

Grades 9-12 Mathematics Curriculum

RATIONALE

All students, regardless of different abilities, needs and interests, must be able to use mathematics in their personal life. Mathematics is used in daily life as well as in the workplace. All students deserve to understand the power of mathematics. Students need to solve problems encountered in daily life and to predict future needs or outcomes.

DESCRIPTION/PURPOSE

The mathematics curriculum requires participation in learning, connection to other curriculum areas, using technology, and generalization into the community. Mathematics enables students to fulfill personal ambitions and career goals in an ever-changing world.

Students with severe disabilities are able to build on the following outcomes through the mathematics:

- Learning concepts and skills in order to apply them to problem solving in and outside school
- Use comparison, sequencing, counting, and classifying to solve problems in daily life and in the work force
- Predict future needs through mathematics
- Follow a routine to participate in daily life
- Participate in daily life through the use of technology
- Learn and use signs, symbols and specialized terms of mathematics in communication

Content Description by Grade Level Span

Grade levels are divided into four segments; kindergarten-second grade; third-fifth grade; sixth-eighth grades; and, ninth-twelfth grades. Grade twelve can last up to four years. The curriculum is cumulative in that skills learned during the elementary years are expanded during the middle school grades and so forth. The goals and benchmarks for the student must be selected from the student's curricular grade span. We recognize that each student will accomplish the graduate goals by different means (goals mastered).

Mathematics Grades 9-12

Graduate Goal 1	Graduates will communicate.
Graduate Goal 4	Graduates will solve problems or complete tasks.
Graduate Goal 5	Graduates will follow routines.
GLE:	Not Available
STRAND:	Not Available

Show-Me Standard M-4 Patterns and relationships within and among functions and algebraic, geometric, and trigonometric concepts.
Alternate Framework Standard AltM-4 Recognizing shapes and patterns in the environment using visual models.
Alternate Process Standard: (What All Students Should Do) Goal 1 Alt-5, Goal 1 Alt-6, Goal 1 Alt-8

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Complete the steps of a visual schedule.	5017020		Follow examples for how to complete a task by following pictorial cues—hand washing picture sequence on the wall, picture cue on making Kool-Aid. Use an individual daily schedule which is developed with the assistance of the student.
Follow a daily schedule by carrying the object/representation to the activity site.	7300055		
Match activity to line drawing on visual schedule.	7300003		
Complete activity as indicated on visual schedule.	7800001		Follow (time and sequence) to complete activities that are found in the daily visual schedule.
Point to the picture of activity just completed.	7300067		

VISUAL SCHEDULES

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will count and recognize “how many” in a set of objects.

STRAND: Number and Operations

Show-Me Standard M-1
Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Reach for and touch objects to explore quantity.	7810154		
Represent and number small collections.	7810155	NO1.1	
Start counting sequence with one.	7810158	NO1.2a	
Use the counting sequence to enumerate (count one by one) a collection and to identify “how many” items in a collection.	7810160	NO1.3	
Demonstrate one-to-one correspondence between objects and counting words.	7810161	NO1.3a	
Count with a 1 to 1 correspondence from 1 through 25.	5906010		
Represent and number collections of items.	7810163	NO1.4	
Select 1 to 20 objects from a group of more than 20.	5906014		
Demonstrate that the final number said when counting the objects is the quantity of the set.	7810164	NO1.4b	
Use numbers in daily activities.	7810165		
Discriminate between numerals and other printed symbols.	7810168	NO1.7	

READ, WRITE AND COMPARE NUMBERS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will perform counting skills.

STRAND: Number and Operations

Show-Me Standard M-1
Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Select from a group the numerals 1 through 15.	5906021		
Select from a group the numerals 1 through 20.	5906022		
Point to the numerals 1 through 31.	7300066		
Identify the numerals 1 through 31 on a calendar page.	5918001		
Identify the numerals 1 through 15 in random order.	5906033		
Identify the numerals 1 through 20 in random order.	5906034		
Communicate 1-9 numerals by writing, using number cards, using a communication board.	7810169	NO1.9	
Print numerals.	7810170		

READ, WRITE AND COMPARE NUMBERS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will read, write, and compare whole numbers.

