeting others. • Seeing API's for science, getting ideas from others. • More info. • Stress on application • Knowledgeable instructors • Clarification of application • Working with teams of professionals of same grade. • The extent to which thing were explained. • The good step by step examples. • Planning worksheet • Application explanation • Talking about Map A process with other teachers. • Divided by grade level; PowerPoint paper copy • The best thing was being able to network with other professionals. • Going into ProFile to practice • Good clear instruction and use of technology. • Organization, place, writing activity

	• Planning, working with other 8th grade teachers • Facility • Good location • Informative • Green sheets • Interactions with peers • CD for input • Examples of applications • The presenters were very helpful! • Materials • The food was excellent. • Color coded • Seen others from out student populations • No manuals
Three things I would change about this experience….	• Possibly more group processing (pair/share) to check for understanding. • Better coffee for Sheila • Later start time for the drive ins • More colored sheets of paper • Have at a facility with computers. • Not so much sitting. • Bring an additional person from my school. • I think the manual could use some color coding for certain top pages even using post it tabs the flipping back and forth can be tedious and confusing. • Laptops available to use • Go closer to home • More trainings • Change scoring times • Two lines at lunch • No interactive work with peers; students are too different • More examples • Need more bathrooms • Have more trainings • More examples • Fill out with teachers • Have follow up before they are due.
Questions I still have…	• I really need to get started, I'm sure I will have questions. • On going….how best to find the time. • Acquisition and application are still confusing.

	• I'm sure they will come up but you have given me tools to find them out. • I'll be in touch if I have any.

Missouri Assessment Program-Alternate, Science Pilot
Teacher Survey

The Missouri Department of Elementary and Secondary Education, Measured Progress, and the Assessment Resource Center wish to thank you for your participation in the MAP-A Science Pilot and for taking the time to complete the following survey. This survey is instrumental for teacher input and feedback regarding the MAP-A Science Pilot. Information gathered through this survey will be helpful in determining any changes that may be necessary before full implementation of this process in the 2007-2008 school year.

If you have any questions regarding this survey, please contact Susan Izard at Measured Progress either through email (sizard@measuredprogress.org) or by phone (1-800-431-8901).

PART 1 Background Information

1. How many years have you taught students with significant cognitive disabilities?

   1-5 - **6** 6-10 - **4** 11-15 - **4** 16-20 - **2** 21+ - **4**

2. How many years of experience do you have with the MAP-A?

   1 - **3** 2 - **5** 3 - **4** 4 - **2** 5+ - **6**

3. Where do you currently teach?

   Public School - **20** State-operated School Other _____

4. What is the grade level(s) of the student(s) to whom you administered the MAP-A Science Pilot?

   Elementary (5) - **13** Intermediate (8) - **5** High School (11) - **2**

5. In what kind of community do you teach?

   Rural - **6** Urban - **1** Suburban - **13**

6. How many students completed the MAP-A Science Pilot?

   1 - **17** 2 - **3**

7. Approximately how much time outside of your school day did you use assembling the MAP-A Science Pilot?

   0-5 hours - **11** 6-10 hours - **5** 11-15 hours - **1** 16-20 hours - **3**

   More than 20 hours - **0**

PART 2 Pilot Information (Rate each of the following statements. In the comment section provided after each statement please give specific feedback.)

TRAINING

1. The training prepared me for completing the MAP-A Science Pilot.

Strongly Disagree	Disagree	Agree	Strongly Agree
0	**2**	**12**	**6**

What worked?

- The specific examples, and the discussion of what to consider.
- I found this to be pretty straight forward after having done math/reading.
- Knowing how to read and interpret strands how to make it "applicable".
- Getting together with other teachers and coming up with activities.
- Although we do Science activities in my classroom we don't have a specific time set aside for that. At first I wasn't sure anything I was doing was correct after having others look at it, I felt much better.
- Group discussions.
- Practice.
- Loved the computer program.
- The examples and the time to work on planning for the students we would be testing with the trainers there to help us.
- API's gave a good scope and sequence base.
- Ideas to mix the two API's together.
- Having time to write out assessment activities with a group where we could brainstorm.
- Going over the API's and suggestions being given to use for the API's.

What did not work?

- Completing it during the testing window.
- Not sure – thought I got it, but just peeked at my pilot submission and got a NS. Confusion…
- Not having "reference"/example MAP-A's.
- Too vague and hard to understand.
- It was difficult to match a process standard to the content standard.

What would you change?

- Need more specific examples of what's acceptable as matching API's.
- Give a scoring training in conjunction with training.
- More examples of what's right.
- More practice needed.
- The order of the standards. I would put the content standard first and the process standard second.
- Difficulty connecting API's – Teach staff to obtain content strand – then match to process strand – this may increase staff's ability to connect API's and reduce NS.
- Given suggestions about how to implement 2 separate strands at the same time.
- More samples on showing application.
- Give numerous examples of matching API's to process standards.

2. The training materials were useful once I began work on the MAP-A Science Pilot.

Strongly Disagree	Disagree	Agree	Strongly Agree
0	**0**	**12**	**8**

What worked?

- It gave me something to look back at and help this old mind remember the topics we talked about.
- They were exactly the same easy to follow.
- I was able to go back and check to see if I was on track.

What did not work?

- Making the connection of activities to the standards was challenging.

What would you change?

- More examples.
- There needs to be more training on connecting API's to standards and application.

3. The manual was helpful to me as I assembled the MAP-A Science Pilot.

Strongly Disagree	Disagree	Agree	Strongly Agree
0	**1**	**11**	**7**

What worked?

- I don't remember.
- Didn't need it too much.
- Step by Step.
- Using ProFile was a big help – It wouldn't let you picks API's that didn't go together.
- Exact order.
- Showed me how to assemble.

What did not work?

What would you change?

- Need more examples to refer to @ each grade level.
- Move beginner friendly to new MAP-A admin.

4. The sample entries provided in Chapter 3 and Appendix C were helpful.	Strongly Disagree	Disagree	Agree	Strongly Agree
	0	**0**	**14**	**6**

What worked?

- I don't remember.
- Helped to get ideas of right/wrong.
- Seeing how to correlate and make it application.
- Samples – Great.
- Gave me ideas!

What did not work?

- More examples.

What would you change?

- Need more.
- Give more.
- More examples – phrases to assist in application and accuracy/independence levels.
- Need more differences between acquisitions and applications.

PROFILE Did you use ProFile? YES - 13 NO - 7

(If no, proceed to question 8)

5. The directions provided with ProFile were easy to follow.	Strongly Disagree	Disagree	Agree	Strongly Agree
	0	**0**	**6**	**13**

What worked?

- I had no problems.
- It seems like the bugs from earlier LA and Mat have been worked out.
- Made it hard to mess up – liked the drop down box.
- Using ProFile was easy! I don't understand why someone wouldn't use it. I like that it checks off what's been done and that it wouldn't let you pick API's you can't use.
- ProFile was great.

What did not work?

- Not always user friendly at times.

What would you change?

- Easier movement from computer to computer.

6. ProFile was easy to use.	Strongly Disagree	Disagree	Agree	Strongly Agree
	0	**1**	**3**	**15**

What worked?

- I had no problems.
- Drop down boxes.
- Loved ProFile.
- The fact that it does not let you make a mistake on the strands.
- ProFile makes this process so much easier.

What did not work?

- Not always user friendly at times.
- I had problems when I had entered dates and score but the content sheet did not mark.
- It was confusing to me when I clicked on the first one and then moved to the second strands. I had difficulty with being consistent when entering the program and recording information.

What would you change?

- Have it print page numbers.

7. ProFile made printing the required forms simple.	Strongly Disagree	Disagree	Agree	Strongly Agree
	0	**0**	**2**	**17**

What worked?

- I had no problems.
- The “print all” button was a big help keeping papers organized this year.
- No problems with printer reading program.
- It showed you exactly what you needed. Print all button was good.
- Everything in one place.

What did not work?

What would you change?

OTHER

8. E-mails and phone calls were returned and/or responded to promptly by…

	Strongly Disagree	Disagree	Agree	Strongly Agree
DESE	**0**	**0**	**1**	**5**
ARC	**0**	**0**	**2**	**7**
MEASURED PROGRESS	**0**	**0**	**2**	**5**

Comments:

- I did not call either DESE or Measured Progress.
- I only needed to call Measured Progress for a ProFile problem and they called me right back and fixed the problem.
- Lisa and Becky always got right back to me when I emailed them.
- I never emailed or called anyone.
- Didn't have to use this.
- We tried to contact ARC about a question and were not able to reach anyone.

9. Questions I had were answered clearly by…

	Strongly Disagree	Disagree	Agree	Strongly Agree
DESE	**0**	**0**	**4**	**1**
ARC	**0**	**0**	**4**	**4**
MEASURED PROGRESS	**0**	**0**	**4**	**1**

Comments (What types of questions did you have?):

- What ways to complete MAP-A & how to mail back.
- Didn't have any experience with this.

10. I preferred the plastic case for pilot materials over a binder.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	**0**	**3**	**14**

What worked?

- It was easier to handle, and carry around.
- Smaller and can be re-used multiple years.
- Binders took up a lot of space in the classroom and required the additional step of going to the office to use the 3 hole punch.
- Ease of use, need of space.
- Takes up less space.
- I liked the binder because it took up less space and it was able to hold all the required materials.
- Slender and workable.
- The plastic case was easier to handle, did not require punching.
- It was small.
- Much easier to manage.
- Thinner – can be reused.

What did not work?

- I wonder if grades lose or mix up papers if they're not stapled at least.
- I forgot to put them into the plastic cases.
- If I had my math and comm. Arts be too much to keep in order.

What would you change?

- I think binders make it easier to look through and organize.

11. The return materials were easy to use.

Strongly Disagree	Disagree	Agree	Strongly Agree
0	**0**	**5**	**15**

What worked?

- Very easy.
- Too the point.
- The postage paid packet was very easy to use.

What did not work?

- Having to pay for pick –up (we didn't but that is what they tried to tell us).

What would you change?

ASSESSMENT DESIGN

12. The Alternate Performance Indicators were easy to understand.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	**3**	**8**	**8**

What worked?

- Similar to others.
- Most all verbs and explanations worked.

What did not work?

- Not being a science major, makes understanding some of the API's more difficult.
- Some need clarification i.e. the computer is not a measurement tool.
- Like I said earlier, apparently I missed something if mine was NC because API didn't match activity because I felt confident it did.
- While grading/scoring, teachers need to clarify how a child "explored" etc.
- I think that many people didn't look at the big idea of the API's they chose.
- They are very broad – not specific enough.

What would you change?

- Questions we had as scorers that need to be addressed in training?
    1. Is looking on the internet or a website measuring temperature?
    2. Is looking at pictures of animals "exploring objects in nature?"
    3. Is feeding a pet frog "explaining the environment?"
- Training on teachers clarifying how a child explored.
- In training, perhaps that could be stressed more.
- Suggestions or definitions of each.
- Example to clarify a little more.
- Some need to be clarified in training with teachers ie…cannot use internet to measure temperature, exploring objects in nature.
- More details – possibly more specific examples after statement.

13. I was able to pair process and content Alternate Performance Indicators in ways that made sense.

Strongly Disagree	Disagree	Agree	Strongly Agree
0	**1**	**13**	**6**

What worked?

- It was fairly easy.
- I believed it made it easier to make it an application activity.
- I was able to do this but at times it was difficult because I wanted to use them again.
- Working backwards by choosing the content standard and then finding a process standard to work with it.
- The “asking questions” API was easy to pair.

What did not work?

- Some took longer, the first set was easy.
- I kept second guessing and questioning. It took a lot of time to mix and match.
- Sometimes matching was hard.
- Difficult to match with activities the kids can do.
- The other set “impact of Science”.
- It was some what difficult to connect the IS standard.

What would you change?

- The order of process standards and content standards on ProFile and in the manual.

14. The amount of information required as evidence of student performance on the 4 required strands for the MAP-A Science Pilot was manageable.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	**3**	**11**	**3**

What worked?

- It wasn’t overwhelming.

What did not work?

- Again the “IS” made it difficult to get correct data.
- I like the way it is organized much better than the way CA and Math is done

What would you change?

15. I was able to develop science activities that made sense for both the content and process APIs.

Strongly Disagree	Disagree	Agree	Strongly Agree
2	**5**	**9**	**3**

What worked?

- Process API's were ok.
- Making them applicable.
- Many things we were already doing went right along – weather, measurement, etc. I hadn't thought of them as science though.
- At 8th level, not enough choices. Etc.

What did not work?

- Some were harder than others.
- For 8th grade, it was hard to create FM and PP activities that were appropriate for an MR student.
- Trying to keep it functional.
- Difficult.
- The Impact of science paired with an alternate API.
- I struggled somewhat with the IS Strand.
- It was difficult considering the how sever the students disability was. It did force me to think of activities that were appropriate for my students.

What would you change?

- Are there any other content API's from the middle school to choose from?
- I think many people probably feel they are not addressing science but actually they are. I don't know that there is anything to change but just give examples.
- More training.
- Develop instruction for MAP-A Science.
- Provide science activities – ideas that match API's.

16. The MAP-A Science Pilot provided an accurate assessment of the student's abilities and/or performance.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	**2**	**3**	**4**

What worked?

- I loved having a science teacher as a team leader.
- Flexibility in tasks.
- This test provides an assessment for the MAP-A teacher not the student.

What did not work?

- Not necessarily. It might for the activities listed, but does not show in an accurate assessment of students abilities?
- Any teacher will tell you that MAP-A's provide an assessment of the teacher's ability to complete the parameters of the MAP-A correctly. I also question the graders abilities.

What would you change?

- I feel it graded the teacher's paperwork skills more than student ability.

17. Additional Comments

What worked?

- Pilot Science was at a different time than the LA & Math, decreasing the time crush a little.

What did not work?

- In KC, general MAP-A training closed out before everyone who needed/wanted it could sign up. Every teacher needs the opportunity to be trained.
- Mostly grading the teacher on his/her picks.

What would you change?

- If it is at all possible for this to be done before or after the other two assessments. It is a ton of work for teachers who have a large number of MAP-A's.
- Need more specific examples/training.
- Need more opportunities for training.
- More training on API's data collection, connecting to standards.
- Take out blind scores.
- Saw another scorer looking off and changing her answers.

Other:

- This was my first MAP-A and it was not what I had expected. ProFile was user friendly and made my job much easier.
- It is hard to do all 3 subjects at the same time.
- For names on the test either have it be first then last or last then first.

MAP-A 2007 Science Pilot Scoring
June 5-7, 2007
Scorer Feedback

1. **Do you have comments or suggestions regarding the science portion of the MAP-A?**
   - It was user friendly. This was my first experience with MAP-A but heard it was much better than former MAP-A's.
   - More training on connecting API's.
   - Content training.
   - Some of the API's are vague.
   - I like the way is was organized grouping strands together.
   - Teachers need to make sure they pay attention to the terms used in the indicators to be accurate in activities.
   - Teachers may benefit from more examples combining the 2.
   - 8th grade was difficult to combine.
   - The main difficulty appeared to be connecting API's .
   - Also noted difficulty in abstaining application.
   - Make sure everyone must attend training.
   - Encourage use o ProFile by all means necessary
   - Make sure that all teachers attend training!
   - All teachers will need to be trained*. Teachers will need to work with a science teacher to help understand the concepts
   - *Not "train the trainer"
   - Schedule enough trainings so no gets closed out.
   - All teachers should attend training.
   - Create a data base of activities and what API's it could assess.

2. **Do you have comments or suggestion regarding science content training, MAP-A science assessment training, or other related training-including training materials-for teachers?**
   - More examples of good MAP-A projects.
   - The training was a little confusing but once I got started it wasn't as bad as I anticipated .
   - Have content API an process API switch places so teachers look at the content first. It will help teachers have API apply.
   - Many teachers used tools such as the internet for inquiry instead of tools such as thermometers. Teachers need to be trained on science materials.
   - Examples of activities (what is science and what is not for example sorting silverware).
   - Is there anyway that you can run workshops to "mock score?" Learning to score helps me so much more .
   - Need more training in how the API's can connect with each other.
   - More training in how what we are accessing relates to the API's.
   - The plastic folders were much nicer than the binders easier to keep track of materials.
   - The training sessions allowing for brainstorming and collaboration were extremely helpful.
   - Need more variety of grade level samples.
   - How to pair IS with other API required.
   - Difference between grading for accuracy and independence.
   - If RPDC is going to train teachers make sure they have training from the state, not their peers. I have found that misinformation is being given during training.
   - Staff should be taught to obtain content strand then match to process strand.

- Difficulty in application maybe eliminated by listing application ideas/phrases as examples.
- Give plenty of opportunities for teachers collaborate on their ideas for activities. This gives them a chance to learn and check their ideas for matching API's and verify application.
- Let teachers know to simplify – not reinvent the wheel!
- Give examples of correct MAP-A's stress during training to look at the big idea for API's and how individual API relates to it.
- Emphasize how to make the strands show application.
- Acquisition vs. application – how it was talked about today and yesterday.
- I think teachers need to know the difference between a task specific prompt and a non specific prompt and be (training) encouraged to use that vocabulary. I also think that it needs to stress teachers that the activities must connect to both the content and process standard.
- Internet is not a measuring tool
- Show examples of wood specific scoring like 1 pt, 1 pt = 2 100%
- Give us many examples at all levels.
- Go over: Internet not a tool to measure temp. What exactly is expected on "explore" nature? Is looking at pictures enough, or do you have to look at the actual object/animal?
- Teachers need to know:
    - Internet is not a tool to measure temperature
    - Clarify "explore objects in nature"
- Remind (stress) to the teachers to refer to the "big Idea" and glossery. This may help them design the task.

3. Do you have hints or tips for teachers regarding science instruction or assessment? Do you have suggestions for science activities for MAP-A students?

- Teachers: Don't make it harder than it is!
- Relax.
- Get together with others giving MAP-A to collaborate.
- Make sure you API's connect!
- Use ProFile Check to make sure both API's are covered.
- Go to the content training and MAP-A training.
- Provide some very basic concepts and provide some activities to coincide with the API's.
- Working with general education science teachers may be helpful in designing activities that connect to the API's.
- Use the science assessment and spawn off in to activities for CA and Math based on the science activity. Ex. Sink or float experiment – Sci; chart data – math; write about it – CA.
- QC before turning it in.
- Make application a part of your instruction all the time.
- Realize this test can actually be scored low because of teacher failure, not student.
- Also keep it simple! Some went way over what was needed!
- I would say that many teachers don't feel that they are doing science but when they look closely they see they are…weather, (calendar), measurement, etc.
- Keep it simple.
- It is beneficial to do large group experimental activities. That way it becomes application and you are collecting data for a group of children instead of having to do them on at a time.
- Do not include the prompt in any way in accuracy.
- Clarify prompt – content specific prompt.
- Clarify independence + no help

- Clarify activity must be within a science experiment – e.g. sorting cutlery: is that science?
- Have to do both API's in same student work record not one on one and one on the other.
- Prompts effect only independence not accuracy.
- I have seen several science task description in this Pilot that would easily lend it self to CA & MA assessment as well.

4. Do you have comments or suggestion related to the pilot scoring process?

- Excellent.
- It was a great experience.
- Much smoother process that I thought it would be.
- After the first scorer has finished scoring, place those papers in a manner such that the second scorer is unable to see.
- Going through the scoring process has allowed me to see things I could do or things I could do differently in my class.
- It helped me to understand how to better give the test.
- Scores need to be removed each time.
- I saw a scorer changing her score compare to another.
- I really enjoyed the process, the accommodations were wonderful.

