

# Item Alignment Plan for the Missouri EOC Assessments

Presented by  
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## 1. Introduction

This document presents the plan to review the crosswalks from the old standards to the new Missouri Learning Standards and to align items to the new standards for the Missouri End-of-Course (MO EOC) Assessments in Algebra I, Algebra II, Geometry, Biology, Physical Science, English I, English II, American History, and Government. The results of this study will be used to determine which items can be realigned to the new standards and which items cannot, as well as to highlight gaps in standards representation on the assessments.

The Missouri Department of Elementary and Secondary Education (DESE) conducted the crosswalks and posted them online.<sup>1</sup> Questar Assessment, Inc. (Questar) assessment specialists will review the Missouri Learning Standards and crosswalks to become familiarized with the transition of the old to new standards that were approved by the Missouri State Board of Education on April 19, 2016. Crosswalks have already been completed for Algebra I, Algebra II, Geometry, English I, English II, American History, and Government, whereas the crosswalks for Biology and Physical Science are in the process of being developed.

This study will have two phases:

- Phase 1 = the evaluation criteria for conducting the item alignment analysis
- Phase 2 = the actual development and reporting of the item alignment analysis

## 2. Evaluation Criteria

The crosswalks identified corresponding standards between the old and new standards to communicate how the existing standards relate to the new Missouri Learning standards. To accomplish this, a set of criteria will be used by assessment specialists to match items aligned to the old standards to the new standards. In other words, they will determine matches, or sets of decisions that pair each item with the single best objective from an identified set of standards. The crosswalks will assist in making the decision to the pairing of items with the appropriate new objective. This matching is necessary in order to:

- Establish the number of items that have a match
- Determine the areas of the blueprint that have item matches
- Identify the standards in the blueprint that do not have item matches

Questar proposes to use the following criteria for reviewing the crosswalks and determining which items are eligible for realignment and requests feedback from DESE and the Technical Advisory Committee (TAC).

- Review of the crosswalks and notation of the following:
  - One-to-one alignment
  - One-to-many alignment

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<sup>1</sup> <http://dese.mo.gov/college-career-readiness/curriculum/missouri-learning-standards-update>

- Many-to-one alignment
- Suggested changes to crosswalks for alignment of items in Questar-accessible item banks to the new standards.
- Strength of match to the standards (i.e., full alignment, partial alignment, duo alignment, and no alignment)
- Review of most recent classical statistics for each item

Additional considerations will be made about alignment regarding the blueprints. These will include:

- An agreed upon number of points across the assessment should align to each reporting category (the minimum recommendation is 6 points).
- Point values are often assigned to standards by percentage ranges and not a fixed number (e.g. Standard 1 is 12–15% of the points).
- The number of points across a reporting category should be proportional to the amount of standards within the reporting categories. Questar will discuss this with DESE to receive further clarification of their expectations for the number of points per reporting category.
- Each standard contains expectations that require varying levels of Depth of Knowledge (DOK). The items aligned to the standard should reflect this variation.
- Standards often contain more than one goal that is to be measured. The items aligned to the standard should span these goals whenever possible.
- The item types written to a standard should represent the need of the standard and allow students to engage with the item in a way that measures the standard as completely as possible.

### **3. Item and Standard Alignment Report**

The results of this study will be provided to DESE in an item and standard alignment study report that will include:

- In-depth analysis of alignment with information guided by the evaluation criteria included, either by item or by sets of items as applicable
- Number of items involved in the review of each content area, including the following information about each item:
  - Information available for the items
  - Item classical statistics (e.g., p-value and point-biserial correlation)
  - Most recent year and form where the item appeared
  - DOK
  - Correct answer
  - Standard alignment(s)
  - Reporting category alignment

### **4. Items Included in this Study**

Table 4.1 presents the approximate number of items that will be included in this study. These item counts reflect the number of items Questar has tested over the past few

years on each of the MO EOC assessments. Item types for the MO EOC assessments include the following:

- Selected-response (SR)
- Performance event (PE)
- Writing prompt (WP)—English I and English II only

**Table 4.1. Number of Items in this Study**

Content Area	Item Type	#Items
Algebra I	SR	450
	PE	9
Algebra II	SR	450
Geometry	SR	280
Biology	SR	282
	PE	72
Physical Science	TBD	TBD
English I	SR	245
	WP	7
English II	SR	423
	WP	9
Am. History	SR	300
Government	SR	300
<b>Total</b>		<b>2,827</b>