STRAND: Number and Operations

Show-Me Standard M-1
 Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
 Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
 Goal 1 Alt-6

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Match the numerals 1 through 15 to corresponding sets of objects.	5906025		
Match the numerals 1 through 20 to corresponding sets of objects.	5906026		
Appropriately label the quantity of an empty set using the terms "0", "nothing", or "none".	7810182	NO1.11	
Identify a 2 digit number.	7810183	NO1.12	
Communicate 2 digit numbers.	7810184	NO1.13	
Use written numbers or words to represent the cardinal value of a collection.	7810185	NO1.14	Use money cue cards for purchasing at a store or a vending machine.
Identify the larger of two written numbers.	7810186	NO1.17	Compare cost of items, newspaper advertising costs.
Select the number that is the larger or smaller of two.	5906050		

READ, WRITE AND COMPARE NUMBERS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 2 Graduates will make choices.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will compare whole numbers.

STRAND: Number and Operations

Show-Me Standard M-6
Discrete mathematics (such as graph theory, counting techniques, matrices).

Alternate Framework Standard AltM-6
Using comparison, sequencing, counting and classifying to solve problems related to daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-7, Goal 3 Alt-10, Goal 3 Alt-2

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Recognize or request more and less of something.	7810187	NO1.18	
Gesture, sign, point to picture, or verbalize "more".	5615102		
Use counting to compare two quantities, up to four items, as same or more.	7810189	NO1.20	
Select which is more using numbers 1-20.	7300019		
Associate the number 0 with empty sets.	7810191	NO1.26	
Select from a group of containers the one that is full/empty.	5930008		

READ, WRITE AND COMPARE NUMBERS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will represent commonly used fractions.

STRAND: Number and Operations

Show-Me Standard M-5
 Mathematical systems (including real numbers, whole numbers, integers, fractions) geometry, and number theory (including primes, factors, multiples).

Alternate Framework Standard AltM-5
 Using the relationships between whole numbers, fractions, and shapes to understand real-life concepts.

Alternate Process Standard: (What All Students Should Do)
 Goal 1 Alt-6

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Demonstrate an understanding of a whole unit.	7810192	NO2.1	
Show that fractional parts are equal shares or equal-sized portions of a whole unit.	7810193	NO2.2	
Explore fractions using manipulatives.	7810194	NO2.2a	
Recognize everyday uses of fractional parts.	7810195	NO2.3	

REPRESENT AND USE RATIONAL NUMBERS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will connect number words (orally) and quantities they represent.

STRAND: Number and Operations

Show-Me Standard M-1
 Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
 Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
 Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities	COMPOSE AND DECOMPOSE NUMBERS
Demonstrate that one symbol can represent the whole amount.	7810196	NO3.1		
Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.				

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will compose or decompose numbers using known facts.

STRAND: Number and Operations

Show-Me Standard M-1

Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1

Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)

Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities	COMPOSE AND DECOMPOSE NUMBERS
Nonverbally demonstrate combining and separating problems.	7810197	NO3.2		
Add one item to another item (combine items).	7810198	NO3.2a		
Subtract one item from two items (remove items).	7810200	NO3.2b		
Use concrete materials or pictures to solve addition and subtraction situation problems.	7810201	NO3.3		
Use a calculator to demonstrate composition and decomposition of one- and two-digit numbers.	7810202	NO3.7		
Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.				

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will represent a given situation involving addition.

STRAND: Number and Operations

Show-Me Standard M-1
Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Nonverbally demonstrate combining problems.	7810204	NO5.1	Combining actions, part-part whole relationships and comparison situations.
Add one set to another set (combine sets).	7810205	NO5.1a	
Put objects in a container to combine sets of objects.	7810206		
Subtract some items from a larger set (remove items).	7810208	NO5.1b	

REPRESENT OPERATIONS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Student will develop and demonstrate fluency with basic number combinations (addition, subtraction and multiplication).

STRAND: Number and Operations

Show-Me Standard M-1
Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Use concrete materials to show one or two more or less than the original number.	7810213	NO9.1	
Show/give one more item.	7810214		
Show/give two more items.	7810215		
Take away/remove one item.	7810216		
Take away/remove two items.	7810217		

DEVELOP AND DEMONSTRATE FLUENCY WITH BASIC NUMBERS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Student will apply strategies to compute (addition, subtraction and multiplication).