MAP-A
Train-the-Trainer Workshop
September 5th, 2007

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. Overall the training worked well. **Comment:**	1	2	3	4 7/20 = **35%**	5 13/20 = **65%**
2. The **Overview and Manual Walk Through** were helpful. **Comment:**	1	2	3	4 5/20 = **25%**	5 15/20 = **75%**
3. The addition of the **Justification Form** and **Individual Student History Report** for duplicate APIs was clearly explained. **Comment:**	1	2	3	4 4/20 = **20%**	5 16/20 = **80%**
4. Applying the **Step-by Step** procedures to student **Sample Entries** helped me understand the MAP-A process. **Comment:**	1	2	3	4 7/20 = **35%**	5 13/20 = **65%**
5. The student **Sample Entries** were helpful. **Comment:**	1	2	3 2/20 = **10%**	4 4/20 = **20%**	5 14/20 = **70%**
6. The **Science Sample Entries** helped me understand how to connect Process and Content Strands to Science Activities. **Comment:**	1	2 1/20 = **5%**	3 3/20 = **15%**	4 3/20 = **15%**	5 13/20 = **65%**
7. The **Lessons Learned** portion was helpful. **Comment:**	1	2	3	4 5/20 = **25%**	5 15/20 = **75%**

8. The **Process Information** was helpful. **Comment:**	1	2	3 1/20 = **5%**	4 8/20 = **40%**	5 11/20 = **55%**
9. The questions I had about the MAP-A were answered. **Comment:**	1	2	3 2/20 = **10%**	4 8/20 = **40%**	5 10/20 = **50%**
10. The materials provided were helpful. **Comment:**	1	2	3	4 3/20 = **15%**	5 17/20 = **85%**
11. Three things that worked well in this experience…	• Hands on, Flawed activities/Samples (14) • Discussions, Q & A (4) • Planning Worksheet Activity (4) – would like to revise for use with Math and Com Arts • Poster (from Diana Humphrey) • Group Work (4) • The opportunity to allow the group to ask questions as we went through the training. • The pace of the training (2) • Thanks for listening and answering questions. • Clear manual and power point (2) • LOVED the improvements to the manual, especially the flawed/corrected examples (4) • Food, treats, refreshments (2) • Professional materials – easy to read and understand (2) • Manual walk through (4) • Writing an actual Science activity (3) • Power Point with page numbers easy to follow! • New Forms • NEW APIs • The Glossaries • Doing the Student Work Record • ProFile Review & Updates (2) • Good information on “Big Idea” • Very well organized presentation. • “This was the first meeting (training) that I’ve attended where the assistant commissioner of Education attended. I really appreciate Heidi’s attendance and her willingness to seek input on the MAP-A process from us.” • Extra Handouts				

12. Three things that did not work well in this experience… 12. Three things that did not work well in this experience…**(CONTINUED)**	• How much that needs to be covered that is new – compared to amount of time we have in a single day's presentation…and we have experience! • As Stephanie observed – working on the Planning Worksheet was difficult before seeing the samples. • More good examples. Eliminate bad ones except a couple. • Doing Science Activity without the manual. • Send reminder sooner to bring a binder. • Need good examples. • I like using good examples before bad ones. • Lack of really good examples (participant wrote this 3x) • Need examples at lower levels of ability (2) • Not enough activity samples. • Many side conversations made it difficult to focus on training materials. • Needed more information before first activity and reporting on "Andi" became confusing as it was discussed. • Continues to be a complex, cumbersome process that doesn't match essential skills curriculum. • "This was not your fault (Stephanie's) but I get tired of people who just want to complain. I know is it cathartic to get concerns off out chest, but 2-3 people wasted quite a bit of time on matters that cannon be changed." • Had to go through manual page by page to get idea of where information is in manual – necessary information but maybe do as an activity to locate. • DESE folks got a little defensive – too bad because they are not responsible for our anxiety. • We still seem to be flipping back and forth in the manual.
13. Questions I still have…(or other comments)	• Time will tell! – I'm not sure at the moment. • Not any now, but I may later as I reflect. • Streamline the process. • I always ask all my questions, and you all always answer them all! You all are awesome! • Ways to make ProFile easier for teachers to download. • Why not provide clear, concrete, accurate examples for districts to use (refer to) to write (develop) individual MAP-A activities???

	• How does MAP-A actually assess student skills for those students who have severe disabilities as oppose to assessing the teacher's ability to gather information? • Very good training overall – Thanks so much! (2) • Just hope I can do a good job when I do training.

Appendix C: Forms

This appendix describes and presents samples of the forms required in a completed MAP-A. The forms are described and outlined in Table 1. Data collection and submission requirements are outlined in Tables 2 – 5.

Table 1. MAP-A Forms

Content	Description
Table of Contents Checklist	Acts as a guide for organization of the completed MAP-A.
Validation Form	Provides documentation of the individuals who have reviewed and/or contributed to the MAP-A. Allows for optional brief reporting of extended absences and/or student's communication mode. The principal, assistant principal or special education director must sign this form prior to submission of the MAP-A.
Entry/Data Summary Sheets	Serves as a record of student performance on each API assessed. The student's score for Level of Accuracy and Level of Independence for each API will be determined based on the percentages recorded on the Entry/Data Summary Sheet.
API Duplication/Justification Form	Supplies specific content-based evidence to support the justification/rationale for duplicate use of the API.
Student Work Records	Provides documentation of student work for each API assessed in both collection periods. Student Work Records should demonstrate the **application** of the API in a standards-based activity. You may show evidence of student work by • collecting student work samples such as worksheets, drawings, writings, journal entries, or projects; or • observing the student and recording his or her performance.

Table 2. Minimum Page Requirements for MAP-A Submissions at Each Grade Level

Grade Level	Mathematics	Communication Arts	Science	Min. Total of Pages
Elementary, Grades 3 & 4	12	12	---	26
Elementary, Grade 5	12	12	12	36
Middle School, Grades 6 & 7	12	12	---	26
Middle School, Grade 8	12	12	12	36
High School, Grade 10	12	---	---	14
High School, Grade 11	---	12	12	24

Table 3. Mathematics MAP-A Data Collection and Submission Requirements						
Strand	**API**	**Collection Period**	**Data Collection Required**	**Forms Required**		**Min. Total of Pages**
Strand 1	API 1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	12
		2	3 data points			
	API 2	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
Strand 2	API 1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
	API 2	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			

Table 4: Communication Arts MAP-A Data Collection and Submission Requirements						
Strand	**API**	**Collection Period**	**Data Collection Required**	**Forms Required**		**Min. Total of Pages**
Strand 1	API 1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	12
		2	3 data points			
	API 2	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
Strand 2	API 1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
	API 2	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			

Table 5: Science MAP-A Data Collection and Submission Requirements						
Strand	**API**	**Collection Period**	**Data Collection Required**	**Forms Required**		**Min. Total of Pages**
Strand 1	API 1	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	12
		2	3 data points			
Strand 2	API 2	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
Strand 3	API 3	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			
Strand 4	API 4	1	3 data points	1 Entry/Data Summary Sheet	2 Student Work Records	
		2	3 data points			

Table 6: Requirements for Proper MAP-A Documentation			
	Mathematics	**Communication Arts**	**Science**
Grades Tested	**3-8, 10**	**3-8, 11**	**5, 8, 11**
# of Strands required per content area	2	2	4
# of APIs required per Strand	2	2	1
# of Entries Required	4	4	4
Minimum pages per content area	**12**	**12**	**12**

The following forms are required for the MAP-A.

1. Table of Contents Checklists
    - Grades 3, 4
    - Grade 5
    - Grades 6, 7
    - Grade 8
    - Grade 10
    - Grade 11
2. Validation Form
3. Entry/Data Summary Sheet
4. API Duplication/Justification Form
5. Student Work Record

The MAP-A requires content area strands specific to grade span. Correct strands must be recorded on the Entry/Data Summary Sheets for each student.

Content Area	Title of Strand	Grades
Mathematics	**Strand 1**: Numbers and Operations (**NO**)	All Grades
	Strand 2: Algebraic Relationships and/or Geometric and Spatial Relationships (**AR/GS**)	Grades 3–5
	Strand 2: Data and Probability (**DP**)	Grades 6–8
	Strand 2: Measurement (**ME**)	Grade 10
Communication Arts	**Strand 1:** Reading (**RD** and/or **RP**)	All Grades
	Strand 2: Writing (**WC**)	Grades 3–5
	Strand 2: Writing (**WP**)	Grades 6–8, 11

Content Area	Grade Focus	Title of Strand
Science	Required for Elementary School Grade 5	Strand 5: Processes and Interactions of Earth's Systems **(ES)**
		Strand 6: Composition and Structure of the Universe and the Motion of the Objects within it **(UN)**
		Strand 7: Scientific Inquiry **(IN)** **or** Strand 8: Impact of Science, Technology, and Human Activity **(ST)**
		Strand 3: Characteristics and Interactions of Living Organisms **(LO)** **or** Strand 4: Changes in Ecosystems and Interactions of Organisms with Their Environment **(EC)**
	Required for Middle School Grade 8	Strand 1: Properties and Principles of Matter and Energy **(ME)**
		Strand 2: Properties and Principles of Force and Motion **(FM)**
		Strand 7: Scientific Inquiry **(IN)** **or** Strand 8: Impact of Science, Technology, and Human Activity **(ST)**
		Strand 5: Processes and Interactions of the Earth's Systems **(ES)** **or** Strand 6: Composition and Structure of the Universe and the Motion of the Objects within it **(UN)**
	Required for High School Grade 11	Strand 3: Characteristics and Interactions of Living Organisms **(LO)**
		Strand 4: Changes in Ecosystems and Interactions of Organisms with their Environment **(EC)**
		Strand 7: Scientific Inquiry **(IN)** **or** Strand 8: Impact of Science, Technology, and Human Activity **(ST)**
		Strand 1: Properties and Principles of Matter and Energy **(ME)** **or** Strand 2: Properties and Principles of Force and Motion **(FM)**

Table of Contents Checklist

Elementary

Student:	School Year:	Grade: 3 4

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

Elementary

Student:	School Year:	Grade: 5

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

Elementary

Student:	School Year:	Grade: 5

(Organize MAP-A in the following manner)

Science Strand 5: Processes and Interactions of the Earth's Systems (ES)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 6: Composition and Structure of the Universe and the Motion of the Objects within It (UN)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 7: Scientific Inquiry (IN) or **Science Strand 8: Impacts of Science, Technology, and Human Activity (ST)**
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 3: Characteristics and Interactions of Living Organisms (LO) or **Science Strand 4: Changes in Ecosystems and Interactions of Organisms with Their Environments (EC)**
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

Middle School

Student:	School Year:	Grade: 6 7

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Data & Probability (DP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Data & Probability (DP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

Middle School

Student:	School Year:	Grade: 8

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Data & Probability (DP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Data & Probability (DP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

Middle School

Student:	School Year:	Grade: 8

(Organize MAP-A in the following manner)

Science Strand 1: Properties and Principals of Matter and Energy (ME)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 2: Properties and Principals of Force and Motion (FM)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 7: Scientific Inquiry (IN) or
Science Strand 8: Impacts of Science, Technology, and Human Activity (ST)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 5: Processes and Interactions of the Earth's Systems (ES) or
Science Strand 6: Composition and Structure of the Universe and the Motion of the Objects within It (UN)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

High School

Student:	School Year:	Grade: 10

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Measurement (ME)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Measurement (ME)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Table of Contents Checklist

High School

Student:	School Year:	Grade: 11

(Organize MAP-A in the following manner)

- ☐ Table of Contents Checklist
- ☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WP)
Alternate Performance Indicator #1
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WP)
Alternate Performance Indicator #2
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 3: Characteristics and Interactions of Living Organisms (LO)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 4: Changes in Ecosystems and Interactions of Organisms with Their Environments (EC)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 1: Properties and Principals of Matter and Energy (ME) or
Science Strand 2: Properties and Principals of Force and Motion (FM)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Science Strand 7: Scientific Inquiry (IN) or
Science Strand 8: Impacts of Science, Technology, and Human Activity (ST)
- ☐ Entry/Data Summary Sheet
- ☐ Collection Period 1 Student Work Record
- ☐ Collection Period 2 Student Work Record

Validation Form

Student:_____ Grade:_____

District & School of Attendance:_____

This form provides documentation of the individuals who administered, contributed to and/or reviewed this MAP-A.

Individual responsible for MAP-A administration
(typically the student's classroom teacher):
Name:_____
Position: _____

Individuals who contributed to this MAP-A:
Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

OPTIONAL- Use this space to provide information regarding the student's mode of communication.

Please obtain administrator's (principal, assistant principal, or special education director) signature prior to submission.

_____
Signature Date

_____
Print Name

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name:		**Grade:**
Strand:	**Big Idea:**	**Concept:**
API:		
Has this student been assessed on this API in previous years? **Yes** □ **No** □		

	Collection Period 1 January 6 – January 31			**Collection Period 2 February 3 – February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date						
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %						
Independence %						
Average % for Collection Period	Accuracy:			Accuracy:		
	Independence:			Independence:		

	API Entry Average
Level of Accuracy	
Level of Independence	

API Duplication Justification Form
Mathematics/Communication Arts

Student Name:		**Grade:**
Strand:	**Big Idea:**	**Concept:**
API:		
You indicated that this student has been assessed on this API in previous years. **The instructional decision to duplicate an API from a prior year's MAP-A assessment must be justified on this form. The justification must be included with the MAP-A submission.**		
Justification/Rationale: (Supply specific justification for duplicate use of the API.)		
Plan of Student Progress: (Supply specific plans in place to assure student growth across API's content.)		

Student Work Record
Mathematics/Communication Arts/Science

Attach student work sample if appropriate.

<table>
<tr><td colspan="2">Student Name:</td><td>Grade:</td><td>Date:</td></tr>
<tr><td>Strand:</td><td colspan="2">Big Idea:</td><td>Concept:</td></tr>
<tr><td colspan="4">API:</td></tr>
<tr><td colspan="4">Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)</td></tr>
<tr><td colspan="4">Evaluation of Student’s Performance:</td></tr>
<tr><td colspan="2">Describe and evaluate the student’s actual accuracy performance. Describe how the percentages were determined for Level of Accuracy.</td><td colspan="2">Describe and evaluate the student’s actual independence performance. Describe how the percentages were determined for Level of Independence.</td></tr>
<tr><td colspan="2">Level of Accuracy _____%</td><td colspan="2">Level of Independence _____%</td></tr>
</table>

Include student work sample here, if appropriate.

Submit student work sample on 8 ½ X 11 paper.

This page is a placeholder. **Do not** tape, staple, or otherwise attach student work to this page.

Do not submit photos.

Appendix D: MAP-A Achievement Level Descriptors and Cut Scores

Achievement Level Descriptors

Grades 3-5	Mathematics
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Algebraic Relationships and/or Geometric and Spatial Relationships. Student work may be loosely connected to the strands. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Basic	Student has a fundamental understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Algebraic Relationships and/or Geometric and Spatial Relationships. Student work may be somewhat connected to the strands. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Proficient	Student has a sound understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Algebraic Relationships and/or Geometric and Spatial Relationships. Student work may be connected to the strands and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a strong understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Algebraic Relationships and/or Geometric and Spatial Relationships. Student work may be closely connected to the strands and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grades 6-8	Mathematics
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be loosely connected to the strands. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Basic	Student has a fundamental understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be somewhat connected to the strands. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Proficient	Student has a sound understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be connected to the strands and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a strong understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be closely connected to the strands and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grade 10	Mathematics
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Measurement. Student work may be loosely connected to the strands. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Basic	Student has a fundamental understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Measurement. Student work may be somewhat connected to the strands. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Proficient	Student has a sound understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Measurement. Student work may be connected to the strands and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a strong understanding of the concepts contained in the grade appropriate APIs within the strands of Numbers and Operations and Measurement. Student work may be closely connected to the strands and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grades 3-5	Communication Arts
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade appropriate APIs within the standards of the Reading Development and Processes and Standard English Conventions. Student work may be loosely connected to the standards. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Basic	Student has a limited understanding of the concepts contained in the grade appropriate APIs within the standards of the Reading Development and Processes and Standard English Conventions. Student work may be somewhat connected to the standards. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Proficient	Student has some understanding of the concepts contained in the grade appropriate APIs within the standards of the Reading Development and Processes and Standard English Conventions. Student work may be connected to the standards and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a high level of understanding of the concepts contained in the grade appropriate APIs within the standards of the Reading Development and Processes and Standard English Conventions. Student work may be closely connected to the standards and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grades 6-8	Communication Arts
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be loosely connected to the standards. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Basic	Student has a limited understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be somewhat connected to the standards. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Proficient	Student has some understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be connected to the standards and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a high level of understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be closely connected to the standards and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grade 11	Communication Arts
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be loosely connected to the standards. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Basic	Student has a limited understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be somewhat connected to the standards. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
Proficient	Student has some understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be connected to the standards and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a high level of understanding of the concepts contained in the grade appropriate APIs within the standards of Reading and Writing Development and Processes. Student work may be closely connected to the standards and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grade 5	Science
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade-appropriate APIs within the strands of: Processes and Interactions of the Earth's Systems, Composition and Structure of the Universe and the Motion of the Objects within it, Characteristics and Interactions of Living Organisms, or Changes in Ecosystems and Interactions of Organisms with Their Environment, and Scientific Inquiry or Impact of Science, Technology and Human Activity. Student work evidence may be weakly connected to the strands and/or demonstrates limited application to real-world situations. Student likely requires extensive verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Basic	Student has a fundamental understanding of the concepts contained in the grade-appropriate APIs within the strands of: Processes and Interactions of the Earth's Systems, Composition and Structure of the Universe and the Motion of the Objects within it, Characteristics and Interactions of Living Organisms; or Changes in Ecosystems and Interactions of Organisms with Their Environment, and Scientific Inquiry or Impact of Science, Technology and Human Activity. Student work evidence is partially connected to the strands and fundamentally demonstrates application to real-world situations. Student likely requires frequent verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Proficient	Student has a sound understanding of the concepts contained in the grade-appropriate APIs within the strands of: Processes and Interactions of the Earth's Systems, Composition and Structure of the Universe and the Motion of the Objects within it, Characteristics and Interactions of Living Organisms; or Changes in Ecosystems and Interactions of Organisms with Their Environment, and Scientific Inquiry or Impact of Science, Technology and Human Activity. Student work evidence is connected to the strands and directly demonstrates application to real-world situations. Student likely requires occasional verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a strong understanding of the concepts contained in the grade-appropriate APIs within the strands of: Processes and Interactions of the Earth's Systems, Composition and Structure of the Universe and the Motion of the Objects within it, Characteristics and Interactions of Living Organisms; or Changes in Ecosystems and Interactions of Organisms with Their Environment, and Scientific Inquiry or Impact of Science, Technology and Human Activity. Student work evidence is highly connected to the strands and demonstrates strong application to real-world situations. Student rarely requires verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grade 8	Science
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade-appropriate APIs within the strands of: Properties and Principles of Matter and Energy, Properties and Principles of Force and Motion, Processes and Interactions of the Earth's Systems or Composition and Structure of the Universe and the Motion of the Objects Within It, and Scientific Inquiry or Impact of Science, Technology, and Human Activity. Student work evidence may be weakly connected to the strands and/or demonstrates limited application to real-world situations. Student likely requires extensive verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Basic	Student has a fundamental understanding of the concepts contained in the grade-appropriate APIs within the strands of: Properties and Principles of Matter and Energy, Properties and Principles of Force and Motion, Processes and Interactions of the Earth's Systems or Composition and Structure of the Universe and the Motion of the Objects Within It, and Scientific Inquiry or Impact of Science, Technology, and Human Activity. Student work evidence is partially connected to the strands and fundamentally demonstrates application to real-world situations. Student likely requires frequent verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Proficient	Student has a sound understanding of the concepts contained in the grade-appropriate APIs within the strands of: Properties and Principles of Matter and Energy, Properties and Principles of Force and Motion, Processes and Interactions of the Earth's Systems or Composition and Structure of the Universe and the Motion of the Objects Within It, and Scientific Inquiry or Impact of Science, Technology, and Human Activity. Student work evidence is connected to the strands and directly demonstrates application to real-world situations. Student likely requires occasional verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a strong understanding of the concepts contained in the grade-appropriate APIs within the strands of: Properties and Principles of Matter and Energy, Properties and Principles of Force and Motion, Processes and Interactions of the Earth's Systems or Composition and Structure of the Universe and the Motion of the Objects Within It, and Scientific Inquiry or Impact of Science, Technology, and Human Activity. Student work evidence is highly connected to the strands and demonstrates strong application to real-world situations. Student rarely requires verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Grade 11	Science
Level not Determined	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.
Below Basic	Student has a minimal understanding of the concepts contained in the grade-appropriate APIs within the strands of: Characteristics and Interactions of Living Organisms, Changes in Ecosystems and Interactions of Organisms with Their Environments, Properties and Principles of Matter and Energy or Properties and Principles of Force and Motion, and Scientific Inquiry or Impacts of Science, Technology, and Human Activity. Student work evidence may be weakly connected to the strands and/or demonstrates limited application to real-world situations. Student likely requires extensive verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Basic	Student has a fundamental understanding of the concepts contained in the grade-appropriate APIs within the strands of: Characteristics and Interactions of Living Organisms, Changes in Ecosystems and Interactions of Organisms with Their Environments, Properties and Principles of Matter and Energy or Properties and Principles of Force and Motion, and Scientific Inquiry or Impacts of Science, Technology, and Human Activity. Student work evidence is partially connected to the strands and fundamentally demonstrates application to real-world situations. Student likely requires frequent verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Proficient	Student has a sound understanding of the concepts contained in the grade-appropriate APIs within the strands of: Characteristics and Interactions of Living Organisms, Changes in Ecosystems and Interactions of Organisms with Their Environments, Properties and Principles of Matter and Energy or Properties and Principles of Force and Motion, and Scientific Inquiry or Impacts of Science, Technology, and Human Activity. Student work evidence is connected to the strands and directly demonstrates application to real-world situations. Student likely requires occasional verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
Advanced	Student has a strong understanding of the concepts contained in the grade-appropriate APIs within the strands of: Characteristics and Interactions of Living Organisms, Changes in Ecosystems and Interactions of Organisms with Their Environments, Properties and Principles of Matter and Energy or Properties and Principles of Force and Motion, and Scientific Inquiry or Impacts of Science, Technology, and Human Activity. Student work evidence is highly connected to the strands and demonstrates strong application to real-world situations. Student rarely requires verbal, visual, and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

MAP-A Cut Scores

MAP-A cut scores for Mathematics, Communication Arts, and Science are found in the following table.

