

Reporting Category Statements B.E.S.T. Standards: Mathematics

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Introduction

Students who participate in one or more of Florida's statewide, standardized assessments in grades 3–10 and/or end-of-course (EOC) assessments in Algebra 1, Geometry, Civic, U.S. History, and Biology 1 will receive a detailed score report that is unique to computer-adaptive assessments for each assessment. Each report will contain detailed information about the student's performance, narratives regarding strengths and weaknesses, and suggestions as to steps parents/guardians can take to help students progress in their learning. The information in each report is intended primarily for students and families and is not intended to replace classroom instruction.

The most detailed narrative is provided at the *reporting category* level. Reporting categories refer to major groupings of content and skills, such as Reading Informational Text or Reading Prose and Poetry in English Language Arts (ELA); Number Sense and Operations with Whole Numbers or Algebraic Reasoning in Mathematics; Nature of Science in Science; and Roles, Rights, and Responsibilities in Social Studies; among others. For each of the reporting categories, three tiers of text have been created based on state academic standards and informed by the Achievement Level Descriptors (ALDs) that were written by Florida educators. These tiers include *Below Expectations*, *At/Near Expectations* or *On Grade Level*, and *Above Expectations*. These reports classify student performance into one of the three tiers based on student responses to items that measure the benchmarks associated with that reporting category. Individual benchmark codes can be found in a report beneath the name of the correlated reporting category. Each student's report is tailored to provide specific information based on which of the three tiers that each reporting category score falls into. This document provides the complete set of narratives so that stakeholders can see expectation progressions within a reporting category and, if appropriate, across grades.

Each description included in these reports and the accompanying next steps were drafted by panels of Florida educators and reviewed by larger Florida educator committees facilitated by EdCount, LLC, and consisting of Florida educators, specialists from the Bureau of Standards and Instructional Support and other Florida Department of Education personnel.

It is important to keep in mind that a student's overall score provides the most valid and reliable evidence of what the student knows and can do with respect to the state academic standards. Due to the relatively small size of each reporting category, neither individual nor combined reporting category performance should be used to infer overall performance.

For more information on Florida's statewide, standardized assessments, please see the [Statewide Assessments Guide](#). Please direct questions and comments about these reports to Assessment@fldoe.org.

Additional Resources

The following resources are available to support understanding of the test design for Florida's statewide, standardized assessments and the skills outlined in the state academic standards.

[B.E.S.T. Standards Achievement Level Descriptions](#)

[Florida's B.E.S.T. Standards: Mathematics](#)

[FAST Mathematics and B.E.S.T. EOC Test Design Summary](#)

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Geometry Reporting Category Statements

Logic, Relationships, and Theorems See Benchmarks for Excellent Student Thinking 912.GR.1.1, 912.GR.1.2, 912.GR.1.3, 912.GR.1.4, 912.GR.1.5, 912.GR.6.1, 912.GR.6.2, 912.GR.6.3, 912.GR.6.4, 912.LT.4.3, 912.LT.4.10			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
What These Results Mean	For example, your learner may be able to: - Identify a missing statement or reason when completing proofs about triangle congruence and triangle similarity. - Solve simple problems involving numerical expressions regarding lines and angles, triangles, parallelograms, and trapezoids. - Identify the hypothesis and conclusion of a conditional statement.	For example, your learner may be able to: - Identify up to two missing statements and reasons when completing proofs about lines and angles, triangle congruence, triangle similarity, parallelograms, and trapezoids. - Solve multi-step problems with algebraic and/or numerical expressions set in mathematical contexts about lines and angles, triangles, parallelograms, trapezoids, angles formed in circles, lengths of chords in circles, areas of the sectors of circles, and arc lengths. - Identify the inverse and converse of a conditional statement and write a biconditional statement as two conditional statements.	For example, your learner may be able to: - Complete proofs about lines and angles, triangle congruence, triangle similarity, parallelograms, and trapezoids. - Solve real-world problems involving algebraic expressions regarding lines and angles, triangles, parallelograms, trapezoids, angles formed in circles, lengths of chords in circles, areas of the sectors of circles, and arc lengths. - Write the contrapositive of a conditional statement and justify the validity of arguments including using counterexamples.
Next Steps	For example, have your learner: - Complete proofs to show relationships when given all statements and reasons. - Use all triangle congruence or similarity postulates or theorems. - Solve multi-step algebraic and/or numerical problems using lines, angles, triangles, parallelograms, and trapezoids using algebraic expressions as measurements.	For example, have your learner: - Practice completing proofs without all steps represented leading to writing a complete proof on their own. - Solve real-world problems involving lines, angles, triangles, parallelograms, trapezoids, and circles. - Judge the validity of arguments including using counterexamples.	For example, have your learner: - Analyze proofs to determine a potential error and be able to justify that error with a correct statement. - Work toward creating equations or expressions that represent relationships involving arcs and related angles, triangles or quadrilaterals inscribed in a circle, and arc lengths and areas of sectors of a circle.

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Logic, Relationships, and Theorems See Benchmarks for Excellent Student Thinking 912.GR.1.1, 912.GR.1.2, 912.GR.1.3, 912.GR.1.4, 912.GR.1.5, 912.GR.6.1, 912.GR.6.2, 912.GR.6.3, 912.GR.6.4, 912.LT.4.3, 912.LT.4.10			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
	- Identify and use counterexamples of a statement in order to disprove an invalid statement. - Solve problems involving angles formed in circles, lengths of chords in circles, and areas of the sectors of circles.		