STRAND: Number and Operations

Show-Me Standard M-1
Addition, subtraction, multiplication, and division; other number sense, including numeration and estimation and application of these operations and concepts in the workplace and other situations.

Alternate Framework Standard AltM-1
Counting and grouping strategies used to solve problems encountered in the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Recognize grouping situations.	7810242	NO10.6	
Group a small collection.	7810243	NO10.7	

APPLY STRATEGIES TO COMPUTE

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 3 Graduates will express personal feelings and self-advocate for needs.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Student will estimate a solution to a problem (addition, subtraction, and multiplication).

STRAND: Number and Operations

Show-Me Standard M-3
Data analysis, probability, and statistics

Alternate Framework Standard AltM-3
Gathering and using quantitative information to predict future need or outcomes.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 1 Alt-8, Goal 3 Alt-4, Goal 3 Alt-7

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities	ESTIMATE AND JUSTIFY SOLUTIONS	
Use comparisons to estimate size.	7810219	NO11.1	Choose correct clothing size.		ESTIMATE AND JUSTIFY SOLUTIONS
Select the larger size of an item.	7300018				
				ESTIMATE AND JUSTIFY SOLUTIONS	

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will recognize patterns of sounds or shapes.

STRAND: Algebraic Relationships

Show-Me Standard M-4
Patterns and relationships within and among functions and algebraic, geometric, and trigonometric concepts.

Alternate Framework Standard AltM-4
Recognizing shapes and patterns in the environment using visual models.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-5, Goal 1 Alt-6, Goal 1 Alt-8

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Engage in pattern-related activities in the every day environment.	7810171	AR1.1a	Set table by design, placemats. Perform music/dance with motions, pictures, objects.
Recognize the pattern of a pattern-related activity.	7810173	AR1.1b	
Explore simple repeating patterns with concrete materials.	7810172	AR1.1c	
Reproduce (by matching or being shown) a simple repeating pattern.	7810174	AR1.1e	
Reproduce sequenced pattern of objects.	5762011		Set out materials for lunch table according to a list/pattern, etc.
Reproduce sequenced pattern of objects in left to right progression.	5762012		
Extend a repeating pattern of sound, shapes, and numbers.	7810175	AR1.1g	

RECOGNIZE AND EXTEND PATTERNS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will recognize patterns of sounds or shapes.

STRAND: Algebraic Relationships

Show-Me Standard M-4
Patterns and relationships within and among functions and algebraic, geometric, and trigonometric concepts.

Alternate Framework Standard AltM-4
Recognizing shapes and patterns in the environment using visual models.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-5, Goal 1 Alt-6, Goal 1 Alt-8

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Create patterns.	7810221	AR2.1	Identify the core unit of a repeating pattern. (e.g, circle, square repeats).
Create a simple repeating pattern with concrete materials.	7810222	AR2.1a	
Analyze patterns.	7810223	AR2.2	
Describe a simple repeating pattern.	7810224	AR2.2a	
Predict "what comes next" for a repeating pattern.	7810225	AR2.2b	

CREATE AND ANALYZE PATTERNS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will sort objects by attributes.

STRAND: Algebraic Relationships

Show-Me Standard M-2
Geometric and spatial sense involving measurement (including length, area, volume), trigonometry, and similarity and transformations of shapes.

Alternate Framework Standard AltM-2
Applying basic concepts related to size, shape, and amount (including measurement skills) to the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 3 Alt-2, Goal 3 Alt-6, Goal 3 Alt-7, Goal 3 Alt-8

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Match like objects.	7810226		Classify objects (sort into a systematic arrangement of groups according to established criteria).
Sort, classify and order objects.	7810227	AR3.1	
Given a class of objects, engage with informal sorting experiences.	7810229	AR3.1a	
Classify objects.	7810230	AR3.1d	

CLASSIFY OBJECTS AND REPRESENTATIONS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 2 Graduates will make choices.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will model situations that involve whole numbers, using pictures, objects or symbols.

STRAND: Algebraic Relationships

Show-Me Standard M-6
Discrete mathematics (such as graph theory, counting techniques, matrices).