Grade Span	Content Area	Ach. Level	2012-2013 Raw Score Range
3-5	Math	BB	3-15
		B	16-26
		P	27-39
		A	40-44
3-5	CA	BB	3-18
		B	19-29
		P	30-40
		A	41-44
5	Science	BB	3-13
		B	14-24
		P	25-34
		A	35-44
6-8	Math	BB	3-20
		B	21-28
		P	29-40
		A	41-44
6-8	CA	BB	3-20
		B	21-32
		P	33-41
		A	42-44
8	Science	BB	3-15
		B	16-27
		P	28-36
		A	37-44
10	Math	BB	3-19
		B	20-30
		P	31-41
		A	42-44
11	CA	BB	3-23
		B	24-33
		P	34-40
		A	41-44
11	Science	BB	3-11
		B	12-22
		P	23-33
		A	34-44

Appendix E: Administration Training Materials

MAP-A 2013 – 2014 ADMINISTRATION TRAINING

Missouri
DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION

Department of Elementary and Secondary Education
Assessment Resource Center

Today's Topics

- Welcome and Introductions
- 2012-2013 Wrap-up
- Enrollment Information
- Distribution of MAP-A Manuals
- MAP-A Calendar 2013-2014
- ProFile Demonstration
- Q & A
- Lunch

2012-2013 Wrap-up

- 2012-2013 Score Reports
- 2013-2013 Impact Data
- 2012-2013 Scoring Issues
- Appeals

District Report

Missouri
DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION

MAP-A 2013
Missouri Assessment Program - Alternate

District Report

Fakeville R-1
Pretendburgh
Imposter County
123456

Mathematics

	District Count	District Percent	State Count	State Percent	Middle School Grade 6, 7, 8 District Count	District Percent	State Count	State Percent	High School Grade 10 District Count	District Percent	State Count	State Percent
Advanced	1		1809	64.34	0		1528	54.37	0		550	64.55
Proficient	0		738	26.33	0		911	32.40	0		208	23.47
Basic	0		185	6.69	0		202	7.16	0		59	6.92
Below Basic	0		52	1.86	1	100.00	168	5.25	0		35	2.30
LND	0		22	0.78	0		22	0.78	0		23	2.74
Total Count	0		2809		1		2831		0		892	

Communication Arts

	District Count	District Percent	State Count	State Percent	Middle School Grade 6, 7, 8 District Count	District Percent	State Count	State Percent	High School Grade 11 District Count	District Percent	State Count	State Percent
Advanced	1		1749	62.40	0		1648	52.98	0		540	68.73
Proficient	0		811	28.93	0		759	24.91	1	100.00	105	13.36
Basic	0		174	6.28	0		624	15.35	0		105	14.43
Below Basic	0		61	1.44	1	100.00	168	5.25	0		94	11.90
LND	0		21	0.75	0		23	0.73	0		15	1.90
Total Count	0		2809		1		2821		1		790	

Science

	District Count	District Percent	State Count	State Percent	Middle School Grade 8 District Count	District Percent	State Count	State Percent	High School Grade 11 District Count	District Percent	State Count	State Percent
Advanced	1		654	70.60	0		594	65.28	1	100.00	575	72.53
Proficient	0		208	21.94	0		199	21.88	0		162	17.97
Basic	0		51	5.49	0		82	8.98	0		61	5.82
Below Basic	0		9	0.65	0		22	2.41	0		15	1.69
LND	0		14	1.31	0		14	1.53	0		16	2.09
Total Count	0		929		0		915		1		790	

Student Report Parent Copy

Missouri
DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION

MAP-A 2013
Missouri Assessment Program - Alternate

Student Report Communication Arts (Parent Copy)

Name: **Paul**
MOSIS: 0123456789 Grade: 7
Birthdate: 4/29/1995

School of Residence:
Pretendburgh
Fakeville R-1
123456

School of Attendance:
Pretendburgh
Fakeville R-1
123456

MAP-A Communication Arts Achievement Level: Advanced

		Advanced	Student has a high level of understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be closely connected to the standards and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
		Proficient	Student has some understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be connected to the standards and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
		Basic	Student has a limited understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be somewhat connected to the standards. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
		Below Basic	Student has a minimal understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be loosely connected to the standards. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
		Level not Determined (LND)	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.

	API	API Description		
Strand 1	RD3.7.1	Recognize consonant digraphs.	Level of Accuracy Level of Independence Connection to Standards	4 4 3
Strand 1	RD3.7.2	Use a basic dictionary and glossary (may be picture dictionary, personal dictionary).	Level of Accuracy Level of Independence Connection to Standards	4 4 1
Strand 2	WCS.1.1	Use phrases and/or sentences to convey a thought.	Level of Accuracy Level of Independence Connection to Standards	4 4 3
Strand 2	WCS.3.1	Use phonetic spelling of initial sounds of key words.	Level of Accuracy Level of Independence Connection to Standards	4 4 3

Student Report Parent Copy

This is a parent's copy of a MAP-A Individual Student Report of achievement in a single content area or subject. The following information may be found on this report.

- Content area assessed (Mathematics, Communication Arts, or Science)
- Student's MAP-A achievement level
- Achievement level descriptors (Advanced, Proficient, Basic, Below Basic, and Level Not Determined)
- Descriptions of the APIs (Alternate Performance Indicators) assessed
- Level of Accuracy, Level of Independence, and Connection to Standards scores for each entry

MAP-A Background

The Individuals with Disabilities Education Improvement Act (IDEA) of 2004 requires that students with disabilities participate in the general education curriculum with supplementary aides and supports when necessary. IDEA 2004 further requires that students with disabilities be included in all state- and district-wide assessment programs with appropriate accommodations or alternate assessments when necessary, as determined by their Individualized Education Program (IEP) team. In addition, the No Child Left Behind Act (NCLB) of 2001 requires that all students participate in state assessments in English language arts, mathematics, and science and that DESE report student performance to the public.

In Missouri, students with significant cognitive disabilities participate in the MAP-Alternate (MAP-A), ensuring that each student has the opportunity to acquire the knowledge and skills in the Missouri Show-Me Standards.

The MAP-A is a performance-based assessment in which teachers collect data and student work. The collected evidence provides documentation of the student's accuracy and independence and ensures that there is a connection between the Show-Me Standards and instruction.

The MAP-A is

- required by federal law;
- designed only for students with significant cognitive disabilities who meet grade-level and participation criteria;
- reflective of input from an IEP team, which may include teachers, physical therapists, speech therapists, occupational therapists, paraprofessionals, job coaches, parents or guardians, and the student, if appropriate;
- administered at the same grade levels as students participating in Missouri's general assessment; and
- scored using the MAP-A Scoring Rubric; raw scores are then converted to reported achievement levels.

Assessment Blueprint

The MAP-A assesses student learning directly connected to the Show-Me Standards, through the Alternate Grade-Level Expectations (AGLEs) for students who are MAP-A eligible. The MAP-A assesses student work in each of two strands in Communication Arts and Mathematics and four strands in Science, as shown in the table below.

Content Area	Required Grades	Strand
Mathematics	3-8, & 11	Numbers and Operations
	3-8	Algebraic Relationships and/or Geometric and Spatial Relationships
	6-8	Data and Probability
	5	Measurement
Communication Arts	3-8, & 11	Reading
	3-5	Writing Composition
	6-8, & 11	Writing Process
Science	5	Processes and Interactions of the Earth's Systems
		Composition and Structure of the Universe and the Motion of the Objects within It
		Scientific Inquiry -NR- Impact of Science, Technology, and Human Activity
		Characteristics and Interactions of Living Organisms -NR- Changes in Ecosystems and Interactions of Organisms with Their Environment
	8	Properties and Principles of Matter and Energy
		Properties and Principles of Force and Motion
		Processes and Interactions of the Earth's Systems -NR- Composition and Structure of the Universe and the Motion of the Objects within It
		Scientific Inquiry -NR- Impact of Science, Technology, and Human Activity
	11	Characteristics and Interactions of Living Organisms
		Changes in Ecosystems and Interactions of Organisms with Their Environment
		Scientific Inquiry -NR- Impact of Science, Technology, and Human Activity
		Properties and Principles of Matter and Energy -NR- Properties and Principles of Force and Motion

Alternate Performance Indicators (APIs), component concepts of the strands outlined in the table above, are assessed for each strand. The four specific APIs assessed in this student's MAP-A are listed on the reverse side of this report.

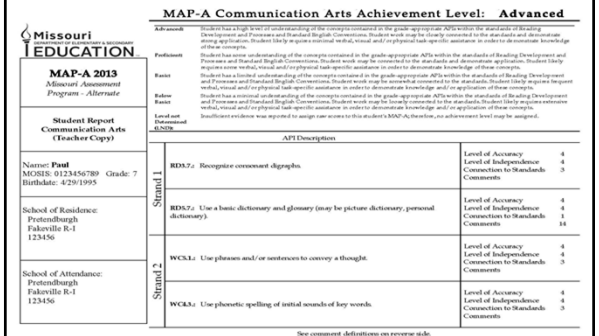
Scoring

The MAP-A is assessed over three criteria, or scoring dimensions:

- Level of Accuracy - points possible per entry
- Level of Independence - points possible per entry
- Connection to the Standards - points possible per entry

The entries that make up the MAP-A are assigned a raw score for each of the scoring dimensions. Eleven points are possible for each entry. The raw scores for each API assessed are reported on the reverse side of this report. Raw scores are totaled and then converted to the overall achievement level reported for the subject area. For more information, see the *Guide to Interpreting MAP-A Results*.

Student Report Teacher Copy



MAP-A Communication Arts Achievement Level: **Advanced**

Missouri Department of Elementary & Secondary Education

MAP-A 2013
Missouri Assessment Program – Alternate

Student Report Communication Arts (Teacher Copy)

Name: **Paul**
MOSIS: 0123456789 Grade: 7
Birthdate: 4/29/1995

School of Residence:
Pretendburgh
Fakeville R-1
123456

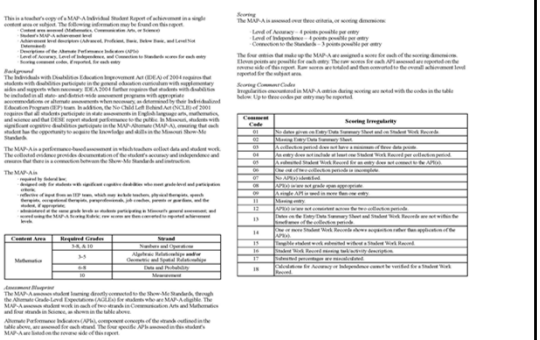
School of Attendance:
Pretendburgh
Fakeville R-1
123456

	Advanced	Student has a high level of understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be closely connected to the standards and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
	Proficient	Student has some understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be connected to the standards and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.
	Basic	Student has a limited understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be somewhat connected to the standards. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
	Below Basic	Student has a minimal understanding of the concepts contained in the grade-appropriate APIs within the standards of Reading Development and Processes and Standard English Conventions. Student work may be loosely connected to the standards. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.
	Level not Determined (LND)	Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.

	API	Description		
Strand 1	RDS.7.c	Recognize consonant digraphs.	Level of Accuracy Level of Independence Connection to Standards Comments	4 4 3
	RDS.7.f	Use a basic dictionary and glossary (may be picture dictionary, personal dictionary).	Level of Accuracy Level of Independence Connection to Standards Comments	4 4 1 14
Strand 2	WCS.1.c	Use phrases and/or sentences to convey a thought.	Level of Accuracy Level of Independence Connection to Standards Comments	4 4 3
	WCS.3.c	Use phonetic spelling of initial sounds of key words.	Level of Accuracy Level of Independence Connection to Standards Comments	4 4 3

See comment definitions on reverse side.

Student Report Teacher Copy



Reporting
This is a teacher's copy of a MAP-A Individual Student Report of achievement in a single content area or subject. The following information may be found on this report:
- Content area assessed (Mathematics, Communication Arts, or Science)
- Student's MAP-A achievement level
- Achievement level descriptors (Advanced, Proficient, Basic, Below Basic, and Level Not Determined)
- Descriptions of the Alternate Performance Indicators (APIs)
- Level of Accuracy, Level of Independence, and Connection to Standards scores for each entry
- Scoring comment codes, if reported, for each entry

Background
The Individuals with Disabilities Education Improvement Act (IDEA) of 2004 requires that students with disabilities participate in the general education curriculum with supplementary aides and supports when necessary. IDEA 2004 further requires that students with disabilities be included in all state- and district-wide assessment programs with appropriate accommodations or alternate assessments when necessary, as determined by their Individualized Education Program (IEP) team. In addition, the No Child Left Behind Act (NCLB) of 2001 requires that all students participate in state assessments in English language arts, mathematics, and science. The MAP-A is the alternate assessment for grades 3–8 and 11 for students with significant cognitive disabilities who participate in the MAP-Alternate (MAP-A), ensuring that each student has the opportunity to acquire the knowledge and skills in the Missouri Show-Me Standards.

The MAP-A is a performance-based assessment in which teachers collect data and student work. The collected evidence provides documentation of the student's accuracy and independence and ensures that there is a connection between the Show-Me Standards and instruction.

The MAP-A is:
- required by federal law;
- designed only for students with significant cognitive disabilities who meet grade-level and participation criteria;
- reflective of input from an IEP team, which may include teachers, physical therapists, speech therapists, occupational therapists, paraprofessionals, job coaches, parents or guardians, and the student, if appropriate;
- administered at the same grade levels as students participating in Missouri's general assessment, and
- scored using the MAP-A Scoring Rubric; raw scores are then converted to reported achievement levels.

Content Area	Required Grades	Strand
Mathematics	3-8, & 10	Numbers and Operations
	3-5	Algebraic Relationships **and/or** Geometric and Spatial Relationships
	6-8	Data and Probability
	11	Measurement

Assessment Blueprint
The MAP-A assesses student learning directly connected to the Show-Me Standards, through the Alternate Grade-Level Expectations (AGLEs) for students who are MAP-A eligible. The MAP-A assesses student work in each of two strands in Communication Arts and Mathematics and four strands in Science, as shown in the table above.

Alternate Performance Indicators (APIs), component concepts of the strands outlined in the table above, are assessed for each strand. The four specific APIs assessed in this student's MAP-A are listed on the reverse side of this report.

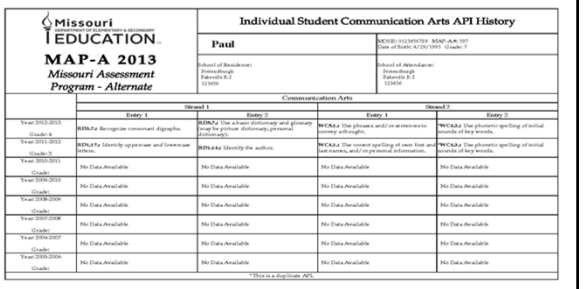
Scoring
The MAP-A is assessed over three criteria, or scoring dimensions:
- Level of Accuracy – 4 points possible per entry
- Level of Independence – 4 points possible per entry
- Connection to the Standards – 3 points possible per entry

The four entries that make up the MAP-A are assigned a score for each of the scoring dimensions. Eleven points are possible for each entry. The raw scores for each API assessed are reported on the reverse side of this report. Raw scores are totaled and then converted to the overall achievement level reported for the subject area.

Scoring Comment Codes
Irregularities encountered in MAP-A entries during scoring are noted with the codes in the table below. Up to three codes per entry may be reported.

Comment Code	Scoring Irregularity
01	No dates given on Entry Data Summary Sheet and on Student Work Records
02	Missing Entry Data Summary Sheet
03	A collection period does not have a minimum of three data points
04	An entry does not include at least one Student Work Record per collection period
05	A submitted Student Work Record for an entry does not connect to the API(s)
06	One out of two collection periods is incomplete.
07	No API(s) identified.
08	API(s) is/are not grade-span appropriate.
09	A single API is used in more than one entry.
11	Missing entry.
12	API(s) is/are not consistent across the two collection periods.
13	Dates on the Entry Data Summary Sheet and Student Work Records are not within the timeframes of the collection periods.
14	One or more Student Work Records shows acquisition rather than application of the API(s).
15	Tangible student work submitted without a Student Work Record.
16	Student Work Record missing task/activity description.
17	Submitted percentages are miscalculated.
18	Calculations for Accuracy or Independence cannot be verified for a Student Work Record.

API History Report



Missouri Department of Elementary & Secondary Education

MAP-A 2013
Missouri Assessment Program - Alternate

Individual Student Communication Arts API History

Paul

MOSIS: 0123456789 MAP-A #: 597
Date of Birth: 4/29/1995 Grade: 7

School of Residence:
Pretendburgh
Fakeville R-1
123456

School of Attendance:
Pretendburgh
Fakeville R-1
123456

Communication Arts	Strand 1		Strand 2	
	Entry 1	Entry 2	Entry 1	Entry 2
Year: 2012-2013 Grade: 8	RDS.7.c Recognize consonant digraphs.	RDS.7.f Use a basic dictionary and glossary (may be picture dictionary, personal dictionary).	WCS.1.c Use phrases and/or sentences to convey a thought.	WCS.3.c Use phonetic spelling of initial sounds of key words.
Year: 2011-2012 Grade: 7	RDS.5.7.c Identify uppercase and lowercase letters.	RDS.4.6.c Identify the author.	WCS.1.c Use correct spelling of own first and last names, and/or personal information.	WCS.3.c Use phonetic spelling of initial sounds of key words.
Year: 2010-2011 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2009-2010 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2008-2009 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2007-2008 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2006-2007 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2005-2006 Grade:	No Data Available	No Data Available	No Data Available	No Data Available

*This is a duplicate API.

