

Grade 4 Mathematics Standards Coverage

Reporting Category	Standard	% of Test
Operations and Algebraic Thinking	MAFS.4.OA.1.3	21
	MAFS.4.OA.1.1	
	MAFS.4.OA.1.2	
	MAFS.4.OA.2.4	
	MAFS.4.OA.3.5	
	MAFS.4.OA.1.b Also Assesses MAFS.4.OA.1.a	
Numbers and Operations in Base Ten	MAFS.4.NBT.1.1	21
	MAFS.4.NBT.1.2	
	MAFS.4.NBT.1.3	
	MAFS.4.NBT.2.4	
	MAFS.4.NBT.2.5	
	MAFS.4.NBT.2.6	
Numbers and Operations – Fractions	MAFS.4.NF.1.1	25
	MAFS.4.NF.1.2	
	MAFS.4.NF.2.3	
	MAFS.4.NF.2.4	
	MAFS.4.NF.3.5	
	MAFS.4.NF.3.6	
	MAFS.4.NF.3.7	
Measurement, Data, and Geometry	MAFS.4.MD.1.1	33
	MAFS.4.MD.1.2	
	MAFS.4.MD.1.3	
	MAFS.4.MD.2.4	
	MAFS.4.MD.3.5 Also Assesses MAFS.4.MD.3.6	
	MAFS.4.MD.3.7	
	MAFS.4.G.1.1	
	MAFS.4.G.1.2	
	MAFS.4.G.1.3	
Total Standard Groupings	28	100

Critical areas of focus were included in the determination of the percentage for each reporting category.

Percentage of Points by Depth of Knowledge Level

Grade/Course	DOK Level 1	DOK Level 2	DOK Level 3
3–8	10%–20%	60%–80%	10%–20%
Algebra 1	10%–20%	60%–80%	10%–20%
Algebra 2	10%–20%	60%–80%	10%–20%
Geometry	10%–20%	60%–80%	10%–20%

CPALMS coordinated the development of common definitions using Dr. Norman Webb’s model for Depth of Knowledge. These definitions serve as the cornerstone for the rating of the Mathematics and English Language Arts Standards available on CPALMS.

Because the DOK model of content complexity was designed primarily as a framework for aligning content standards and assessments, it is important to distinguish between the DOK rating for a given standard and the possible DOK ratings for assessment items designed to address the standard. The DOK level for an individual content standard is intended to represent the typical performance level of cognitive complexity that a learning activity or assessment item associated with that standard might entail. This is particularly important for assessment purposes, since 50% or more of assessment items associated with a given standard should meet or exceed the DOK level of the standard.

For information about content complexity rating, please visit CPALMS at <http://www.cpalms.org/standards/dok.aspx>.

For information about the content complexity rating for each standard, please visit CPALMS and click the applicable content area by grade at <http://www.cpalms.org/Public/search/Standard#0>. A drop-down menu for each strand and cluster includes the content complexity rating for each standard.

Test Length

This table provides the approximate range for the number of items on each test.

Grade/Course	Number of Items
3	60–64
4	60–64
5	60–64
6	62–66
7	62–66
8	62–66
Algebra 1	64–68
Algebra 2	64–68
Geometry	64–68

Note: Approximately 6–10 items on all of the tests listed above are experimental (field test) items and are included in the ranges above but are not included in students' scores.

Sessions and Times

Grade/Course	Administration Time	Number of Sessions*	Computer-Based in 2016
3	160 minutes	2	No
4	160 minutes	2	No
5	160 minutes	2	Yes
6	180 minutes	3	Yes
7	180 minutes	3**	Yes
8	180 minutes	3**	Yes
Algebra 1	180 minutes	2**	Yes
Algebra 2	180 minutes	2**	Yes
Geometry	180 minutes	2**	Yes

*All sessions are administered over two days.
 **Session 1 is the non-calculator portion of each assessment.

Percentage of Computer-Based Test Composed of Technology-Enhanced Items

Grade/Course	Percentage Range
Grades 5-8 Mathematics*	25%–50%
Algebra 1, Algebra 2, Geometry EOCs	40%–60%

* Grades 3 and 4 Mathematics tests, once computer based, will also be composed of 25%–50% TEIs.

Florida Standards Assessments

Technology-Enhanced Item Descriptions

The Florida Standards Assessments (FSA) are composed of test items that include traditional multiple-choice items, items that require students to type or write a response, and technology-enhanced items (TEI). Technology-enhanced items are computer-delivered items that require students to interact with test content to select, construct, and/or support their answers.

Currently, there are nine types of TEIs that may appear on computer-based assessments for FSA Mathematics. For Grades 3 and 4 assessments, which will be paper-based tests in 2015-2016, and for students with an IEP or 504 plan that specifies a paper-based accommodation, TEIs will be modified or replaced with test items that can be scanned and scored electronically.

For samples of each of the item types described below, see the [FSA Training Tests](#).

Technology-Enhanced Item Types – Mathematics

1. **Editing Task Choice** – The student clicks a highlighted word or phrase, which reveals a drop-down menu containing options for correcting an error as well as the highlighted word or phrase as it is shown in the sentence to indicate that no correction is needed. The student then selects the correct word or phrase from the drop-down menu. For paper-based assessments, the item is modified so that it can be scanned and scored electronically. The student fills in a circle to indicate the correct word or phrase.
2. **Editing Task** – The student clicks on a highlighted word or phrase that may be incorrect, which reveals a text box. The directions in the text box direct the student to replace the highlighted word or phrase with the correct word or phrase. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
3. **Hot Text** –
 - a. **Selectable Hot Text** – Excerpted sentences from the text are presented in this item type. When the student hovers over certain words, phrases, or sentences, the options highlight. This indicates that the text is selectable (“hot”). The student can then click on an option to select it. For paper-based assessments, a “selectable” hot text item is modified so that it can be scanned and scored electronically. In this version, the student fills in a circle to indicate a selection.
 - b. **Drag-and-Drop Hot Text** – Certain numbers, words, phrases, or sentences may be designated “draggable” in this item type. When the student hovers over these areas, the text highlights. The student can then click on the option, hold down the mouse button, and drag it to a graphic or other format. For paper-based assessments, drag-and-drop hot text items will be replaced with another item type that assesses the same standard and can be scanned and scored electronically.

4. **Open Response** – The student uses the keyboard to enter a response into a text field. These items can usually be answered in a sentence or two. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
5. **Multiselect** – The student is directed to select all of the correct answers from among a number of options. These items are different from multiple-choice items, which allow the student to select only one correct answer. These items appear in the online and paper-based assessments.
6. **Graphic Response Item Display (GRID)** – The student selects numbers, words, phrases, or images and uses the drag-and-drop feature to place them into a graphic. This item type may also require the student to use the point, line, or arrow tools to create a response on a graph. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
7. **Equation Editor** – The student is presented with a toolbar that includes a variety of mathematical symbols that can be used to create a response. Responses may be in the form of a number, variable, expression, or equation, as appropriate to the test item. For paper-based assessments, this item type may be replaced with a modified version of the item that can be scanned and scored electronically or replaced with another item type that assesses the same standard and can be scanned and scored electronically.
8. **Matching Item** – The student checks a box to indicate if information from a column header matches information from a row. For paper-based assessments, this item type may be replaced with a modified version of the item that can be scanned and scored electronically or replaced with another item type that assesses the same standard and can be scanned and scored electronically.
9. **Table Item** – The student types numeric values into a given table. The student may complete the entire table or portions of the table depending on what is being asked. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.