Alternate Framework Standard AltM-6
Using comparison, sequencing, counting and classifying to solve problems related to daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-7, Goal 1 Alt-10, Goal 3 Alt-2

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Use models to represent quantitative relationships.	7810176	AR6.1	
Use pictures, objects or symbols to enact stories or model situations involving whole numbers.	7810177	AR6.1a	Develop social stories that relate to each student and/or seasons/holidays that include numbers.
Use pictures, objects or symbols to enact stories or model situations involving addition and subtraction of whole numbers.	7810231	AR6.1b	

USE MATHEMATICAL MODELS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 3 Graduates will express personal feelings and self-advocate for needs.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will determine qualitative change such as students growing taller.

STRAND: Algebraic Relationships

Show-Me Standard M-3
Data analysis, probability, and statistics

Alternate Framework Standard AltM-3
Gathering and using quantitative information to predict future need or outcomes.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 1 Alt-8, Goal 3 Alt-4, Goal 3 Alt-7

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Recognize change in the environment.	7810233	AR7.1a	
Engage in activities to keep track of change.	7810234	AR7.1b	
Describe change in qualitative terms.	7810235	AR7.1c	
Identify some changes are predictable and others are not.	7810236	AR7.1d	Use object/picture schedule. Develop student storybook or social story about change.

ANALYZE CHANGE

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will sort 2 dimensional shapes using physical models (circle, rectangle, triangle).

STRAND: Geometric and Spatial Relationships

Show-Me Standard M-2
Geometric and spatial sense involving measurement (including length, area, volume), trigonometry, and similarity and transformations of shapes.

Alternate Framework Standard AltM-2
Applying basic concepts related to size, shape, and amount (including measurement skills) to the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 3 Alt-2, Goal 3 Alt-6, Goal 3 Alt-7, Goal 3 Alt-8

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Identify, name, compare and/or sort 2-D shapes (pictures).	7810178	GS1.1	
Identify shapes by pointing or other appropriate gesture.	5603039		
Use 2-D shapes for informal play.	7810179	GS1.1a	
Release a two-dimensional object.	7600133		
Match common shapes.	7400232		
Match 2 dimensional items to identical 2 dimensional items.	5756040	GS1.1b	
Match 2 dimensional items to similar 2 dimensional items based on common factors.	5756041		
Recognize and name circle, square, triangle, rectangle in any size or orientation.	7810244	GS1.1f	
Use shape class names, such as rectangle/triangles, to classify and sort.	7810063	GS1.1g	
Describe, draw and represent 2-D shapes.	7810245	GS1.2	
Draw a 2-D shape with some accuracy.	7810246	GS1.2a	
Describe a 2-D shape informally.	7810247	GS1.2b	

DESCRIBE AND USE GEOMETRIC RELATIONSHIPS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will sort 2 to 3 dimensional shapes using physical models (circle, rectangle, triangle).

STRAND: Geometric and Spatial Relationships

Show-Me Standard M-2
Geometric and spatial sense involving measurement (including length, area, volume), trigonometry, and similarity and transformations of shapes.

Alternate Framework Standard AltM-2
Applying basic concepts related to size, shape, and amount (including measurement skills) to the activities of daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 3 Alt-2, Goal 3 Alt-6, Goal 3 Alt-7, Goal 3 Alt-8

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Put together 2-D shapes to make new shapes.	7810180	GS2.1	Use pattern blocks to cover a pattern block puzzle shape (e.g., geo-blocks, prisms, pyramids).
Use shapes in isolation, concrete or semi-concrete, to make a picture.	7810181	GS2.1a	
Use shapes (concrete or semi-concrete) by combining the shapes to make a picture or design.	7810237	GS2.1b	

COMPOSE AND DECOMPOSE SHAPES

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will recognize or demonstrate relative positions in space (above, below, front, behind).

STRAND: Geometric and Spatial Relationships

Show-Me Standard M-4
Patterns and relationships within and among functions and algebraic, geometric, and trigonometric concepts.