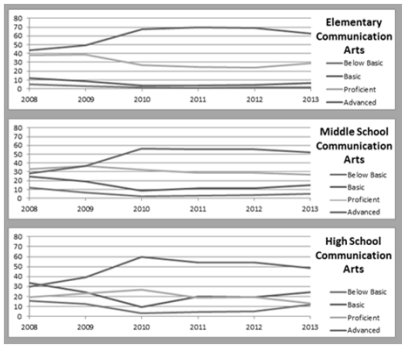
2012–2013 Impact Data

Communication Arts

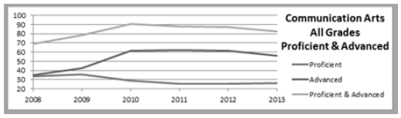
MAP-A Student Performance 2008-2013 Communication Arts

Grade Span	Achievement Level	2008		2009		2010		2011		2012		2013	
		#	%	#	%	#	%	#	%	#	%	#	%
Elementary School	Level Not Determined	19	0.87	20	0.82	16	0.69	27	0.96	33	1.17	21	.76
	Below Basic	115	5.25	68	2.79	31	1.14	21	0.74	33	1.17	46	1.64
	Basic	271	12.36	210	8.62	103	3.79	99	3.51	124	4.40	176	6.28
	Proficient	837	38.18	943	38.70	732	26.93	703	24.92	679	24.09	811	28.93
	Advanced	950	43.34	1196	49.08	1836	67.55	1971	69.87	1950	69.17	1749	62.40
	Total	**2192**	**100**	**2437**	**100**	**2718**	**100**	**2821**	**100**	**2819**	**100**	**2803**	**100**
Middle School	Level Not Determined	36	1.79	22	0.98	19	0.77	31	1.18	36	1.24	20	.71
	Below Basic	247	12.29	145	6.48	61	2.48	76	2.90	98	3.46	148	5.25
	Basic	496	24.68	424	18.96	209	8.50	305	11.62	314	11.09	426	15.10
	Proficient	666	33.13	821	36.72	793	32.24	750	28.58	809	28.57	759	26.91
	Advanced	565	28.11	824	36.85	1378	56.02	1462	55.72	1576	55.65	1468	52.04
	Total	**2010**	**100**	**2236**	**100**	**2460**	**100**	**2624**	**100**	**2832**	**100**	**2821**	**100**
High School	Level Not Determined	9	1.62	9	1.31	5	0.73	21	2.97	19	2.68	15	1.90
	Below Basic	82	15.51	85	12.36	20	2.92	31	4.38	35	4.76	94	11.90
	Basic	199	33.56	166	24.13	65	9.60	139	19.66	141	19.16	193	24.43
	Proficient	115	19.39	159	23.11	185	27.06	133	18.81	142	19.29	103	13.04
	Advanced	178	30.02	269	39.10	409	59.80	383	54.17	399	54.21	385	48.73
	Total	**593**	**100**	**688**	**100**	**684**	**100**	**707**	**100**	**736**	**100**	**790**	**100**

Communication Arts



Communication Arts



Communication Arts

2013 MAP-A API Usage
Communication Arts

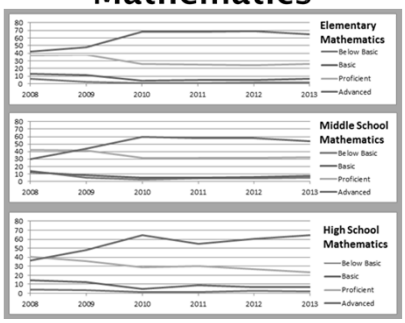
Grades 3-5			Grades 6-8			Grade 11		
APIs Most Often Assessed	# of Times Assessed	% of Total Entries	APIs Most Often Assessed	# of Times Assessed	% of Total Entries	APIs Most Often Assessed	# of Times Assessed	% of Total Entries
WC2.2	600	5.40	WP1.3	469	4.20	WP1.3	151	4.89
WC4.1	499	4.49	WP1.8	444	3.97	WP2.3	134	4.34
WC1.1	483	4.35	WP2.3	423	3.79	WP3.4	110	3.56
WC1.5	464	4.18	WP3.1	380	3.40	WP5.4	102	3.30
WC1.4	456	4.11	WP1.1	348	3.11	WP3.1	97	3.14
WC2.6	362	3.26	WP3.2	281	2.52	WP5.3	93	3.01
RD4.1	354	3.19	WP3.4	270	2.42	WP3.2	85	2.75
WC1.2	347	3.12	WP1.7	259	2.32	WP1.8	71	2.30
RD1.9	344	3.10	RD1.6	212	1.90	RD4.2	68	2.20
WC6.1	322	2.90	WP2.9	208	1.86	RP3.2	62	2.01

Mathematics

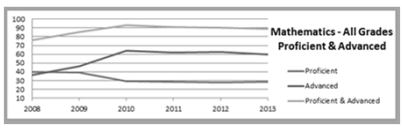
MAP-A Student Performance
2008-2013
Mathematics

Grade Span	Achievement Level	2008		2009		2010		2011		2012		2013	
		#	%	#	%	#	%	#	%	#	%	#	%
Elementary School	Level Not Determined	21	0.96	21	0.86	16	0.59	27	0.96	31	1.10	22	.78
	Below Basic	135	6.16	66	2.71	28	1.03	29	1.03	48	1.70	52	1.86
	Basic	291	13.28	270	11.08	107	3.94	133	4.71	130	4.61	182	6.49
	Proficient	817	37.27	921	37.79	717	26.38	716	25.38	677	24.02	738	26.33
	Advanced	928	42.34	1159	47.56	1850	68.06	1916	67.92	1933	68.57	1809	64.54
	Total	**2192**	**100**	**2437**	**100**	**2718**	**100**	**2821**	**100**	**2819**	**100**	**2803**	**100**
Middle School	Level Not Determined	36	1.74	17	0.76	21	0.86	32	1.22	36	1.27	22	.78
	Below Basic	276	13.73	113	5.06	66	2.68	106	4.04	111	3.92	148	5.25
	Basic	252	12.54	194	8.68	127	5.16	134	5.11	160	5.65	202	7.16
	Proficient	848	42.19	923	41.28	781	31.75	837	31.90	895	31.60	921	32.65
	Advanced	599	29.80	989	44.23	1465	59.55	1515	57.74	1630	57.56	1528	54.17
	Total	**2010**	**100**	**2236**	**100**	**2460**	**100**	**2624**	**100**	**2832**	**100**	**2821**	**100**
High School	Level Not Determined	26	4.75	4	0.61	9	1.23	31	4.10	29	3.42	23	2.70
	Below Basic	22	4.02	21	3.21	9	1.23	12	1.59	22	2.59	20	2.36
	Basic	78	14.26	83	12.69	36	4.80	70	9.25	61	7.18	59	6.92
	Proficient	222	40.59	232	35.47	208	28.53	230	30.38	227	26.74	200	23.47
	Advanced	199	36.38	314	48.01	468	64.2	414	54.69	510	60.07	550	64.55
	Total	**547**	**100**	**654**	**100**	**729**	**100**	**757**	**100**	**849**	**100**	**852**	**100**

Mathematics



Mathematics



Mathematics

2013 MAP-A API Usage
Mathematics

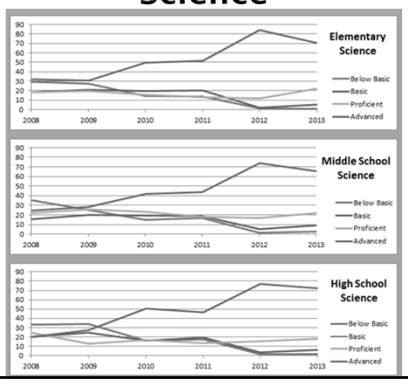
Grades 3-5			Grades 6-8			Grade 10		
APIs Most Often Assessed	# of Times Assessed	% of Total Entries	APIs Most Often Assessed	# of Times Assessed	% of Total Entries	APIs Most Often Assessed	# of Times Assessed	% of Total Entries
AR3.1.B	624	4.73	DP2.1.B	639	5.72	ME3.4.A	274	8.26
AR2.1.A	443	4.00	DP2.1.A	594	5.32	ME2.1.E	118	3.66
AR1.1.E	389	3.61	DP4.1.C	424	3.80	NO12.2	90	2.71
AR3.1.A	362	3.27	DP3.2.B	310	2.78	ME2.1.B	90	2.71
NO1.0	291	2.62	DP3.1.C	291	2.61	ME2.1.A	87	2.62
AR7.1.B	284	2.66	DP1.1.B	285	2.55	ME3.4	67	2.02
NO1.3.A	263	2.37	DP3.1.D	284	2.54	NO1.6	60	1.81
NO4.2	258	2.33	DP3.1.A	280	2.51	ME3.3.G	58	1.75
AR3.1.C	249	2.26	DP1.2	269	2.41	ME3.1.D	58	1.75
NO1.6	228	2.06	DP1.2.A	237	2.12	ME2.1.F	58	1.75

Science

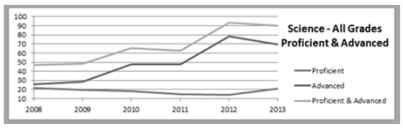
MAP-A Student Performance
2008-2013
Science

Grade Span	Achievement Level	2008		2009		2010		2011		2012		2013	
		#	%	#	%	#	%	#	%	#	%	#	%
Elementary School	Level Not Determined	18	2.58	15	1.91	11	1.23	9	0.92	10	1.03	14	1.51
	Below Basic	204	29.18	214	27.30	128	14.30	136	13.85	11	1.14	6	.65
	Basic	126	18.03	166	21.17	174	19.44	200	20.51	19	1.96	51	5.49
	Proficient	127	18.17	161	19.26	141	15.76	127	13.03	112	11.58	204	21.96
	Advanced	224	32.06	238	30.36	441	49.27	504	51.69	815	84.28	664	70.40
	Total	**699**	**100**	**784**	**100**	**895**	**100**	**975**	**100**	**967**	**100**	**929**	**100**
Middle School	Level Not Determined	20	3.06	6	0.67	6	0.78	23	2.83	20	2.26	14	1.53
	Below Basic	230	35.11	186	24.83	116	15.12	139	17.08	15	1.69	22	2.41
	Basic	101	15.42	151	20.16	146	19.04	150	18.43	49	5.52	82	8.98
	Proficient	142	21.68	194	26.90	177	23.08	147	18.06	147	16.67	199	21.80
	Advanced	162	24.73	213	28.44	322	41.98	365	43.61	656	73.96	696	66.28
	Total	**655**	**100**	**749**	**100**	**767**	**100**	**814**	**100**	**887**	**100**	**913**	**100**
High School	Level Not Determined	15	2.53	9	1.31	7	1.02	23	3.25	19	2.58	16	2.03
	Below Basic	196	33.05	233	33.87	109	15.94	121	17.11	12	1.63	13	1.65
	Basic	118	19.90	171	24.85	109	15.94	137	19.38	23	3.12	46	5.82
	Proficient	147	24.79	87	12.65	112	16.37	96	13.44	115	15.62	142	17.97
	Advanced	117	19.73	188	27.33	347	50.73	331	46.82	567	77.04	573	72.53
	Total	**593**	**100**	**688**	**100**	**684**	**100**	**707**	**100**	**736**	**100**	**790**	**100**

Science



Science



Science

2013 MAP-A API Usage
Science

Grade 5			Grade 8			Grade 11		
APIs Most Often Assessed	# of Times Assessed	% of Total Entries	APIs Most Often Assessed	# of Times Assessed	% of Total Entries	APIs Most Often Assessed	# of Times Assessed	% of Total Entries
ES7.1	329	9.00	ME2.2	178	4.96	EC2.3	181	5.87
UN1.2	284	7.77	FM1.2	139	3.87	EC1.5	140	4.54
IN5.1	241	6.59	ME1.1	123	3.43	EC1.4	134	4.35
UN1.1	216	5.91	ME1.3	121	3.37	ME1.3	110	3.57
UN4.2	149	4.08	ES7.1	94	2.62	LO1.3	102	3.31
EC1.5	137	3.75	ES7.2	93	2.59	LO1.4	100	3.24
EC1.4	134	3.67	ME1.7	81	2.26	LO1.5	87	2.82
LO1.3	103	2.82	IN5.1	76	2.12	ME1.7	86	2.76
ST1.2	100	2.74	IN1.1	75	2.09	LO1.1	69	2.24
ES8.3	97	2.65	IN2.4	69	1.92	IN5.1	69	2.24

Overall Proficiency Percentages

- Communication Arts 82%
- Mathematics 89%
- Science 90%

Comment Codes 2012-2013

2013 MAP-A Comment Code Distribution

Code	Data Irregularity	Scoring Rule	# of Appearances in Scored Entries	% of Total Scored Entries 2013	% of Total Scored Entries 2012	% of Total Scored Entries 2011
01	No dates given on Entry/Data Summary Sheet and on Student Work Records.	Entry is assigned a "No Score" for each dimension of the rubric.	16	0.03	0.06	0.01
02	Missing Entry/Data Summary Sheet.	Entry is assigned a "No Score" for each dimension of the rubric.	47	0.08	0.05	0.06
03	A collection period does not have a minimum of three data points.	Entry is assigned a "No Score" for each dimension of the rubric.	280	0.46	0.62	0.53
04	An entry does not include at least one Student Work Record per Collection Period.	Entry is assigned a "No Score" for each dimension of the rubric.	146	0.24	0.26	0.27
05	A submitted Student Work Record for an entry does not connect to the APIs.	Entry is assigned a "No Score" for each dimension of the rubric.	5002	8.06	5.29	6.34
06	One out of two collection periods is incomplete.	Entry is assigned a "No Score" for each dimension on the rubric.	17	0.00	0.13	0.06
07	No API/s identified on a Student Work Record or Entry Data/Summary Sheet.	The collection period is considered incomplete. Entry is assigned a "No Score" for each dimension on the rubric.	0	0.00	0.00	0.00
08	The API/s is/are not grade span appropriate.	The collection period is considered incomplete. Entry is assigned a "No Score" for each dimension on the rubric.	11	0.03	0.00	0.07
09	A single API is used in more than one entry.	The first instance is scored. In the second instance, the entry is assigned "0 Data Points" in both collection periods and	0	0.02	<0.01	0.01

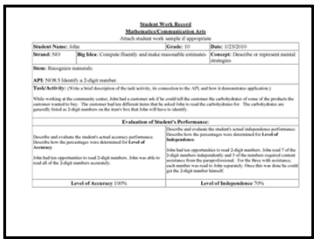
Comment Codes 2011-2012

2013 MAP-A Comment Code Distribution (cont.)

Code	Data Irregularity	Scoring Rule	# of Appearances in Scored Entries	% of Total Scored Entries 2013	% of Total Scored Entries 2012	% of Total Scored Entries 2011
11	Missing entry.	Entry is assigned "0 Data Points" in both collection periods and "No Score" for each dimension on the rubric.	830	1.34	1.69	1.57
12	APIs is/are not consistent across the 2 collection periods.	Entry is assigned a "No Score" for each dimension of the rubric.	0	0.00	0.00	0.01
13	Dates on the Entry/Data Summary Sheet and Student Work Records are not within the timeframes of the collection periods.	Any data from dates outside of the timeframes is not used for scoring.	0	0.00	0.00	0.00
14	One or more Student Work Records shows acquisition rather than application of the API/s.	The activity in these collection periods cannot be considered application.	8540	13.75	14.30	12.87
15	Student work sample or piece of tangible student work submitted without a Student Work Record attached.	The activity in this collection period cannot be considered application.	0	0.00	0.00	0.00
16	Student Work Record missing task/activity description.	The activity in this collection period cannot be considered application.	5	0.01	0.01	0.02
17	Submitted percentages are miscalculated.	Scorer corrects percentages.	1292	2.08	2.36	2.46
18	Percentage calculations for Accuracy or Independence cannot be verified for a Student Work Record.	Percentage for Accuracy or Independence for the Student Work Record is replaced with zero and entry average is	2078	3.35	3.63	3.48

2013-2014 Scoring Issues

Samples



Student Work Record
Mathematics/Communication Arts
Attach student work sample if appropriate

Student Name: John **Grade:** 10 **Date:** 1/25/2010

Strand: NO **Big Idea:** Compute fluently and make reasonable estimates **Concept:** Describe or represent mental strategies

Item: Recognize numerals.

API: NOR.5 Identify a 2-digit number.

Task/Activity: (Write a brief description of the task activity, its connection to the API, and how it demonstrates application.)

While working at the community center, John had a customer ask if he could tell the customer the carbohydrates of some of the products the customer wanted to buy. The customer had ten different items that he asked John to read the carbohydrates for. The carbohydrates are generally listed as 2-digit numbers on the item's box that John will have to identify.

Evaluation of Student's Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy.**

John had ten opportunities to read 2-digit numbers. John was able to read all of the 2-digit numbers accurately.

Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence.**

John had ten opportunities to read 2-digit numbers. John read 7 of the 2-digit numbers independently and 3 of the numbers required content assistance from the paraprofessional. For the three with assistance, John was able to read the 2-digit number accurately. Once this was done he could get the 2-digit number himself.

Level of Accuracy 100% **Level of Independence** 70%

The Big Bang Theory

String Theory

Where is the Activity?

Application in the Future

Appeals

- Appeal deadline was August 9th.
- Districts will receive new score reports by the end of September.

2013-2014 Roll-Out

- Enrollment Information
- MAP-A Calendar 2013-2014
- Distribution of MAP-A Manuals

Enrollment Information

https://mapa.missouri.edu

http://dese.mo.gov/

Distribution of Manuals

Missouri Assessment Program-Alternate (MAP-A)

2013-2014
Instructor's Guide
and Implementation Manual

DEVELOPED BY

Missouri Department of Elementary and Secondary Education
Assessment Resource Center
Measured Progress

MAP-A Calendar 2013-2014

Important Dates

2013-2014 MAP-A Timeline

Enrollment Window	9/9/2013 – 11/1/2013
ProFile Opens	9/9/2013
MAP-A Materials Ship to Districts	12/2/2013 – 1/10/2014
Transfer Student Participation Deadline	1/3/2014
Collection Period One	1/6/2014 – 1/31/2014
Collection Period Two	2/3/2014 – 2/28/2014
Deadline for Return Shipping	3/7/2014
ProFile Closes	3/8/2014

Transfer Student Deadline

MAP-A Enrollment Change	Transfer Date	Action
Transfer Into District	Through January 3, 2014	• Enroll via MAP-A Enrollment Website. • Complete MAP-A administration.
Transfer Out of District	Through January 3, 2014	• If already enrolled, original enrolling district deletes student from enrollment via MAP-A enrollment website. • Send MAP-A binder to ARC in March with the rest of your MAP-A submissions.
Transfer Into District	January 6, 2014 – February 28, 2014	• Do not enroll in MAP-A, the Grade-Level, or the End-of-Course Assessments.
Transfer Out of District	January 6, 2014 – February 28, 2014	• Follow step 4 of the Student Transfer Procedure detailed on page 3.
Transfer Into District	After February 28, 2014	• Do not enroll student in MAP-A, the Grade-Level, or End-of-Course Assessments.
Transfer Out of District	After February 28, 2014	• Submit MAP-A binder to ARC for scoring.
Transfer Within District	Any time after enrollment	• Update building code information via MAP-A enrollment website. • Complete MAP-A administration.

Transfer Student Deadline

4) Student Transfers Out of the District During the MAP-A Assessment Window

a. If a student enrolled in the MAP-A Assessment has been in the district for 50% + 1 day of the number of days in either MAP-A collection window and then the student moves or transfers out of the district, the district must return the bar-coded student binder to ARC in the shipment with the district's other MAP-A submissions by the return shipping deadline of March 7, 2014. The district is accountable for the student and the student will receive a score for the portion of the binder that the student completed. Do NOT ship the binder to any other district.

b. If a student enrolled in the MAP-A Assessment has been in the district for less than 50% + 1 day of the number of days in the first MAP-A collection window, and then the student moves or transfers out of the district, the district must do the following:

- Remove the student from the district's MAP-A enrollment: http://mapa.missouri.edu
- Return the bar-coded student binder to ARC in the shipment with the district's other MAP-A submissions by the return shipping deadline of March 7, 2014. Do NOT ship the binder to any other district.
- Submit a letter on district letterhead, signed by the superintendent, with the following information:
  - County/District Code
  - School Code
  - Student Name
  - MOSIS ID Number
  - Grade Level
  - Content Area
  - Detailed explanation of why the student did not participate in the MAP-A
- Mail the letter to:
  Accountability Data
  PO Box 480
  Jefferson City, MO 65102-0480
- File a copy of the letter at the district for any future reference.

The Multistep Process (page10)

The Multistep Process

Completion of the MAP-A Assessment requires the use of a multistep process that is divided into three stages: the process that occurs prior to the assessment, the activities that occur during the assessment window, and the procedures that must be completed after the assessment window closes.

The District Test Coordinator and the educators of the students with the most significant cognitive disabilities must ensure they have a clear understanding of the steps, the collection of data, and the manner in which the evidence must be submitted for the MAP-A prior to beginning the alternate assessment process. The steps outlined below are described in more detail in Chapter 7.

Table 1: The Multistep Process

Prior to MAP-A Assessment	
1.	The Individualized Education Program (IEP) team forms to make eligibility decisions for each applicable student. See Chapter 7 for details.
2.	Verify student eligibility for participation in the MAP-A. Refer to the student's IEP.
3.	Determine the composition of the instructional team that will assess the student and fully inform all participants about the MAP-A.
4.	Review the requirements for documentation for the MAP-A.
5.	Determine the data collection system for documentation of student performance. Check the API history for previously assessed APIs.
6.	Identify the mandatory strands in each content area.
7.	Select Alternate Performance Indicators (APIs) for each required content area strand.
8.	Write the assessment tasks or activities and ensure they are connected to the APIs.
During the Assessment Window	
1.	Collect and record data throughout the assessment period.
2.	Select one Student Work Record per entry to include in the MAP-A for each collection period.
3.	Determine the levels of accuracy and independence.
4.	Complete the Student Work Record.
5.	Complete the Entry/Data Summary Sheet for each entry.
After the Assessment Window Closes	

Eligibility Criteria (pages 11-15)

MAP-A Participation Eligibility Criteria

MAP-A eligibility is determined by the student's IEP team using DESE-established criteria. To help districts determine eligibility, three new guidance tools are included in this manual:

- the Alternate Assessment Decision Making Checklist,
- the Alternate Assessment Decision Making Flow Chart, and
- the Alternate Assessment Decision Making Guidance.