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Congruence, Similarity, and Constructions See Benchmarks for Excellent Student Thinking 912.GR.1.6, 912.GR.2.1, 912.GR.2.2, 912.GR.2.3 (including 912.GR.2.6 and 912.GR.2.8), 912.GR.2.5, 912.GR.4.3, 912.GR.5.1, 912.GR.5.2, 912.GR.5.3			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
What These Results Mean	For example, your learner may be able to: - Solve congruence and similarity problems that include one algebraic expression set in a mathematical context. - Determine the dilation scale factor given the area of corresponding faces or the surface area of a solid. - Identify, describe, and represent translations and reflections over axes algebraically. - Identify the result of a given geometric construction.	For example, your learner may be able to: - Solve congruence and similarity problems that include algebraic expressions set in a mathematical context. - Determine the effect of a dilation on the area of two-dimensional figures and the surface area of three-dimensional figures. - Identify and describe missing steps of a given geometric construction. - Draw transformed figures on a coordinate plane when given up to three transformations (translations, reflections, and rotations).	For example, your learner may be able to: - Solve congruence and similarity problems that include algebraic expressions set in a real-world context. - Determine the effect of a dilation on the volume of three-dimensional figures. - Perform and describe a sequence of transformations (translations, reflections, rotations, and dilations). - Complete geometric constructions. - Analyze errors in worked examples and make appropriate corrections.
Next Steps	For example, have your learner: - Solve multi-step congruence and similarity problems that include algebraic expressions. - Identify and perform all types of transformations. - Describe transformations with an algebraic rule. - Perform geometric constructions.	For example, have your learner: - Solve real-world congruence and similarity problems. - Determine how dilations affect the volume of three-dimensional figures. - Identify and perform a sequence of transformations, including when a figure is reflected over a line other than the axes.	For example, have your learner: - Apply mathematical understandings to real-world scenarios and analyze which approaches are best for solving problems. - Apply learned knowledge and skills to situations in other fields (arts, science, technology, etc.).

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Measurement and Coordinate Geometry See Benchmarks for Excellent Student Thinking 912.GR.3.2, 912.GR.3.3 (including 912.GR.3.1), 912.GR.3.4, 912.GR.4.1, 912.GR.4.2, 912.GR.4.4, 912.GR.4.5, 912.GR.4.6, 912.GR.7.2, 912.GR.7.3, 912.T.1.2 (including MA.912.T.1.1)			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
What These Results Mean	For example, your learner may be able to: - Use coordinate geometry to: - Classify triangles and right quadrilaterals in mathematical contexts. - Solve mathematical problems involving lines, triangles, and midpoints of segments and slope. - Identify two-dimensional cross sections of right cylinders and right rectangular prisms. - Identify the equation of a circle given the center and radius. - Solve mathematical problems involving the volume of right cylinders, right pyramids, and right prisms and the surface area of right pyramids and right prisms. - Use trigonometric ratios and the Pythagorean Theorem to determine the missing side of a right triangle.	For example, your learner may be able to: - Use coordinate geometry to: - Classify triangles and quadrilaterals in mathematical contexts. - Calculate the area or perimeter of polygons in both mathematical and real-world contexts. - Identify two-dimensional cross sections of right cylinders and right prisms. - Solve mathematical and real-world problems involving the area of quadrilaterals or triangles, including population density. - Solve mathematical and real-world problems about the volume and surface area of right cylinders, right pyramids, and right cones. - Create an equation and graph a circle when completing the square is not required. - Use trigonometric ratios to solve for missing angles and/or sides of a right triangle.	For example, your learner may be able to: - Use coordinate geometry to: - Solve problems involving triangles and quadrilaterals in a real-world context. - Calculate the area of composite polygons in both mathematical and real-world contexts. - Identify cross sections of three-dimensional figures, including when the cross section is not parallel or perpendicular to the base of the figure. - Solve mathematical and real-world problems involving the area of two-dimensional figures including population density. - Solve mathematical and real-world problems about the volume and surface area of three-dimensional figures, including composite figures. - Graph and solve real-world problems using equations of circles. - Use trigonometric ratios and the Pythagorean Theorem to solve for missing angles and/or sides of a right triangle in a real-world context.
Next Steps	For example, have your learner: - Use coordinate geometry to calculate the area and perimeter of polygons. - Create equations of circles using key features such as radius and center.	For example, have your learner: - Use coordinate geometry to calculate the area and perimeter of composite figures. - Solve real-world problems involving the volume and surface area of three-	For example, have your learner: Extend knowledge of trigonometry functions to solve missing sides of non-right triangles.

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Measurement and Coordinate Geometry See Benchmarks for Excellent Student Thinking 912.GR.3.2, 912.GR.3.3 (including 912.GR.3.1), 912.GR.3.4, 912.GR.4.1, 912.GR.4.2, 912.GR.4.4, 912.GR.4.5, 912.GR.4.6, 912.GR.7.2, 912.GR.7.3, 912.T.1.2 (including MA.912.T.1.1)			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
	- Solve problems involving area, surface area, and volume that are set in both mathematical and real-world contexts. - Use trigonometric ratios to solve for missing angles of a right triangle.	dimensional figures, including composite figures. - Solve problems involving circles using key features such as radius, diameter, center, domain, and range. - Solve real-world problems involving trigonometric ratios and the Pythagorean Theorem. - Identify three-dimensional objects generated by rotations of two-dimensional figures.	Apply learned knowledge and skills to situations in other fields (arts, science, technology, etc.).

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