Alternate Framework Standard AltM-4
Recognizing shapes and patterns in the environment using visual models.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-5, Goal 1 Alt-6

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Recognize or demonstrate relative positions in space.	7810238	GS3.1	
Place an item above/below another item.	5756018		
Place an item on/off another item.	5756016		
Place item in/out of another item.	5756020		
Place an item under/over another item.	5756017		
Use everyday positional descriptions such as over, under, near, far, between, left, right, above, below, on, beside, next to, to recognize relative positions of objects in space.	7810239	GS3.1a	
Use directions with positional descriptions to identify location of objects in space.	7810240	GS3.1b	
Carry out 2 requests using prepositions.	5603028		
Plan route to familiar destinations.	6408007		
Walk following a set route.	5295005	GS3.2a	
Use navigational ideas; such as left, right, forward, backward to move along a path.	7810241	GS3.2b	Students participate in scavenger hunt for objects, PE motor games – obstacle course with verbal and/or pictorial directions. Put red flag on left arm and blue flag on right arm and roll ball with red (left) arm. Backward and forward – wheelchair mobility course.

USE COORDINATE SYSTEMS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will develop procedures to address a given question.

STRAND: Data and Probability

Show-Me Standard M-3
Data analysis, probability, and statistics

Alternate Framework Standard AltM-3
Gathering and using quantitative information to predict future need or outcomes.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 1 Alt-8, Goal 3 Alt-4

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Pose questions to answer/find information.	7810248	DP1.1b	

FORMULATE QUESTIONS

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will sort items according to their attributes.

STRAND: Data and Probability

Show-Me Standard M-6
Discrete mathematics (such as graph theory, counting techniques, matrices).

Alternate Framework Standard AltM-6
Using comparison, sequencing, counting and classifying to solve problems related to daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Given a class of objects, engage with sorting experiences.	7810249	DP2.1a	
Engage in sorting activities with identified attributes of objects.	7810228	DP2.1b	

CLASSIFY AND ORGANIZE DATA

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will represent data using pictures and bar graphs.

STRAND: Data and Probability

Show-Me Standard M-6
Discrete mathematics (such as graph theory, counting techniques, matrices).

Alternate Framework Standard AltM-6
Using comparison, sequencing, counting and classifying to solve problems related to daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities	REPRESENT AND INTERPRET DATA
Demonstrate awareness that symbols may be used to represent objects and events.	7810251	DP3.1c	Anticipate calendar events when going to grandmas house, Holidays, weekends and changes in schedule.	
Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.				

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Students will analyze data for patterns and describe important features of the data.

STRAND: Data and Probability

Show-Me Standard M-6
Discrete mathematics (such as graph theory, counting techniques, matrices).

Alternate Framework Standard AltM-6
Using comparison, sequencing, counting and classifying to solve problems related to daily living.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-4, Goal 1 Alt-6, Goal 3 Alt-2, Goal 3 Alt-3

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Select from a group of containers the one that will hold the most/least.	5930006		
Select from a group of containers the one that has many/few items.	5930007		
Select the largest/smallest object from a group of objects of various sizes.	5930001		
Determine which category has the most.	7810252	DP4.1c	

DESCRIBE AND ANALYZE DATA

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 3 Graduates will express personal feelings and self-advocate for needs.

Graduate Goal 4 Graduates will solve problems or complete tasks.

GLE: Given a set of data, students will propose and justify a conclusion that is based on data.

STRAND: Data and Probability

Show-Me Standard M-3
Data analysis, probability, and statistics

Alternate Framework Standard AltM-3
Gathering and using quantitative information to predict future need or outcomes.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 1 Alt-8, Goal 3 Alt-4, Goal 3 Alt-7

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Discuss and make predictions.	7810253	DP6.1	Justify a conclusion based on data (e.g., "Why do we need to wear a coat today?"). If the pot pie comes out of the oven, it is hot. Don't touch. If it is cold outside, need a coat. What materials do you need to do a task? What do you need to do next?
Attend to discussions using prediction language, such as "likely" and "unlikely" (if-then situations).	7810254	DP6.1a	
Discuss events related to the student's experiences using prediction language such as "likely" and "unlikely" (if-then situations).	7810255	DP6.1b	

DEVELOP AND EVALUATE INFERENCES

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 6 Graduates will participate in cause and effect activities.

GLE: Students will describe the degree of likelihood of events using words/symbols (i.e., certain, equally likely, impossible).