Additional resources are also available. A webinar and its transcript explains the factors that must be considered in determining if a student is eligible to participate in the alternate assessments and how to document the decision on the IEP for compliance with IDEA can be found at http://dese.mo.gov/webinar/webinar-02-28-13-SE.htm. Please contact the DESE Office of Special Education at (573) 751-5739 if you have any questions or need additional clarification after viewing the webinar and using the three new resources.

Using the Decision Making Checklist

Alternate assessment participation is determined by the student's IEP team, using the criteria established by the Department of Elementary and Secondary Education. The IEP team for a student with a disability MUST answer "YES" to ALL of the eligibility criteria in Table 2 in order for the student to be eligible to participate in the Missouri Alternate Assessment. Please refer to the Missouri Alternate Assessment Decision Making Guidance Document on page 14 for additional guidance in determining eligibility for the alternate assessment.

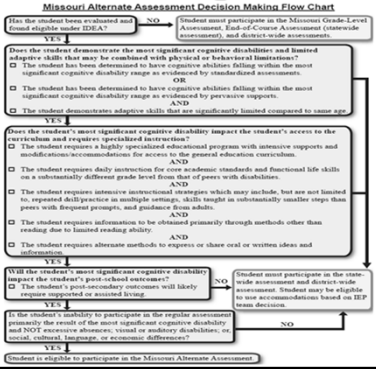
Decision Making Checklist

Missouri Alternate Assessment Decision Making Checklist

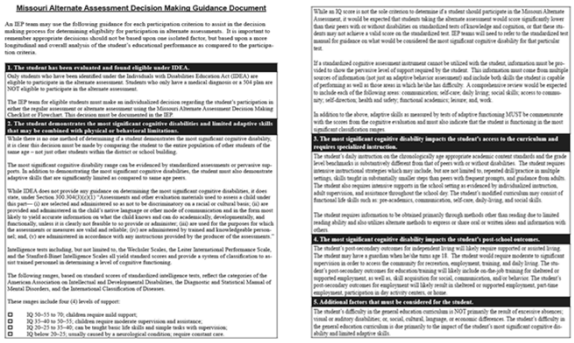
ELIGIBILITY CRITERIA		
1. Student has been evaluated and found eligible under IDEA. • The student has an identified disability under IDEA. AND • The student has an Individualized Education Plan.	☐ YES	☐ NO
2. The student demonstrates the most significant cognitive disabilities and limited adaptive skills that may be combined with physical or behavioral limitations. • The student has been determined to have cognitive abilities falling within the most significant cognitive disability range as evidenced by standardized assessments. OR • The student has been determined to have cognitive abilities falling within the most significant cognitive disability range as evidenced by pervasive supports. AND • The student demonstrates adaptive skills that are significantly limited compared to same age peers.	☐ YES	☐ NO
3. The most significant cognitive disability impacts the student's access to the curriculum and requires specialized instruction. • The student requires a highly specialized educational program with intensive supports and modifications/accommodations for access to the general education curriculum. AND • The student requires daily instruction for core academic standards and functional life skills on a substantially different grade level from that of peers with disabilities. AND • The student requires intensive instructional strategies which may include, but are not limited to, repeated drill/practice in multiple settings, skills taught in substantially smaller steps than peers with frequent prompts, and guidance from adults. AND • The student requires information to be obtained primarily through methods other than reading due to limited reading ability. AND • The student requires alternate methods to express or share oral or written ideas and information.	☐ YES	☐ NO
4. The most significant cognitive disability impacts the student's post-school outcomes. • The student's post-secondary outcomes likely require supported or assisted living.	☐ YES	☐ NO
5. Additional factors considered for the student. • The student's inability to participate in the regular assessment is primarily the result of the most significant cognitive disability and NOT excessive absences; visual or auditory disabilities; or, social, cultural, language or economic differences.	☐ YES	☐ NO

Decision Making Flow Chart

Missouri Alternate Assessment Decision Making Flow Chart



Decision Making Guidance Document



Missouri Alternate Assessment Decision Making Guidance Document

An IEP team may use the following guidance for each participation criterion to assist in the decision making process for determining eligibility for participation in alternate assessments. It is important to remember appropriate decisions should not be based upon one isolated factor, but based upon a more longitudinal and overall analysis of the student's educational performance as compared to the participation criteria.

1. The student has been evaluated and found eligible under IDEA.

Only students who have been identified under the Individuals with Disabilities Education Act (IDEA) are eligible to participate in the alternate assessment. Students who only have a medical diagnosis or a 504 plan are NOT eligible to participate in the alternate assessment.

The IEP team for eligible students must make an individualized decision regarding the student's participation in either the regular assessment or alternate assessment using the Missouri Alternate Assessment Decision Making Checklist or Flowchart. This decision must be documented in the IEP.

2. The student demonstrates the most significant cognitive disabilities and limited adaptive skills that may be combined with physical or behavioral limitations.

While there is no one method of determining if a student demonstrates the most significant cognitive disability, it is clear this decision must be made by comparing the student to the entire population of other students of the same age – not just other students within the district or school building.

The most significant cognitive disability range can be evidenced by standardized assessments or pervasive supports. In addition to demonstrating the most significant cognitive disabilities, the student must also demonstrate adaptive skills that are significantly limited as compared to same age peers.

While IDEA does not provide any guidance on determining the most significant cognitive disabilities, it does state, under Section 300.304(b)(2)(ii) "Assessments and other evaluation materials used to assess a child under this part— (ii) are selected and administered so as not to be discriminatory on a racial or cultural basis; (iii) are provided and administered in the child's native language or other mode of communication and in the form most likely to yield accurate information on what the child knows and can do academically, developmentally, and functionally, unless it is clearly not feasible to so provide or administer; (iii) are used for the purposes for which the assessments or measures are valid and reliable; (iv) are administered by trained and knowledgeable personnel; and, (v) are administered in accordance with any instructions provided by the producer of the assessments."

Intelligence tests including, but not limited to, the Wechsler Scales, the Leiter International Performance Scale, and the Stanford-Binet Intelligence Scales all yield standard scores and provide a system of classification to assist trained personnel in determining a level of cognitive functioning.

The following ranges, based on standard scores of standardized intelligence tests, reflect the categories of the American Association on Intellectual and Developmental Disabilities, the Diagnostic and Statistical Manual of Mental Disorders, and the International Classification of Diseases.

These ranges include four (4) levels of support:

- IQ 50-55 to 70; children require mild support;
- IQ 35-40 to 50-55; children require moderate supervision and assistance;
- IQ 20-25 to 35-40; can be taught basic life skills and simple tasks with supervision;
- IQ below 20-25, usually caused by a neurological condition; require constant care.

While an IQ score is not the sole criterion to determine if a student should participate in the Missouri Alternate Assessment, it would be expected that students taking the alternate assessment would score significantly lower than their peers with or without disabilities on standardized tests of knowledge and cognition, or that these students may not achieve a valid score on the standardized test. IEP teams will need to refer to the standardized test manual for guidance on what would be considered the most significant cognitive disability for that particular test.

If a standardized cognitive assessment instrument cannot be utilized with the student, information must be provided to show the pervasive level of support required by the student. This information must come from multiple sources of information (not just an adaptive behavior assessment) and include both skills the student is capable of performing as well as those areas in which he/she has difficulty. A comprehensive review would be expected to include each of the following areas: communication; self-care; daily living; social skills; access to community; self-direction; health and safety; functional academics; leisure; and, work.

In addition to the above, adaptive skills as measured by tests of adaptive functioning MUST be commensurate with the scores from the cognitive evaluation and must also indicate that the student is functioning in the most significant classification ranges.

3. The most significant cognitive disability impacts the student's access to the curriculum and requires specialized instruction.

The student's daily instruction on the chronologically age appropriate academic content standards and the grade level benchmarks is substantively different from that of peers with or without disabilities. The student requires intensive instructional strategies which may include, but are not limited to, repeated skill practice in multiple settings, skills taught in substantially smaller steps than peers with frequent prompts, and guidance from others. The student also requires intensive supports in the school setting as evidenced by individualized instruction, adult supervision, and assistance throughout the school day. The student's modified curriculum may consist of functional life skills such as: pre-academics, communication, self-care, daily-living, and social skills.

The student requires information to be obtained primarily through methods other than reading due to limited reading ability and also utilizes alternate methods to express or share oral or written ideas and information with others.

4. The most significant cognitive disability impacts the student's post-school outcomes.

The student's post-secondary outcomes for independent living will likely require supported or assisted living. The student may have a guardian when he/she turns age 18. The student would require moderate to significant supervision in order to access the community for recreation, employment, training, and daily living. The student's post-secondary outcomes for education/training will likely include on-the-job training for sheltered or supported employment, as well as, skill acquisition for social, communication, and/or behavior. The student's post-secondary outcomes for employment will likely result in sheltered or supported employment, part-time employment, participation in day activity centers, or home.

5. Additional factors that must be considered for the student.

The student's difficulty in the general education curriculum is NOT primarily the result of excessive absences; visual or auditory disabilities; or, social, cultural, language, or economic differences. The student's difficulty in the general education curriculum is due primarily to the impact of the student's most significant cognitive disability and limited adaptive skills.

Alternate Performance Indicators

- APIs and Data Collection Forms are no longer found in the print version of the Administration Manual.
- They can be accessed via the DESE website or ProFile.
- http://dese.mo.gov/

Paul & ProFile 2013-2014

https://reporting.uat.measuredprogress.org/MAPA/login.aspx

Final Q & A

???

Appendix F: MAP-A Scoring Criteria

Mathematics and Communication Arts must address **two strands** as indicated on the Assessment Blueprint. Within each strand, **two different** Alternate Performance Indicators (APIs) are assessed, each in a single entry. Science must address **four strands** as indicated on the Assessment Blueprint, assessing one API per strand, each in a single entry. The rubric will be applied to each **entry** addressed in the MAP-A.

Level of Accuracy Rubric and Scoring

How accurate is the student's performance of the skills and concepts addressed in the MAP-A? See the rubric in Table 1 below. Table 2 describes how each level of this rubric dimension is scored.

Table 1. Level of Accuracy Rubric

	Score Point				
	4	**3**	**2**	**1**	**No Score**
Level of Accuracy (Based on Alternate Performance Indicators)	Student performance of skills demonstrates a high level of understanding of concepts. **76–100% Accuracy**	Student performance of skills demonstrates some understanding of concepts. **51–75% Accuracy**	Student performance of skills demonstrates a limited understanding of concepts. **26–50% Accuracy**	Student performance of skills demonstrates a minimal understanding of concepts. **0–25% Accuracy**	Entry contains insufficient information to determine a score.

Table 2: Description of Scoring Rubric Dimensions for Level of Accuracy

Score Point	Description
4	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 76–100% of the time across the two data collection periods.
3	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 51–75% of the time across the two data collection periods.
2	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 26–50% of the time across the two data collection periods.
1	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 0–25% of the time across the two data collection periods.
NS	Insufficient information was given. The Entry/Data Summary Sheet was incomplete. Each API must have six data points (three per collection period) as indicated on the Entry/Data Summary Sheet.

All data must be reported as a percentage score on the Entry/Data Summary Sheet. More information is provided in the *Instructor's Guide and Implementation Manual* regarding data collection strategies. The teacher averages the two data periods. The student's level of accuracy for each entry will be determined from the average score.

Level of Independence

How independent is the student in demonstrating knowledge and skills addressed in the MAP-A? See the rubric in Table 3 below. Table 4 describes how each level of this rubric dimension is scored.

Table 3: Level of Independence Rubric

	Score Point				
	4	**3**	**2**	**1**	**No Score**
Level of Independence	Student requires minimal verbal, visual, and/or physical assistance to demonstrate skills and concepts. **76–100% Independence**	Student requires some verbal, visual, and/or physical assistance to demonstrate skills and concepts. **51–75% Independence**	Student requires frequent verbal, visual, and/or physical assistance to demonstrate skills and concepts. **26–50% Independence**	Student requires extensive verbal, visual, and/or physical assistance to demonstrate skills and concepts. **0–25% Independence**	Entry contains insufficient information to determine a score.

Table 4: Description of Scoring Rubric Dimensions for Level of Independence

Score Point	Description
4	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 76–100% of the time across the two data collection periods. The student required minimal (0–24% of the time) cueing, prompting, or assistance.
3	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 51–75% of the time across the two data collection periods. The student required some (25–49% of the time) cueing, prompting, or assistance.
2	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 26–50% of the time across the two data collection periods. The student required frequent (50–74% of the time) cueing, prompting, or assistance.
1	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 0–25% of the time across the two data collection periods. The student required extensive (75–100% of the time) cueing, prompting, or assistance.
NS	Insufficient information was given. The Entry/Data Summary Sheet was incomplete. Each API must have six data points (three per collection period) as indicated on the Entry/Data Summary Sheet.

All data must be reported as a percentage score on the Entry/Data Summary Sheet. More information is provided in the *Instructor's Guide and Implementation Manual* regarding data collection strategies. The teacher averages the two data periods. The student's level of independence for each API entry will be determined from the average score.

For the purpose of determining level of independence on the MAP-A, percentages are assigned to work that students perform independently. Different levels of assistance may be necessary for the student to perform a skill or complete a task and would be considered task specific assistance.

Cues, prompts, or assistance needed to redirect attention to or focus on a task is considered non-task specific assistance and would not affect a student's independence on the task.

A student who participates in an activity without a task specific prompt from the teacher scores 100% level of independence. Examples of task specific assistance are outlined in Table 5.

Table 5: Examples of Task Specific Assistance

Type of Assistance	Description
Gestural Prompt	Natural prompts of a nonverbal nature that tell a student what to do (e.g., hand movement, pointing, facial expressions). Gestural prompts are easy to use and do not involve direct physical contact.
Verbal Prompt	Spoken statements that help students respond correctly. Verbal prompts guide students on **how** to respond rather than tell them that they are to respond (e.g., how to do all or part of the skill); give them a rule to use; and/or provide hints.
Model	Demonstrating a desired behavior in order to prompt an imitative response.
Partial Physical Prompt	Requires that teachers physically guide the students through the target skill/task, but at a less intrusive level (e.g., hand over wrist, elbow, shoulder).
Full Physical Prompt	Requires that the teacher place his/her hand on top of student's hand and physically guide the student through the target behavior/task (hand over hand). The teacher, rather than the student, exerts the effort, which minimizes errors. Full physical prompts are the most intrusive type of prompt.

The cues or prompts in Table 6 typically refer to non-task specific assistance. The use of these types of redirection or focus on the task **should not be considered levels of assistance when determining level of independence**.

Table 6: Forms of Non-Task Specific Assistance

Form of Assistance	Description
Environmental Prompt	Naturally occurring cue used by teachers to alert all students to an appropriate behavior (e.g., the bell ringing to signal it is time to go to lunch, flipping the light switch to get everyone's attention).
Redirection	Repeating directions, rules, etc. when needed to help a student get back on task.
Focus	Encouraging the student to stay with the task, or to keep going.
Minimum Physical Prompt	Requires that teachers lightly touch the student but do not control their movements. The light touch is used to redirect or focus the student on the task.

Connection to the Standards

Do the submitted Student Work Records provide evidence of the application of the Alternate Performance Indicator in standards-based activities? See the rubric in Table 7. Table 8 describes how each level of this rubric dimension is scored.

Table 7: Connection to the Standards Rubric

	Score Points			
	3	**2**	**1**	**No Score**
Connection to the Standards	There is evidence of applying the Alternate Performance Indicator/s in two standards-based activities, one in each of two collection periods.	There is evidence of applying the Alternate Performance Indicator/s in at least one standards-based activity, one out of two collection periods.	There is some evidence of a connection to the Alternate Performance Indicator/s.	There is insufficient evidence of a connection to the Alternate Performance Indicator/s.

Table 8: Description of Scoring Rubric Dimensions for Connection to the Standards

Score Point	Description
3	The Student Work Records provide documentation of the application of the API in two standards-based activities, one per collection period.
2	The Student Work Records provide documentation of the application of the API in one standards-based activity (one out of two collection periods).
1	The Student Work Records provide documentation of the API but do not include application of the API in standards-based activities.
NS	Insufficient information was given. There were no work samples included for the API or the work samples submitted were not connected to the API.

Following are guidelines for submitting work to ensure sufficient evidence is provided for the application of the APIs:

1. A Student Work Record must be submitted for each collection period.
2. Student Work Records must be dated. Each date must match a corresponding date on the Entry/Data Summary Sheet.
3. If tangible student work is submitted without a Student Work Record attached, the work will not be scored for Connection to the Standards.
4. If the Student Work Record does not have the student interaction and/or evaluation portions completed, the work will not be scored for Connection to the Standards.

Application in Mathematics, Communication Arts, and Science

Standards-based activities are more likely to show evidence of instruction toward the application of state standards. Even though entries may connect to the API, if Student Work Records do not show application of the skill, the score on the assessment will be affected.

When deciding if an activity is an example of acquisition or application, consider the answer to the question, "What is the purpose of the activity?" If the purpose of the activity is simply to practice something, it is most likely an example of acquisition. Application activities require the student to apply skills. In other words, the student must use a skill to complete an activity for a purpose other than practicing the skill. The application activity often results in some type of end product.

Table 9 compares acquisition activities (skill and drill) to standards-based application activities.

Table 9: Activities Demonstrating Acquisition versus Application

Acquisition	Application through Standards-based Activities
Key word drill and skill with flashcards	Key words highlighted in a weekly reader with student identifying highlighted words
Copy spelling words	Correct use of spelling words in a journal entry
Track switch activation	Track switch activation to turn a page in a storybook
Flashcard practice of math facts	Application of math facts to determine lunch count
Flashcard practice of organism parts	Identifying organism parts to make qualitative observations by participating in a class game of Organism Bingo
Increase duration of attending	Increase duration of attending to a story to identify the main idea
Sort ingredients by attribute	Sort ingredients of a mixture to identify/communicate their observation of what makes up the mixture
Sort coins into piles of like coins	Sort coins needed to make a purchase (e.g., quarters for a juice from the vending machine)
Copy science words	Correct use of science terms in a journal entry to describe an investigation.
Track switch activation	Track switch activation to turn a page in a science article, magazine, and/or textbook to participate in class exploration of life cycles.
Sort genetic information into piles of like genetic information	Sort genetic information of parents and off-spring to determine what information is passed along from the parents to new off-spring (e.g., humans, and/or animals) to communicate the results of their investigation.

Appendix G: Scorer Training Materials

MAP-A SCORER TRAINING

Assessment Resource Center
Spring 2014

Topics

- What is the MAP-A?
- Students Assessed with MAP-A
- Design of the MAP-A
- Scoring Dimensions
- Alternate Performance Indicators (API's)
- Scoring Procedures
  - Making Scoring Decisions

What is the MAP-A?

What is the MAP-A?

- Missouri Assessment Program
  - Mathematics, Communication Arts, and Science
  - Links Missouri's Show-Me Standards, Curriculum, Instruction, and Assessment
  - Alternate assessment provides opportunities for all Missouri students
- No Child Left Behind
  - All students participate in state tests
  - Required by federal law

Who are MAP-A Students?

- Severe cognitive disabilities
- Do not keep pace with peers
- Educational focus centers on essential skills
- IEP team recommends alternate assessment
- Excessive absences, visual or auditory disabilities, social, cultural, language, or economic differences alone don't call for MAP-A

MAP-A Forms

Table of Contents Checklist

Table of Contents Checklist

Elementary

Student:	School Year:	Grade: 3 4

(Organize MAP-A in the following manner)

☐ Table of Contents Checklist
☐ Validation Form

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Communication Arts Strand 1: Reading (RD/RP)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Communication Arts Strand 2: Writing (WC)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Mathematics Strand 1: Numbers & Operations (NO)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #1
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Mathematics Strand 2: Algebraic Relationships and/or Geometric & Spatial Relationships (AR/GS)
Alternate Performance Indicator #2
☐ Entry/Data Summary Sheet
☐ Collection Period 1 Student Work Record
☐ Collection Period 2 Student Work Record

Validation Form

Validation Form

Student:_____ **Grade:**_____
District & School of Attendance:_____
This form provides documentation of the individuals who administered, contributed to and/or reviewed this MAP-A.

Individual responsible for MAP-A administration (typically the student's classroom teacher):
Name:_____
Position: _____

Individuals who contributed to this MAP-A:
Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

Name: _____
Position: _____
Contribution: _____

OPTIONAL- Use this space to provide information regarding the student's mode of communication.

Please obtain administrator's (principal, assistant principal, or special education director) signature prior to submission.

_____
Signature Date

_____
Print Name

Mode of Communication

OPTIONAL - Use this space to provide information regarding the student's mode of communication.

Grant is an eleven-year-old student with an educational diagnosis of autism that affects his ability to access the academic curriculum in the following ways: difficulty with task focus, adapting to change and effectively communicating his wants, needs and ideas. Grant responds best to a highly structured environment, predictable routine, visual support strategies, direct instruction of target skills with opportunity to generalize those skills.

Grant's oral communication is significantly limited. His spontaneous language typically consists of single words (including immediate echolalia) and occasional short, telegraphic phrases. Grant tends to be prompt dependent, waiting for an initial sound cue to respond verbally.

OPTIONAL- Use this space to provide information regarding the student's mode of communication.

Dane is non-verbal. He uses a wrist talker to say a variety of phrases and words. He also uses two different communication boards in the classroom that are not as portable.

Dane expresses his displeasure with grunts and whines quite often. He laughs a lot when he is enjoying activities.

Entry Data Summary Sheet

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name:				**Grade:**		
Strand:	**Big Idea:**			**Concept:**		
API:						
Has this student been assessed on this API in previous years? Yes ☐ No ☐						
	Collection Period 1 January 6 – January 31			**Collection Period 2 February 3 – February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date						
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %						
Independence %						
Average % for Collection Period	Accuracy:			Accuracy:		
	Independence:			Independence:		

	API Entry Average
Level of Accuracy	
Level of Independence	

Justification Form

API Duplication Justification Form
Mathematics/Communication Arts

Student Name:		**Grade:**
Strand:	**Big Idea:**	**Concept:**
API:		

You indicated that this student has been assessed on this API in previous years.

The instructional decision to duplicate an API from a prior year's MAP-A assessment must be justified on this form. The justification must be included with the MAP-A submission.

Justification/Rationale: (Supply specific justification for duplicate use of the API.)

Plan of Student Progress: (Supply specific plans in place to assure student growth across API's content.)

Student Work Record

Student Work Record
Mathematics/Communication Arts/Science
Attach student work sample if appropriate.

Student Name:		**Grade:**	**Date:**
Strand:	**Big Idea:**		**Concept:**
API:			

Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

Evaluation of Student's Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence**.
Level of Accuracy _____%	**Level of Independence** _____%

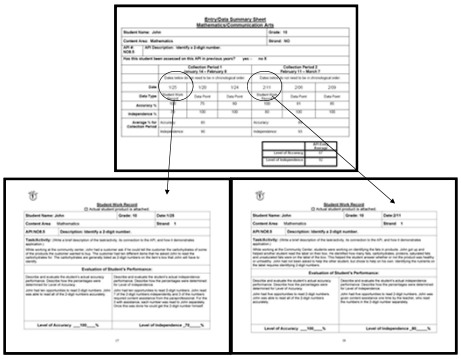
MAP-A Design

- MAP-A Entry
  - Building block of the MAP-A assessment
  - Demonstration of what a student knows and can do
  - Teachers observe and assess a student's work and collect evidence during to distinct collection periods.
  - Student Work Record
    - Basic component
    - Description of assessment activity
    - Evaluation of student participation

MAP-A Design

- MAP-A Entry
  - 2 Student Work Records
  - 1 Entry Data Summary Sheet

MAP-A Entry



Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: John				**Grade: 10**		
Strand: NO	**Big Idea: Compute fluently and make reasonable estimates**			**Concept: Describe or represent mental strategies**		
API: NO 8.5 Identify a 2-digit number.						
Has this student been assessed on this API in previous years? Yes □ No □						
	Collection Period 1 January 6 – January 31			**Collection Period 2 February 3 – February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date	1/25/2014	1/20/2014	1/30/2014	2/7/2014	2/9/2014	2/28/2014
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %	100	75	80	100	81	85
Independence %	70	100	100	80	100	100
Average % for Collection Period	Accuracy: 85			Accuracy: 89		
	Independence: 90			Independence: 93		

	API Entry Average
Level of Accuracy	87
Level of Independence	92

Student Work Record
Mathematics/Communication Arts /Science
Attach student work sample if appropriate

Student Name: John	**Grade:** 10	**Date:** 1/25/2014
Strand: NO	**Big Idea:** Compute fluently and make reasonable estimates	**Concept:** Describe or represent mental strategies

Stem: Recognize numerals.

API: NO8.5 Identify a 2-digit number.

Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

While working at the community center, John had a customer ask if he could tell the customer the carbohydrates of some of the products the customer wanted to buy. The customer had ten different items that he asked John to read the carbohydrates for. The carbohydrates are generally listed as 2-digit numbers on the item's box that John will have to identify.

Evaluation of Student's Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**. John had ten opportunities to read 2-digit numbers. John was able to read all of the 2-digit numbers accurately.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence**. John had ten opportunities to read 2-digit numbers. John read 7 of the 2-digit numbers independently and 3 of the numbers required content assistance from the paraprofessional. For the three with assistance, each number was read to John separately. Once this was done he could get the 2-digit number himself.
Level of Accuracy 100%	**Level of Independence** 70%

MAP-A Design

- How many entries in a MAP-A?
  - 4 Science (SCI)—4APIs (Grades 5, 8, and 11)
  - 4 Mathematics (MA)—4 APIs
  - 4 Communication Arts (CA)—4 APIs

The MAP-A consists of data and supporting evidence collected by an instructional team. It provides information on a student's knowledge and skills in Mathematics, Communication Arts and Science. The MAP-A assesses accuracy, independence, and connection to the standards on four Alternate Performance Indicators (APIs) each in Mathematics, Communication Arts, and Science.

How to Score a MAP-A Entry

- Does the Activity Connect to the API?
- Does the Activity Demonstrate Application?
- Verify the Accuracy Score
- Verify the Independence Score
- Refigure the Entry Averages if Necessary
- Record the Score Information

What is an API?

- Alternate Performance Indicators (APIs)
  - Indicators that are used in demonstrating that a student has knowledge of a specific subject or can perform a specific task.

Strand 1: Numbers and Operations

Big Idea	Concept	Alternate Performance Indicators (APIs)
3 Compute fluently and make reasonable estimates	A Describe or represent mental strategies	Recognize numerals. **NO8.1.** Represent a number or a quantity (e.g., tap, draw objects or tallies). **NO8.2.** Discriminate between numerals and other printed symbols. **NO8.3.** Identify/recognize numerals 1 through 10 (e.g., point out a 5, given a choice of numerals). **NO8.4.** Communicate numerals 1 through 9 (e.g., write, use number cards, communication board). **NO8.5. Identify a 2-digit number.** **NO8.6. Communicate 2-digit numbers.** **NO8.9.**

Connecting the Activity to the API

- Is the API appropriate to the grade span?
- Does the activity described connect to the API?

Student Work Record
Mathematics/Communication Arts /Science
Attach student work sample if appropriate

Student Name: John	**Grade:** 10	**Date:** 1/25/2014
Strand: NO	**Big Idea:** Compute fluently and make reasonable estimates	**Concept:** Describe or represent mental strategies

Stem: Recognize numerals.

API: NO8.5 Identify a 2-digit number.

Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

While working at the community center, John had a customer ask if he could tell the customer the carbohydrates of some of the products the customer wanted to buy. The customer had ten different items that he asked John to read the carbohydrates for. The carbohydrates are generally listed as 2-digit numbers on the item's box that John will have to identify.

Student Work Record
Mathematics/Communication Arts /Science
Attach student work sample if appropriate

udent Name: John	**Grade:** 10	**Date:** 1/25/2014
rand: NO	**Big Idea:** Compute fluently and make reasonable estimates	**Concept:** Describe or represent mental strategies

em: Recognize numerals.

PI: NO8.5 Identify a 2-digit number.

sk/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

ile working at the community center, John had a customer ask if he could tell the customer the carbohydrates of some of the products the tomer wanted to buy. The customer had ten different items that he asked John to read the carbohydrates for. The carbohydrates are erally listed as 2-digit numbers on the item's box that John will have to identify.

Evaluation of Student's Performance:

scribe and evaluate the student's actual accuracy performance. scribe how the percentages were determined for **Level of curacy**. n had ten opportunities to read 2-digit numbers. John was able to d all of the 2-digit numbers accurately.	Describe and evaluate the student's actual independence performanc Describe how the percentages were determined for **Level of Independence**. John had ten opportunities to read 2-digit numbers. John read 7 of th 2-digit numbers independently and 3 of the numbers required conte assistance from the paraprofessional. For the three with assistance, each number was read to John separately. Once this was done he co get the 2-digit number himself.
Level of Accuracy 100%	**Level of Independence** 70%

Connecting the Activity to the API

Strand 1: Numbers and Operations

Big Idea	Concept	Alternate Performance Indicators (APIs)
3 Compute fluently and make reasonable estimates	A Describe or represent mental strategies	Recognize numerals. **NO8.1.** Represent a number or a quantity (e.g., tap, draw objects or tallies). **NO8.2.** Discriminate between numerals and other printed symbols. **NO8.3.** Identify/recognize numerals 1 through 10 (e.g., point out a 5, given a choice of numerals). **NO8.4.** Communicate numerals 1 through 9 (e.g., write, use number cards, communication board). **NO8.5. Identify a 2-digit number.** **NO8.6. Communicate 2-digit numbers.** **NO8.9.**

Connecting the Activity to the API

- What is the activity?
- What skills does it assess?

Student Name: John	**Grade:** 10	**Date:** 1/25/2013
Strand: NO	**Big Idea:** Compute fluently and make reasonable estimates	**Concept:** Describe or represent mental strategies

Stem: Recognize numerals.

API: NO8.5 Identify a 2-digit number.

Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

While working at the community center, John had a customer ask if he could tell the customer the carbohydrates of some of the products the customer wanted to buy. The customer had ten different items that he asked John to read the carbohydrates for. The carbohydrates are generally listed as 2-digit numbers on the item's box that John will have to identify.

Kayla

Student Work Record
Mathematics/Communication Arts/Science
Attach student work sample if appropriate.

Student Name: Kayla Gibson		**Grade:** 3 **Date:** 1/16/2013
Strand: RP 2.2	**Big Idea:** Develop and apply skills and strategies to the reading process	**Concept:** During Reading
API: Predict and Check		
Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.) We are stating a new story in our reading books. Before reading the story, Kayla will do a picture walk through the story. She will go through the book and look at the pictures and discuss what she thinks will happen in the story. She will write her predictions on a piece of paper. After making her predictions, we will read the story together then she will check her predictions		
Evaluation of Student's Performance:		
Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**. Before reading the story, Kayla made her predictions about what she thought would happen at the beginning, middle and end. After reading, she checked her predictions to see if she was correct. She checked two out of three predictions correctly for an accuracy level of 67%		Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence**. She was able to make and check all of her predictions with no prompts for an independence level of 100%
Level of Accuracy 67%		**Level of Independence** 100%

Big Idea	Concept	Alternate Performance Indicators (APIs)
1 Develop and apply skills and strategies to the reading process	E Vocabulary	**RD5.6. Use context clues to predict words.** **RD5.7. Use a basic dictionary and glossary (may be picture dictionary or personal dictionary).** **RD5.8. Demonstrate use of common inflectional endings (e.g., "s" for plural nouns).**
	F Pre-Reading	Develop and apply pre-reading strategies to aid comprehension. **RP1.1.** Attend to pictures in text. **RP1.2.** Preview text and/or pictures. **RP1.3.** Demonstrate understanding that pictures/symbols/objects/actions have meaning. **RP1.4.** Access prior knowledge. (What do I know? [K-W-L] Informational passages only.) **RP1.5.** Predict what storybook or article may be about, based on pictures/symbols/objects/actions, **with evidence**. **RP1.7. Set a purpose for reading. (What do I want to know? [K-W-L] Informational passages only.)**
	G During Reading	During reading or read-alouds, develop and utilize strategies. **RP2.1.** Attend to the reading of the story and to the pictures. **RP2.2.** Predict and check. **RP2.3.** Check content and process using cueing systems. **a.** Meaning: Does the word make sense? **b.** Structure: Does the word sound right? **c.** Visual: Does the word look right? **RP2.4. Self-question: who, what, where, when, why, and how?** **RP2.6. Visualize. (e.g., What does something important in the story or article, not depicted in illustrations, look like?)**

Terms in Mathematics, Communication Arts and Science APIs

- **AND, OR, AND/OR**
- The terms "and," "or," and "and/or" used in a list of choices in an API require that any one of the items in the list must be addressed in order for the activity to connect to the API.
- The abbreviation "e.g." (Lat.: *exempli gratia*) means "for example" and is used when a list includes one or more examples of the concept but other examples (perhaps many) also exist.
- AR3.1c. Sort objects into groups with similar traits (e.g., sort pattern blocks by size, color and shape).

Terms in Mathematics, Communication Arts and Science APIs

- The abbreviation "i.e." (Lat.: *id est*) means "that is to say" and is used when what follows is an all-inclusive list of possibilities (may be one or many) demonstrating the concept under consideration.
- IN1.3. Identify an appropriate, science-related question (i.e., teacher generates a list of science-related questions and a student chooses one).

Glossary

- Glossary of terms found in the Science, Mathematics, and Communication Arts APIs begin on pg. 13 of the MAP-A Scoring Manual.

- **Abiotic:** pertaining to the non-living part of the environment.
- **Adaptation:** the development of physical and behavioral characteristics that allow organisms to survive and reproduce in their habitats.
- **Asexual reproduction:** reproduction that does not include the union of sex cells and in which one parent produces offspring that are genetically identical to the parent.
- **Atmosphere (air):** consists of all the gaseous matter enveloping and surrounding Earth.
- **Balance:** an instrument used to measure the mass of an object.
- **Biodiversity:** the number and variety of organisms found in a particular habitat or ecosystem.
- **Biotic:** pertaining to the living part of the environment.
- **Carnivores:** meat eaters.
- **Cell:** the basic building block for all organisms.

Does the activity connect to the API?

You Decide

How to Score a MAP-A Entry

- Does the Activity Connect to the API?
- Does the Activity Demonstrate Application?
- Verify the Accuracy Score
- Verify the Independence Score
- Refigure the Entry Averages if Necessary
- Record the Score Information

Acquisition or Application?

Acquisition	Application through Standards-based Activities
Copy spelling words	Correct use of spelling words in a journal entry
Flashcard practice of math facts	Application of math facts to determine lunch count

Acquisition or Application?

Acquisition	Application through Standards-based Activities
Flashcard practice of organism parts	Identifying organism parts to participate in a class game of Organism Bingo
Sort coins into piles of like coins	Sort coins needed to make a purchase (e.g., quarters for a juice from the vending machine)

Acquisition or Application?

Acquisition	Application through Standards-based Activities
Copy science words	Correct use of science terms in a journal entry to describe an investigation.

Application

- What is the purpose of the activity?
  - Practice of the skill in the API
  - Some purpose other than practice

Student Work Record

Mathematics/Communication Arts /Science

Attach student work sample if appropriate

udent Name: John	**Grade:** 10	**Date:** 1/25/2014
rand: NO	**Big Idea:** Compute fluently and make reasonable estimates	**Concept:** Describe or represent ment strategies

tem: Recognize numerals.

PI: NO8.5 Identify a 2-digit number.

ask/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

hile working at the community center, John had a customer ask if he could tell the customer the carbohydrates of some of the products th stomer wanted to buy. The customer had ten different items that he asked John to read the carbohydrates for. The carbohydrates are nerally listed as 2-digit numbers on the item's box that John will have to identify.

Application

Student Work Record

☒ Actual student product is attached.

Student Name: Heather Smith		**Grade:** 7	**Date:** 2/02/2007
Content Area: Mathematics			**Strand:** (NO)
API: NO4.5	**Description:** Identify odd and even numbers.		

Task/Activity Description: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

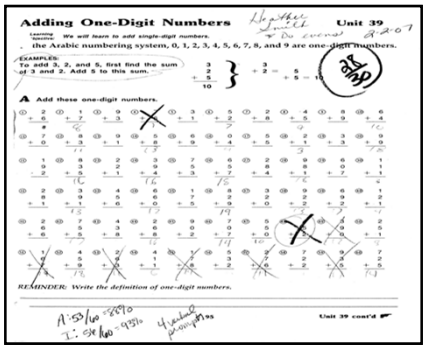
Heather was assigned a worksheet in Math class to work on. She was assigned only the evens to work on. This demonstrates an application because she had to apply the skill of identifying even numbers in order to do the correct problems.

Evaluation of Studen't Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for Level of Accuracy.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for Level of Independence.
There were a total of 60 problems on the worksheet. I included them all because I wanted to deduct points if she did any other problem but the evens. She did not do number 48 which is even, but did do numbers 49, 51, 53, 55, 57, and 59 which are odd. This gave her an accuracy level of 53 out of 60 or 88%.	Of the 60 problems on the page, Heather only needed 4 verbal prompts. This gave her an independence level of 56 out of 60 or 93%.
Level of Accuracy 88 %	**Level of Independence** 93 %

2006-2007 MAP-A ProFile **MA Page:** 7

Application



Adding One-Digit Numbers — Unit 39

Learning Goal: We will learn to add single-digit numbers.

Remember the Arabic numbering system, 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are one-digit numbers.

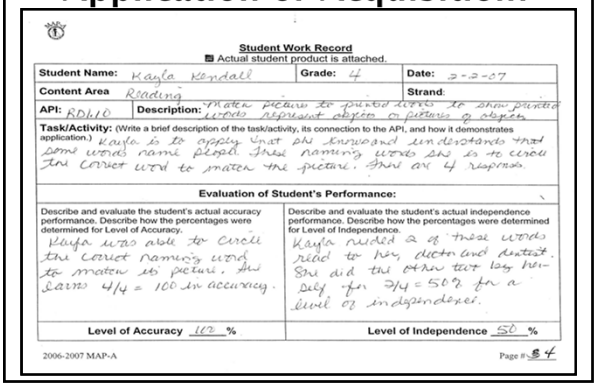
EXAMPLES: To add 3, 2, and 5, first find the sum of 3 and 2. Add 5 to this sum.

A Add these one-digit numbers.

REMINDER: Write the definition of one-digit numbers.

Unit 39 cont'd

Application or Acquisition?



Student Work Record

Actual student product is attached.

Student Name: Kayla Kendall	Grade: 4	Date: 2-2-07
Content Area Reading		Strand:
API: RDL10	Description: Match picture to printed words to show printed words represent objects or pictures of objects	

Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.) Kayla is to apply that she knows and understands that some words name people. These naming words she is to know the correct word to match the picture. There are 4 responses.

Evaluation of Student's Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for Level of Accuracy.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for Level of Independence.
Kayla was able to circle the correct naming word to match the picture. She earns 4/4 = 100 in accuracy.	Kayla needed 2 of these words read to her, doctor and dentist. She did the other two by herself for 2/4 = 50% for a level of independence.
Level of Accuracy 100 %	Level of Independence 50 %

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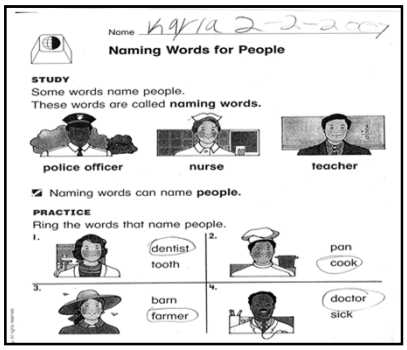
Application or Acquisition?



Name Kayla 2-2-2007

Naming Words for People

STUDY

Some words name people.

These words are called **naming words.**

police officer — nurse — teacher

Naming words can name **people.**

PRACTICE

Ring the words that name people.