STRAND: Data and Probability

Show-Me Standard M-3
Data analysis, probability, and statistics

Alternate Framework Standard AltM-3
Gathering and using quantitative information to predict future need or outcomes.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 1 Alt-8, Goal 3 Alt-4, Goal 3 Alt-7

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Attend to another person using a chance device.	7810256	DP7.1a	Attend to a person using a chance device (e.g., spinner, dice – use adapted dice of a large foam cube with pictures, colors, dots, etc.) and to another person recording outcomes of a chance device. Attend to a person to describe the likelihood of events (chance or daily) using words as “likely,” “certain,” “equally likely.” Describe the likelihood of events (daily) using words as “likely,” “certain,” “equally likely,” “unlikely.”
Attend to a person describing the likelihood of events.	7810257	DP7.1b	
Participate in activities involving chance.	7810258	DP7.1d	
Collect and record outcomes of a simple event.	7810259	DP7.1e	Earning coins to put in a bank for work completed; coloring or placing Velcro dot on pictorial graph for how far walked or pushed wheelchair.

APPLY BASIC CONCEPTS OF PROBABILITY

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will describe passage of time using terms such as today, yesterday, and tomorrow.

STRAND: Measurement

Show-Me Standard M-3
Data analysis, probability, and statistics

Alternate Framework Standard AltM-3
Gathering and using quantitative information to predict future need or outcomes.

Alternate Process Standard: (What All Students Should Do)
Goal 1 Alt-6, Goal 1 Alt-8, Goal 3 Alt-4, Goal 3 Alt-7

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities	TELL AND USE UNITS OF TIME
Listen and/or participate in calendar activities.	7810260	ME2.1a	Identify what tasks a student will do before lunch. Listen to others "talk time" (e.g., "It is 2:30, time to get ready to go home)." Describe passage of time by using a calendar to see how many more days to a special event (e.g., How many more days until a birthday).	
Read information on a calendar.	7300029			
Identify the days of the week in sequential order.	5918002			
Identify the present day of the week.	5918003			
Locate the present date on a calendar.	7810019			
Begin to describe passage of time using terms such as: "today," "yesterday," "tomorrow".	7810261	ME2.1c	In a morning activity compare the visual schedule from yesterday and make changes for today's work. At the end of the schedule, have pictures of related service persons that will be in the activity tomorrow.	
Start to understand time is the duration of an event from beginning to its end.	7810262	ME2.1d	Use concrete timer that shows (colored red) time span that clicks down to zero to show the amount of the time left in a leisure activity.	
Tell time to the nearest hour on a standard clock.	5918050	ME2.2c		
Identify the specific hour that certain activities occur.	5918029			
Tell time.	7810263	ME2.2e	Develop a pictorial TV Guide with time and days of the week listing the student's favorite TV programs. Have the student locate programs, etc.	

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.

Mathematics Grades 9-12

Graduate Goal 1 Graduates will communicate.

Graduate Goal 4 Graduates will solve problems or complete tasks.

Graduate Goal 5 Graduates will follow routines.

GLE: Students will select coins/bills needed for purchase, count coins to \$1.00, and make change.

STRAND: Measurement

Show-Me Standard M-5
 Mathematical systems (including real numbers, whole numbers, integers, fractions) geometry, and number theory (including primes, factors, multiples).

Alternate Framework Standard AltM-5
 Using the relationships between whole numbers, fractions, and shapes to understand real-life concepts.

Alternate Process Standard: (What All Students Should Do)
 Goal 1 Alt-6, Goal 2 Alt-1

Authentic Life Skills (What All Students Should Know)	IEP Code	API Code	Authentic Learning Activities
Identify a penny.	5924031	ME3.1a	
Match or identify a nickel.	7810069	ME3.1b	
Match or identify a dime.	7810011	ME3.1c	
Match or identify a quarter.	7810040	ME3.1d	
Match coins to a money cue card.	5924181		
Select needed coins or bills to make a purchase.	7810264	ME3.4a	Use money cue cards, coin cue cards or only dollar bills while making purchases in the community.

COUNT AND COMPUTE MONEY

Assessment of Student Performance: Performance tasks, student performance data, authentic assessment.