1. dentist / tooth
2. pan / cook
3. barn / farmer
4. doctor / sick

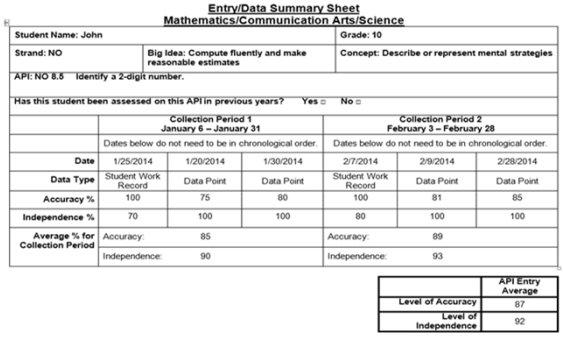
Application or Acquisition?

You Decide

How to Score a MAP-A Entry

- Does the Activity Connect to the API?
- Does the Activity Demonstrate Application?
- Verify the Accuracy Score
- Verify the Independence Score
- Refigure the Entry Averages if Necessary
- Record the Score Information

Level of Accuracy



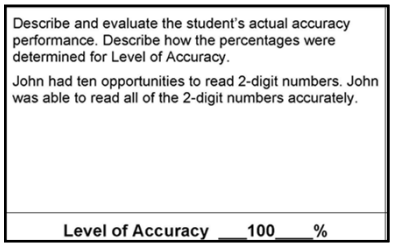
Entry/Data Summary Sheet

Mathematics/Communication Arts/Science

Student Name: John			Grade: 10		
Strand: NO	Big Idea: Compute fluently and make reasonable estimates		Concept: Describe or represent mental strategies		
API: NO 8.5 Identify a 2-digit number.					
Has this student been assessed on this API in previous years? Yes ☐ No ☐					
	Collection Period 1 January 6 – January 31			Collection Period 2 February 3 – February 28	
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.	
Date	1/25/2014	1/20/2014	1/30/2014	2/7/2014	2/9/2014	2/28/2014
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %	100	75	80	100	81	85
Independence %	70	100	100	80	100	100
Average % for Collection Period	Accuracy:	85		Accuracy:	89	
	Independence:	90		Independence:	93	

	API Entry Average
Level of Accuracy	87
Level of Independence	92

Level of Accuracy



Accuracy Practice

Bob only missed three addition problems today. His level of accuracy was 80%.

Accuracy Practice

No

Accuracy Practice

Keith accurately identified two digit numbers today 6/10 times. Level of accuracy 40%

Accuracy Practice

No

How to Score a MAP-A Entry

- Does the Activity Connect to the API?
- Does the Activity Demonstrate Application?
- Verify the Accuracy Score
- Verify the Independence Score
- Refigure the Entry Averages if Necessary
- Record the Score Information

Level of Independence

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: John				**Grade: 10**		
Strand: NO	**Big Idea: Compute fluently and make reasonable estimates**			**Concept: Describe or represent mental strategies**		
API: NO 8.5 Identify a 2-digit number.						
Has this student been assessed on this API in previous years? Yes ☐ No ☐						
	Collection Period 1 January 7 – February 1			**Collection Period 2 February 4 – March 1**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date	1/25/2013	1/20/2013	1/30/2013	2/7/2013	2/9/2013	2/28/2013
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %	100	75	80	100	81	85
Independence %	70	100	100	80	100	100
Average % for Collection Period	Accuracy:	85		Accuracy:	89	
	Independence:	90		Independence:	93	

	API Entry Average
Level of Accuracy	87
Level of Independence	92

Level of Independence

Task Specific Assistance - Pg. 3

Type of Assistance	Description
Gestural Prompt	Natural prompts of a nonverbal nature that tell a student what to do (e.g., hand movement, pointing, facial expressions). Gestural prompts are easy to use and do not involve direct physical contact.
Verbal Prompt	Spoken statements that help students respond correctly. Verbal prompts guide students on how to respond rather than tell them that they are to respond (e.g., how to do all or part of the skill); give them a rule to use; and/or provide hints.
Model	Demonstrating a desired behavior in order to prompt an imitative response.
Partial Physical Prompt	Requires that teachers physically guide the students through the target skill/task, but at a less intrusive level (e.g., hand over wrist, elbow, shoulder).
Full Physical Prompt	Requires that the teacher place his/her hand on top of student's hand and physically guide the student through the target behavior/task (hand over hand). The teacher, rather than the student, exerts the effort, which minimizes errors. Full physical prompts are the most intrusive type of prompt.

Level of Independence

- Non-Task Specific Prompts

Form of Assistance	Description
Environmental Prompt	Naturally occurring cue used by teachers to alert all students to an appropriate behavior (e.g., the bell ringing to signal it is time to go to lunch, flipping the light switch to get everyone's attention).
Redirection	Repeating directions, rules, etc. when needed to help a student get back on task.
Focus	Encouraging the student to stay with the task, or to keep going.
Minimum Physical Prompt	Requires that teachers lightly touch the student but do not control their movements. The light touch is used to redirect or focus the student on the task.

- The use of these types of redirection or focus on the task should not be considered when determining Level of Independence except when the API assessed includes "Attend to…" language.

Level of Independence

Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for Level of Independence.

John had ten opportunities to read 2-digit numbers. John read 7 of the 2-digit numbers independently and 3 of the numbers required content assistance from the paraprofessional. For the 3 with assistance, each number was read to John separately. Once this was done he could get the 2-digit number himself.

Level of Independence _70_____%

Independence Practice

David completed the activity completely independently. Level of independence 100%.

Independence Practice

Yes

Independence Practice

Michael needed only minimal task specific assistance while reading his story book today. His level of independence was 100%

Independence Practice

No

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: Cody				**Grade:**11		
Strand: Communication Arts - WP	**Big Idea:** Write effectively in various forms and types of writing			**Concept:** Audience and Purpose		
Stem: Develop an awareness of audience and purpose in composing text.						
API: WP5.4 Write simple friendly letters, messages, and directions for making or doing something, considering a given audience.						
Has this student been assessed on this API in previous years? ☐ **Yes** ☑ **No**						
	Collection Period 1 January 6- January 31			**Collection Period 2 February 3 - February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order		
Date	01/12/2014	01/24/2014	02/01/2014	02/09/2014	02/18/2014	02/21/20
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Poi
Accuracy %	86%	100%	100%	100%	100%	100%
Independence %	71%	100%	100%	40%	100%	100%
Average % for Collection Period	Accuracy: 95%			Accuracy: 100%		
	Independence: 90%			Independence: 80%		

	API Ave
Level of Accuracy	9
Level of Independence	8

Student Work Record
Mathematics/Communication Arts/Science
Attach student work sample if appropriate

Student Name: Cody		**Grade:** 11	**Date:** 01/12/2014
Strand: WP	**Big Idea:** Write effectively in various forms and types of writing	**Concept:** Audience and Purpose	
Stem: Develop an awareness of audience and purpose in composing text.			
API: WP5.4 Write simple friendly letters, messages, and directions for making or doing something, considering a given audience.			
Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates applicatio Cody will write the grocery list for a recipe that will be prepared for a snack by the life skills class.			
Evaluation of Student's Performance:			
Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**. Cody wrote the grocery list to prepare waffles. He found the ingredients in the classroom and set them out for the life skills class to prepare. He found six of the seven ingredients for 86% accuracy.		Describe and evaluate the student's actual independence performance. Describe how the percentages were determir for **Level of Independence**. Cody needed to be prompted to find two of the seven ingredients for independence of 71%	
Level of Accuracy 86%		**Level of Independence** 71%	

Student Work Record
Mathematics/Communication Arts/Science
Attach student work sample if appropriate

Student Name: Cody		**Grade:** 11	**Date:** 02/09/2014
Strand: WP	**BigIdea:** Write effectively in various forms and types of writing	**Concept:** Audience and Purpose	
Stem: Develop an awareness of audience and purpose in composing text.			
API: WP5.4 Write simple friendly letters, messages, and directions for making or doing something, considering a given audience.			
Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates applicatio Cody will write the grocery list for a recipe that will be prepared for a snack by the life skills class.			
Evaluation of Student's Performance:			
Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**. Cody wrote a grocery list consisting of the five items the life skills class would need to make chocolate chip cookies. Cody accurately wrote the list of ingredients for 100% accuracy.		Describe and evaluate the student's actual independence performance. Describe how the percentages were determin for **Level of Independence**. Cody needed task specific prompts to write two of the five items. Cody's level of independence 40%	
Level of Accuracy 100%		**Level of Independence** 40%	

How to Score a MAP-A Entry

- Does the Activity Connect to the API?
- Does the Activity Demonstrate Application?
- Verify the Accuracy Score
- Verify the Independence Score
- Refigure the Entry Averages if Necessary
- Record the Score Information

Cody
Collection Period 1

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence.**
Cody wrote the grocery list to prepare waffles. He found the ingredients in the classroom and set them out for the life skills class to prepare. He found six of the seven ingredients for 86% accuracy.	Cody needed to be prompted to find two of the seven ingredients for independence of 71%
Level of Accuracy 86%	**Level of Independence** 71%

Cody
Collection Period 2

Evaluation of Student's Performance:	
Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence.**
Cody wrote a grocery list consisting of the five items the life skills class would need to make chocolate chip cookies. Cody accurately wrote the list of ingredients for 100% accuarcy.	Cody needed task specific prompts to write two of the five items. Cody's level of independence 40%
Level of Accuracy 100%	**Level of Independence** 40%

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: Cody					**Grade:**11	
Strand: Communication Arts - WP	**Big Idea:** Write effectively in various forms and types of writing				**Concept:** Audience and Purpose	
Stem: Develop an awareness of audience and purpose in composing text.						
API: WP5.4 Write simple friendly letters, messages, and directions for making or doing something, considering a given audience.						
Has this student been assessed on this API in previous years? ☐ Yes ☑ No						
	Collection Period 1 January 6- January 31			**Collection Period 2 February 3 - February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date	01/12/2014	01/24/2014	02/01/2014	02/09/2014	02/18/2014	02/21/2014
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %	86%	100%	100%	100%	100%	100%
Independence %	71%	100%	100%	40%	100%	100%
Average % for Collection Period	Accuracy: 95%			Accuracy: 100%		
	Independence: 90%			Independence: 80%		

	API Entry Average
Level of Accuracy	98%
Level of Independence	85%

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: Cody					**Grade:**11	
Strand: Communication Arts - WP	**Big Idea:** Write effectively in various forms and types of writing				**Concept:** Audience and Purpos	
Stem: Develop an awareness of audience and purpose in composing text.						
API: WP5.4 Write simple friendly letters, messages, and directions for making or doing something, considering a given audience.						
Has this student been assessed on this API in previous years? ☐ Yes ☑ No						
	Collection Period 1 January 6- January 31			**Collection Period 2 February 3 - February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological orde		
Date	01/12/2014	01/24/2014	02/03/2014	02/09/2014	02/18/2014	03/02/2
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Poi
Accuracy %	0%	100%	100%	100%	100%	100%
Independence %	0%	100%	100%	60%	100%	100%
Average % for Collection Period	Accuracy: 95%			Accuracy: 100%		
	Independence: 90%			Independence: 80%		

	API Av
Level of Accuracy	9
Level of Independence	8

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: Cody					**Grade:**11	
Strand: Communication Arts - WP	**Big Idea:** Write effectively in various forms and types of writing				**Concept:** Audience and Purpos	
Stem: Develop an awareness of audience and purpose in composing text.						
API: WP5.4 Write simple friendly letters, messages, and directions for making or doing something, considering a given audience.						
Has this student been assessed on this API in previous years? ☐ Yes ☑ No						
	Collection Period 1 January 6- January 31			**Collection Period 2 February 3 - February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order		
Date	01/12/2014	01/24/2014	02/03/2014	02/09/2014	02/18/2014	03/02/2
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Poi
Accuracy %	0%	100%	100%	100%	100%	100%
Independence %	0%	100%	100%	60%	100%	100%
Average % for Collection Period	Accuracy: 67%			Accuracy: 100%		
	Independence: 67%			Independence: 87%		

	API
Level of Accuracy	
Level of Independence	

How to Score a MAP-A Entry

- Does the Activity Connect to the API?
- Does the Activity Demonstrate Application?
- Verify the Accuracy Score
- Verify the Independence Score
- Refigure the Entry Averages if Necessary
- Record the Score Information

Scoring Guide

Preliminary Scoring Questions & Procedures

- Does the MAP-A binder have a barcoded, student-specific cover sheet?
- Do you know the student, school, or teacher?

CODY

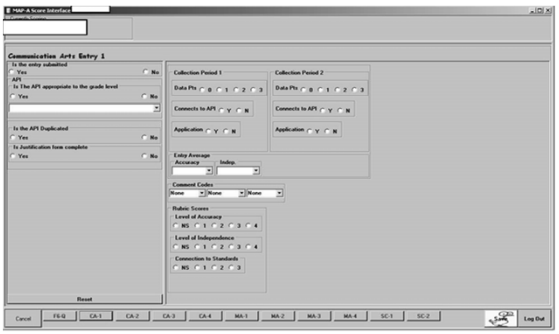
Entering the Score Information for Cody

Scoring Guide

Preliminary Scoring Questions & Procedures

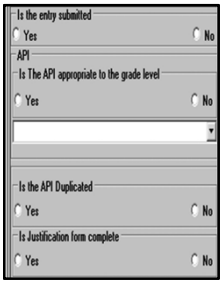
- Does the grade level on score sheet match the grade level in the binder?
- Is the Table of Contents Checklist submitted?
- Is the Validation Form submitted?
- Is the Validation Form signed?
- Did the teacher use ProFile Web?
- Was MAP-A Material Submitted?

MAP-A Scorer Interface



Scoring Guide Pg. 7

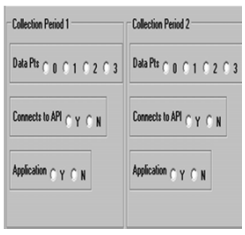
Entry Scoring Questions & Procedures



- Review the Entry/Data Summary Sheet and Student Work Records for the entry.
- Is the entry submitted?
- According to your grade-span-specific API list, is the API appropriate to the grade level?
- Enter in the API or APIs.
- Is the API Duplicated?
- Is the Justification Form Complete?

Scoring Guide

Entry Scoring Questions & Procedures

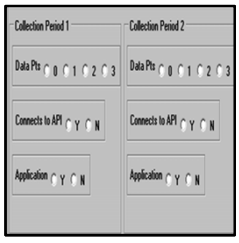


For each collection period:

- Do the dates on the Student Work Record correspond to the dates on the Entry/Data Summary Sheet?
- Do the dates fall within the allowable collection period time frames?
- How many data points were recorded?

Scoring Guide

Entry Scoring Questions & Procedures



For each collection period:

- Does the activity described on the Student Work Record connect to the API or APIs?
- Is the activity application?
- Is the Level of Accuracy evaluation complete and accurate?
- Is the Level of Independence evaluation complete and accurate?
- Verify calculations in non-ProFile generated binders.

Scoring Guide

Entry Scoring Questions & Procedures

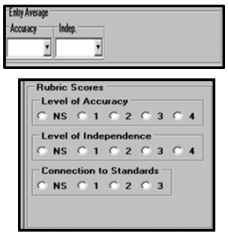
Summarize for each entry:

- Record the Entry Average percentage for Level of Accuracy.
- Assign rubric score for Level of Accuracy.

Level of Accuracy Rubric		
Score Point	**Entry Average %**	**Description**
4	**76 -100**	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 76–100% of the time across the two data collection periods.
3	**51-75**	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 51–75% of the time across the two data collection periods.
2	**26-50**	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 26–50% of the time across the two data collection periods.
1	**0-25**	The Entry/Data Summary Sheet indicates the student provided an accurate answer or response an average of 0–25% of the time across the two data collection periods.
NS		Insufficient information was given. The Entry/Data Summary Sheet was incomplete. Each entry must have six data points (three per collection period) as indicated on the Entry/Data Summary Sheet.

Scoring Guide

Entry Scoring Questions & Procedures



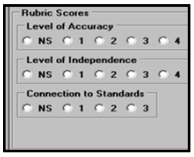
Summarize for each entry:

- Record the Entry Average percentage for Level of Independence.
- Assign rubric score for Level of Independence.

Level of Independence Rubric		
Score Point	**Entry Average %**	**Description**
4	**76 -100**	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 76–100% of the time across the two data collection periods. The student required minimal (0–24% of the time) cueing, prompting, or assistance.
3	**51-75**	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 51–75% of the time across the two data collection periods. The student required some (25–49% of the time) cueing, prompting, or assistance.
2	**26-50**	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 26–50% of the time across the two data collection periods. The student required frequent (50–74% of the time) cueing, prompting, or assistance.
1	**0-25**	The Entry/Data Summary Sheet indicates the student demonstrates skills and concepts independently an average of 0–25% of the time across the two data collection periods. The student required extensive (75–100% of the time) cueing, prompting, or assistance.
NS		Insufficient information was given. The Entry/Data Summary Sheet was incomplete. Each entry must have six data points (three per collection period) as indicated on the Entry/Data Summary Sheet.

Scoring Guide

Entry Scoring Questions & Procedures



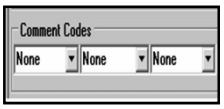
Summarize for each entry:

- Assign rubric score for Connection to the Standards.

Connection to the Standards Rubric	
Score Point	**Description**
3	The Student Work Records provide documentation of the application of the API/s in two standards-based activities, one per collection period.
2	The Student Work Records provide documentation of the application of the API/s in one standards-based activity (one out of two collection periods).
1	The Student Work Records provide documentation of the API/s but do not include application of the API/s in standards-based activities.
NS	Insufficient information was given. There were no work samples included for the API/s or the work samples submitted were not connected to the API/s.

Scoring Guide

Entry Scoring Questions & Procedures



Summarize for each entry:

- Record scoring irregularities in the Comment Codes section.
- Use the Scoring Irregularities and Rules to make scoring decisions.

Scoring Rules Pg. 9

	Scoring Irregularity	Scoring Rule
01	No dates given on Entry/Data Summary Sheet and on Student Work Records.	Assign "No Score" for each dimension of the rubric for this entry.
02	Missing Entry/Data Summary Sheet	Assign "No Score" for each dimension of the rubric for this entry.
03	A collection period does not have a minimum of three data points.	Assign "No Score" for each dimension of the rubric for this entry.
04	An entry does not include at least one Student Work Record per collection period.	Assign "No Score" for each dimension of the rubric for this entry.

Scoring Rules

	Scoring Irregularity	Scoring Rule
05	A submitted Student Work Record for an entry does not connect to the API/s.	Assign "No Score" for each dimension of the rubric for this entry.
06	One out of two collection periods are incomplete.	Assign "No Score" for each dimension of the rubric for this entry.
07	No API/s identified.	Assign "No Score" for each dimension of the rubric for this entry.
08	API/s is/are not grade span appropriate.	Assign "No Score" for each dimension of the rubric for this entry.

Scoring Rules

	Scoring Irregularity	Scoring Rule
09	A single API is used in more than one entry.	The first instance will be scored and the second instance will result in "Entry Not Submitted." Assign "No Score" for each dimension of the rubric for the second entry.

Scoring Rules

	Scoring Irregularity	Scoring Rule
11	Missing entry.	Will result in "Entry Not Submitted." Assign "No Score" for each dimension of the rubric for this entry.
12	API/s is/are not consistent across the 2 collection periods.	If the API/s is/are different in both collection periods the entry cannot be scored. Assign "No Score" for each dimension of the rubric for this entry.
13	Dates on the Entry/Data Summary Sheet and Student Work Records are not within the timeframes of the collection periods.	Any data from dates outside of the timeframes will not be used for scoring.

Scoring Rules

	Scoring Irregularity	Scoring Rule
14	One or more Student Work Records shows acquisition rather than application of the API/s.	The activity in these collection periods cannot be considered application.
15	Tangible student work submitted without a Student Work Record	The activity in this collection period cannot be considered application.
16	Student Work Record missing task/activity description	The activity in this collection period cannot be considered application.

Scoring Rules

	Scoring Irregularity	Scoring Rule
17	Submitted percentages are miscalculated.	Scorer corrects percentages.
18	Percentage calculations for Accuracy or Independence cannot be verified for a Student Work Record.	Percentage for Accuracy or Independence for the Student Work Record is replaced with zero and entry average is recalculated to determine rubric score.
?		

Dexter

Student Work Record

☐ Actual student product is attached.

Student Name: Dexter Phillips	**Grade:** 10	**Date:** 1/24/2007
Content Area: Mathematics		**Strand:** (NO)
API: NO10.5	**Description:** Compute with the operations of addition and/or subtraction.	

Task/Activity Description: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

Dexter was given 5 deposit slips, each containing 3 checks. He had to correctly add the amount to complete the deposit slips. He used a calculator to complete the task

Evaluation of Studen't Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for Level of Accuracy.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for Level of Independence.
Dexter was provided with examples on the overhead prior to the activity. Of the 5 deposit slips, Dexter had 2 correct. His score today was 2 out of 5.	Dexter required continuous prompting from his para-professional. Dexter did use a calculator.
Level of Accuracy 40 %	**Level of Independence** 0 %

2006-2007 MAP-A ProFile **MA Page:** 4

Entry/Data Summary Sheet
Mathematics/Communication Arts/Science

Student Name: Logan				**Grade: 5**		
Strand: ES	**Big Idea: The Earth's systems (geosphere, atmosphere, and hydrosphere) have both common components and unique structures.**			**Concept: Earth's crust is composed of various materials including soil, minerals, and rocks with characteristic properties.**		
API: ES 1.4 Explore one or more physical properties of rocks (size, shape, and/or color).						
Has this student been assessed on this API in previous years? Yes □ No □x						
	Collection Period 1 January 6 – January 31			**Collection Period 2 February 3 – February 28**		
	Dates below do not need to be in chronological order.			Dates below do not need to be in chronological order.		
Date	1/9/2014	1/15/2014	1/21/2014	2/7/2014	2/14/2014	2/19/2014
Data Type	Student Work Record	Data Point	Data Point	Student Work Record	Data Point	Data Point
Accuracy %	100	100	100	100	100	100
Independence %	100	100	100	40	80	20
Average % for Collection Period	Accuracy: 100			Accuracy: 100		
	Independence: 100			Independence: 47		

	API Entry Average
Level of Accuracy	100
Level of Independence	74

Student Work Record
Mathematics/Communication Arts/Science
Attach student work sample if appropriate.

Student Name: Logan	**Grade: 5**	**Date: 1/9/2014**
Strand: ES	**Big Idea: The Earth's systems (geosphere, atmosphere, and hydrosphere) have both common components and unique structures.**	**Concept: Earth's crust is composed of various materials including soil, minerals, and rocks with characteristic properties.**

API: ES1.4 Explore one or more physical properties of rocks (size, shape, and/or color).

Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

Recently the class has been studying different types of rocks in science class. Logan was asked to visually explore five different types of rocks. After visually exploring a rock, Logan will write down what color it is on his rock chart.

Evaluation of Student's Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence**.
Logan visually explored all five rocks for 5/5 accuracy.	Logan visually explored all five rocks completely independently.
Level of Accuracy 100%	**Level of Independence 100%**

Student Work Record
Mathematics/Communication Arts/Science
Attach student work sample if appropriate.

Student Name: Logan	**Grade:**	**Date: 2/7/2014**
Strand:	**Big Idea: The Earth's systems (geosphere, atmosphere, and hydrosphere) have both common components and unique structures.**	**Concept: Earth's crust is composed of various materials including soil, minerals, and rocks with characteristic properties.**

API: ES1.4 Explore one or more physical properties of rocks (size, shape, and/or color).

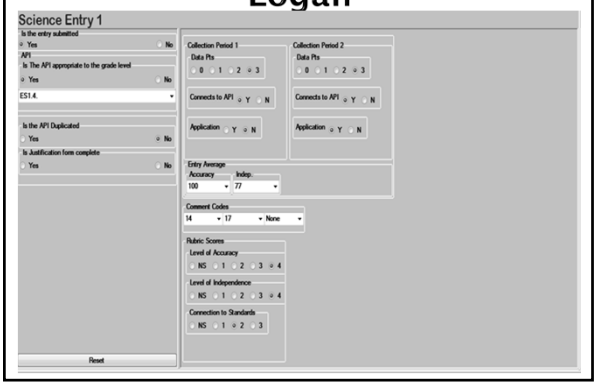
Task/Activity: (Write a brief description of the task/activity, its connection to the API, and how it demonstrates application.)

Recently the class has been studying different types of rocks in science class. Logan was asked to visually explore five different types of rocks. After visually exploring a rock, Logan will write down what color it is on his rock chart that will displayed on the science bulletin board for the other students to see.

Evaluation of Student's Performance:

Describe and evaluate the student's actual accuracy performance. Describe how the percentages were determined for **Level of Accuracy**.	Describe and evaluate the student's actual independence performance. Describe how the percentages were determined for **Level of Independence**.
Logan visually explored all five rocks for 5/5 accuracy.	Logan needed task specific assistance to visually explore 2 of the five rocks. He explored the other three independently.
Level of Accuracy 100%	**Level of Independence 40%**

Logan



Remember

- Activities that include leisure time, recess, free time, games, and journal writing are almost always application.
- Attend means paying attention.

Questions

???

Appendix H: Sample Reports

2014 MAP-A Paper Reporting

Report packages sent to districts included the mathematics and communication arts reports for students who reside and/or attend in the district. Each packet contained the following items:

Letter to District Testing Coordinator	
District Report	1 copy per district
(For the Missouri Schools for Severely Disabled, the State Schools Building Report, the State Schools Report, and the State Schools District Report were included in lieu of a District Report.)	
Mathematics Reports	
Individual Student Report-Parent	1 copy per student
Individual Student Report-Teacher	1 copy per student
Student Record Label	1 copy per student
Communication Arts Reports	
Individual Student Report-Parent	1 copy per student
Individual Student Report-Teacher	1 copy per student
Student Record Label	1 copy per student
Science Reports	
Individual Student Report-Parent	1 copy per student
Individual Student Report-Teacher	2 copy per student
Student Record Label	1 copy per student
Packing Slip	
Roster	

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

MAP-A 2014

Missouri Assessment Program - Alternate

Student Report
Mathematics
(Parent Copy)

Name: Paul
MOSIS: 0123456789 Grade: 7
Birthdate: 4/29/1995

School of Residence:
Pretendburgh High School
Fakeville R-I
123456

School of Attendance:
Pretendburgh High School
Fakeville R-I
123456

MAP-A Mathematics Achievement Level: **Advanced**

Advanced: Student has a strong understanding of the concepts contained in the grade-appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be closely connected to the strands and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Proficient: Student has a sound understanding of the concepts contained in the grade-appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be connected to the strands and demonstrate application. Student likely requires some verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

Basic: Student has a fundamental understanding of the concepts contained in the grade-appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be somewhat connected to the strands. Student likely requires frequent verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.

Below Basic: Student has a minimal understanding of the concepts contained in the grade-appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be loosely connected to the strands. Student likely requires extensive verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge and/or application of these concepts.

Level not Determined (LND): Insufficient evidence was reported to assign raw scores to this student's MAP-A; therefore, no achievement level may be assigned.

	API description	
Strand 1	**NO1.16.:** Communicate 3-digit numbers.	Level of Accuracy: 4 Level of Independence: 4 Connection to Standards: 3
	NO10.5.: Compute with the operations of addition and/or subtraction.	Level of Accuracy: 4 Level of Independence: 4 Connection to Standards: 3
Strand 2	**DP2.1.a.:** Make decisions on how to classify data. Given a class of objects, engage with informal sorting experiences (e.g., help put away groceries, sort blocks by a chosen attribute, etc.).	Level of Accuracy: 4 Level of Independence: 4 Connection to Standards: 3
	DP2.1.b.: Make decisions on how to classify data. Engage in sorting activities that focus on identified attributes of objects (e.g., sorting by color, play sorting games).	Level of Accuracy: 4 Level of Independence: 4 Connection to Standards: 3

This is a parent's copy of a MAP-A Individual Student Report of achievement in a single content area or subject. The following information may be found on this report.

- Content area assessed (Mathematics, Communication Arts, or Science)
- Student's MAP-A achievement level
- Achievement level descriptors (Advanced, Proficient, Basic, Below Basic, and Level Not Determined)
- Descriptions of the APIs (Alternate Performance Indicators) assessed
- Level of Accuracy, Level of Independence, and Connection to Standards scores for each entry

MAP-A Background

The Individuals with Disabilities Education Improvement Act (IDEA) of 2004 requires that students with disabilities participate in the general education curriculum with supplementary aides and supports when necessary. IDEA 2004 further requires that students with disabilities be included in all state- and district-wide assessment programs with appropriate accommodations or alternate assessments when necessary, as determined by their Individualized Education Program (IEP) team. In addition, the No Child Left Behind Act (NCLB) of 2001 requires that all students participate in state assessments in English language arts, mathematics, and science and that DESE report student performance to the public.

In Missouri, students with significant cognitive disabilities participate in the MAP-Alternate (MAP-A), ensuring that each student has the opportunity to acquire the knowledge and skills in the Missouri Show-Me Standards.

The MAP-A is a performance-based assessment in which teachers collect data and student work. The collected evidence provides documentation of the student's accuracy and independence and ensures that there is a connection between the Show-Me Standards and instruction.

The MAP-A is

- required by federal law;
- designed only for students with significant cognitive disabilities who meet grade-level and participation criteria;
- reflective of input from an IEP team, which may include teachers, physical therapists, speech therapists, occupational therapists, paraprofessionals, job coaches, parents or guardians, and the student, if appropriate;
- administered at the same grade levels as students participating in Missouri's general assessment; and
- scored using the MAP-A Scoring Rubric; raw scores are then converted to reported achievement levels.

Assessment Blueprint

The MAP-A assesses student learning directly connected to the Show-Me Standards, through the Alternate Grade-Level Expectations (AGLEs) for students who are MAP-A eligible. The MAP-A assesses student work in each of two strands in Communication Arts and Mathematics and four strands in Science, as shown in the table below.

Content Area	Required Grades	Strand
Mathematics	3-8, & 10	Numbers and Operations
	3-5	Algebraic Relationships **and/or** Geometric and Spatial Relationships
	6-8	Data and Probability
	10	Measurement
Communication Arts	3-8, & 11	Reading
	3-5	Writing Composition
	6-8, & 11	Writing Process
Science	5	Processes and Interactions of the Earthï¿½s Systems
		Composition and Structure of the Universe and the Motion of the Objects within it
		Scientific Inquiry **-OR-** Impact of Science, Technology, and Human Activity
		Characteristics and Interactions of Living Organisms **-OR-** Changes in Ecosystems and Interactions of Organisms with Their Environment
	8	Properties and Principles of Matter and Energy
		Properties and Principles of Force and Motion
		Processes and Interactions of the Earth's Systems **-OR-** Composition and Structure of the Universe and the Motion of the Objects within it
		Scientific Inquiry **-OR-** Impact of Science, Technology, and Human Activity
	11	Characteristics and Interactions of Living Organisms
		Changes in Ecosystems and Interactions of Organisms with Their Environment
		Scientific Inquiry **-OR-** Impact of Science, Technology, and Human Activity
		Properties and Principles of Matter and Energy **-OR-** Properties and Principles of Force and Motion

Alternate Performance Indicators (APIs), component concepts of the strands outlined in the table above, are assessed for each strand. The four specific APIs assessed in this student's MAP-A are listed on the reverse side of this report.

Scoring

The MAP-A is assessed over three criteria, or scoring dimensions:

- Level of Accuracy - points possible per entry
- Level of Independence - points possible per entry
- Connection to the Standards - points possible per entry

The entries that make up the MAP-A are assigned a raw score for each of the scoring dimensions. Eleven points are possible for each entry. The raw scores for each API assessed are reported on the reverse side of this report. Raw scores are totaled and then converted to the overall achievement level reported for the subject area. For more information, see the *Guide to Interpreting MAP-A Results.*

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

MAP-A 2014
Missouri Assessment Program - Alternate

Student Report
Mathematics
(Teacher Copy)

Name: Paul
MOSIS: 0123456789 Grade: 7
Birthdate: 4/29/1995

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Pretendburgh High School
Fakeville R-I
123456

School of Attendance:
Pretendburgh High School
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MAP-A Mathematics Achievement Level: **Advanced**

Advanced: Student has a strong understanding of the concepts contained in the grade-appropriate APIs within the strands of Numbers and Operations and Data and Probability. Student work may be closely connected to the strands and demonstrate strong application. Student likely requires minimal verbal, visual and/or physical task-specific assistance in order to demonstrate knowledge of these concepts.

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	API description		
Strand 1	**NO1.16.:** Communicate 3-digit numbers.	Level of Accuracy	4
		Level of Independence	4
		Connection to Standards	3
		Comments	
	NO10.5.: Compute with the operations of addition and/or subtraction.	Level of Accuracy	4
		Level of Independence	4
		Connection to Standards	3
		Comments	
Strand 2	**DP2.1.a.:** Make decisions on how to classify data. Given a class of objects, engage with informal sorting experiences (e.g., help put away groceries, sort blocks by a chosen attribute, etc.).	Level of Accuracy	4
		Level of Independence	4
		Connection to Standards	3
		Comments	
	DP2.1.b.: Make decisions on how to classify data. Engage in sorting activities that focus on identified attributes of objects (e.g., sorting by color, play sorting games).	Level of Accuracy	4
		Level of Independence	4
		Connection to Standards	3
		Comments	

See comment definitions on reverse side.

This is a teacher's copy of a MAP-A Individual Student Report of achievement in a single content area or subject. The following information may be found on this report.

- Content area assessed (Mathematics, Communication Arts, or Science)
- Student's MAP-A achievement level
- Achievement level descriptors (Advanced, Proficient, Basic, Below Basic, and Level Not Determined)
- Descriptions of the Alternate Performance Indicators (APIs)
- Level of Accuracy, Level of Independence, and Connection to Standards scores for each entry
- Scoring comment codes, if reported, for each entry

Background

The Individuals with Disabilities Education Improvement Act (IDEA) of 2004 requires that students with disabilities participate in the general education curriculum with supplementary aides and supports when necessary. IDEA 2004 further requires that students with disabilities be included in all state- and district-wide assessment programs with appropriate accommodations or alternate assessments when necessary, as determined by their Individualized Education Program (IEP) team. In addition, the No Child Left Behind Act (NCLB) of 2001 requires that all students participate in state assessments in English language arts, mathematics, and science and that DESE report student performance to the public. In Missouri, students with significant cognitive disabilities participate in the MAP-Alternate (MAP-A), ensuring that each student has the opportunity to acquire the knowledge and skills in the Missouri Show-Me Standards.

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- required by federal law;
- designed only for students with significant cognitive disabilities who meet grade-level and participation criteria;
- reflective of input from an IEP team, which may include teachers, physical therapists, speech therapists, occupational therapists, paraprofessionals, job coaches, parents or guardians, and the student, if appropriate;
- administered at the same grade levels as students participating in Missouri's general assessment; and
- scored using the MAP-A Scoring Rubric; raw scores are then converted to reported achievement levels.

Content Area	Required Grades	Strand
Mathematics	3-8, & 10	Numbers and Operations
	3-5	Algebraic Relationships **and/or** Geometric and Spatial Relationships
	6-8	Data and Probability
	10	Measurement

Assessment Blueprint

The MAP-A assesses student learning directly connected to the Show-Me Standards, through the Alternate Grade-Level Expectations (AGLEs) for students who are MAP-A eligible. The MAP-A assesses student work in each of two strands in Communication Arts and Mathematics and four strands in Science, as shown in the table above.

Alternate Performance Indicators (APIs), component concepts of the strands outlined in the table above, are assessed for each strand. The four specific APIs assessed in this student's MAP-A are listed on the reverse side of this report.

Scoring

The MAP-A is assessed over three criteria, or scoring dimensions:

- Level of Accuracy – 4 points possible per entry
- Level of Independence – 4 points possible per entry
- Connection to the Standards – 3 points possible per entry

The four entries that make up the MAP-A are assigned a score for each of the scoring dimensions. Eleven points are possible for each entry. The raw scores for each API assessed are reported on the reverse side of this report. Raw scores are totaled and then converted to the overall achievement level reported for the subject area.

Scoring Comment Codes

Irregularities encountered in MAP-A entries during scoring are noted with the codes in the table below. Up to three codes per entry may be reported.

Comment Code	Scoring Irregularity
01	No dates given on Entry/Data Summary Sheet and on Student Work Records.
02	Missing Entry/Data Summary Sheet.
03	A collection period does not have a minimum of three data points.
04	An entry does not include at least one Student Work Record per collection period.
05	A submitted Student Work Record for an entry does not connect to the API(s).
06	One out of two collection periods is incomplete.
07	No API(s) identified.
08	API(s) is/are not grade span appropriate.
09	A single API is used in more than one entry.
11	Missing entry.
12	API(s) is/are not consistent across the two collection periods.
13	Dates on the Entry/Data Summary Sheet and Student Work Records are not within the timeframes of the collection periods.
14	One or more Student Work Records shows acquisition rather than application of the API(s).
15	Tangible student work submitted without a Student Work Record.
16	Student Work Record missing task/activity description.
17	Submitted percentages are miscalculated.
18	Calculations for Accuracy or Independence cannot be verified for a Student Work Record.

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

MAP-A 2014

Missouri Assessment Program - Alternate

Individual Student Mathematics API History

Paul	MOSIS: 0123456789 MAP-A #: 597 Date of Birth: 4/29/1995 Grade: 7
School of Residence: Pretendburgh High School Fakeville R-I 123456	School of Attendance: Pretendburgh High School Fakeville R-I 123456

	Mathematics			
	Strand 1		Strand 2	
	Entry 1	Entry 2	Entry 1	Entry 2
Year: 2012-2013 Grade: 7	**NO1.16.:** Communicate 3-digit numbers.	**NO10.5.:** Compute with the operations of addition and/or subtraction.	**DP2.1.a.:** Make decisions on how to classify data. Given a class of objects, engage with informal sorting experiences (e.g., help put away groceries, sort blocks by a chosen attribute, etc.).	**DP2.1.b.:** Make decisions on how to classify data. Engage in sorting activities that focus on identified attributes of objects (e.g., sorting by color, play sorting games).
Year: 2011-2012 Grade: 6	**NO1.3.:** Use the counting sequence to enumerate (count 1 by 1) a collection and to identify "how many" items in a collection.	**NO1.18.:** Recognize or request more and less of something (e.g., identify which glass has more or less milk).	**DP1.1.b.:** Formulate questions that can be addressed with data collection. Pose a question to find information (e.g., "How many pets do you have?").	**DP3.1.d.:** Represent data. Display data using a variety of representations (e.g., pictures and bar graphs).
Year: 2010-2011 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2009-2010 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2008-2009 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2007-2008 Grade:	No Data Available	No Data Available	No Data Available	No Data Available
Year: 2006-2007 Grade:	No Data Available	No Data Available	No Data Available	No Data Available

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

MAP-A 2014

Missouri Assessment Program - Alternate

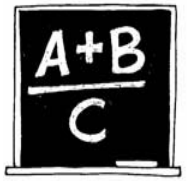
District Report

Fakeville R-I

Pretendburgh

Imposter County

123456



Mathematics

	Elementary School Grade 3, 4, 5				Middle School Grade 6, 7, 8				High School Grade 10			
	District		State		District		State		District		State	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Advanced	0		1809	64.54	0		1528	54.17	0		550	64.55
Proficient	2	100.00	738	26.33	0		921	32.65	0		200	23.47
Basic	0		182	6.49	0		202	7.16	0		59	6.92
Below Basic	0		52	1.86	0		148	5.25	0		20	2.35
LND	0		22	0.78	0		22	0.78	0		23	2.70
Total Count	2		2803		0		2821		0		852	

Communication Arts

	Elementary School Grade 3, 4, 5				Middle School Grade 6, 7, 8				High School Grade 11			
	District		State		District		State		District		State	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Advanced	0		1749	62.40	0		1468	52.04	0		385	48.73
Proficient	2	100.00	811	28.93	0		759	26.91	0		103	13.04
Basic	0		176	6.28	0		426	15.10	0		193	24.43
Below Basic	0		46	1.64	0		148	5.25	0		94	11.90
LND	0		21	0.75	0		20	0.71	0		15	1.90
Total Count	2		2803		0		2821		0		790	

Science

	Elementary School Grade 5				Middle School Grade 8				High School Grade 11			
	District		State		District		State		District		State	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Advanced	1	50.00	654	70.40	0		596	65.28	0		573	72.53
Proficient	1	50.00	204	21.96	0		199	21.80	0		142	17.97
Basic	0		51	5.49	0		82	8.98	0		46	5.82
Below Basic	0		6	0.65	0		22	2.41	0		13	1.65
LND	0		14	1.51	0		14	1.53	0		16	2.03
Total Count	2		929		0		913		0		790	