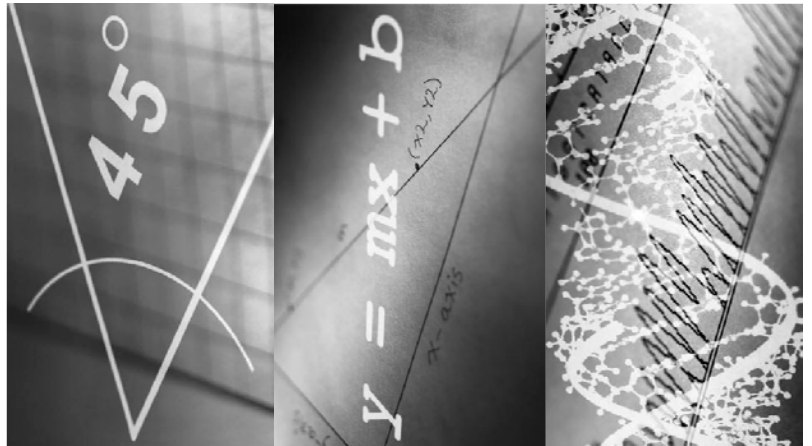


**Understanding Florida  
End-of-Course  
Assessment Reports**

**Spring 2012**



**Florida Department of Education**



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## ***Introduction***

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This booklet has been prepared to help you understand the 2012 **Florida End-of-Course (EOC) Assessment** scores and reports. It includes explanations of the Florida EOC Assessments, EOC assessment scores and reports, and the **Next Generation Sunshine State Standards (NGSSS)** content assessed on the Algebra 1, Biology 1, and Geometry EOC Assessments, as well as a glossary of the terms used in this document.

Note: Terms defined in the glossary are cross-referenced and appear in **bold text** the first time they are referenced in a paragraph.

### **Purpose of the Florida EOC Assessments**

In accordance with Section 1008.22, Florida Statutes, the Florida Department of Education (FDOE) has implemented **EOC assessments** for certain courses administered at the middle and high school levels. The **Florida EOC Assessments** are designed to measure student achievement of the **NGSSS** for specific courses, as outlined in their **course descriptions** (content knowledge and skills, as specified in the **NGSSS benchmarks**, taught in a course). These assessments are part of Florida's Next Generation Strategic Plan for increasing student achievement and improving college and career readiness. The first assessment to begin the transition to EOC testing in Florida was the 2011 Algebra 1 EOC Assessment. Geometry and Biology 1 EOC Assessments were administered for the first time in spring 2012. The schedule for implementing additional Florida EOC Assessments is posted at <http://www.fldoe.org/asp/k12memo/pdf/tngcbtf.pdf>. Course descriptions are posted at <http://www.floridastandards.org/Courses/CourseDescriptionSearch.aspx>.

Students will take the **EOC assessments** toward the completion of relevant courses. Typically, each EOC assessment will be administered in the last three weeks of a course. During the first year of implementation, each EOC assessment will only be administered during the spring semester. After the first school year of implementation, each EOC assessment will be administered at the conclusion of both the fall and spring semesters to accommodate courses that conclude at the end of each semester. In addition to the fall and spring administrations, a summer administration will take place for each EOC assessment after **Achievement Levels** have been established.

### **Reporting Florida EOC Assessment Scores**

Florida EOC Assessments will be reported using **scale scores** and **Achievement Levels**. However, the Department cannot establish the Achievement Levels until a baseline test administration has occurred. This means that each time a new **EOC assessment** is administered for the first time (such as the 2012 Biology 1 EOC Assessment), the reporting of student assessment results will be limited to scale scores, statewide **means**, and other **normative data**. Students will receive a score on a scale of 20-80, known as a **T-score scale**. On this scale, a score of approximately 50 is the statewide average and the standard deviation is 10. Individual Student Reports (ISRs) will indicate whether the student's score falls within the highest, middle, or lowest level compared to other students in Florida.

Once **Achievement Levels** are established for an **EOC assessment**, the passing score for all assessments required for course credit is the minimum **scale score** in Achievement Level 3. Level 4 or higher indicates that a student is high achieving and has the potential to meet college-readiness standards by the time he or she graduates from high school.

## ***Students Tested in 2012***

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For all assessments, tested students include English language learner (ELL) and exceptional student education (ESE) students enrolled in the courses. Accommodations are available for eligible ELL and ESE students.

### **Algebra 1 EOC Assessment**

The Algebra 1 EOC Assessment was administered to all students completing any of the following courses:

- Algebra 1 – 1200310
- Algebra 1 Honors – 1200320
- Algebra 1B – 1200380
- Pre-AICE Mathematics 1 – 1209810
- IB Middle Years Program Algebra 1 Honors – 1200390

The Algebra 1 EOC Assessment was administered to students at the end of the semester in which the course was completed (e.g., a student in block scheduling who completed a course at the end of semester one took the assessment in the winter).

### **Biology 1 EOC Assessment**

The Biology 1 EOC Assessment was administered to all students completing any of the following courses:

- Biology 1 – 2000310
- Biology 1 Honors – 2000320
- Pre-AICE Biology – 2000322
- Biology Technology – 2000430
- Biology 1 PreIB – 2000800
- IB Middle Years Program Biology Honors – 2000850
- Integrated Science 3 – 2002440
- Integrated Science 3 Honors – 2002450

Students who entered grade 9 in the 2011-12 school year and were enrolled in and completing AP Biology 1 to meet the Biology 1 credit requirement for high school graduation also took the Biology 1 EOC Assessment.

Students who completed one of the above courses at any time during the 2011-12 school year took the Biology 1 EOC Assessment in the spring.

### **Geometry EOC Assessment**

The Geometry EOC Assessment was administered to all students completing any of the following courses:

- Geometry – 1206310
- Geometry Honors – 1206320
- IB Middle Years Program Geometry Honors – 1206810
- Pre-AICE Mathematics 2 – 1209820

Students who completed one of the above courses during the 2011-12 school year took the Geometry EOC Assessment in the spring.

### **U.S. History EOC Assessment Field Test**

The U.S. History EOC Assessment Field Test was administered to students in grades 9-12 enrolled in U.S. History in districts with schools selected for the sample. The **field test** was administered to collect information on test questions prior to their use in future test administrations. Student results are not reported for field tests.

# Florida EOC Assessments

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## Algebra 1 EOC Assessment

The first course to transition to EOC testing was Algebra 1. The Algebra 1 EOC Assessment was administered statewide for the first time in spring 2011, after field testing in 2010. **Achievement Levels** were established for the Algebra 1 EOC Assessment by the State Board of Education on December 19, 2011, and are being reported for the first time in 2012. The spring test administration window was from April 30 to May 18, 2012. Districts could use up to two consecutive weeks within this window to accommodate for **computer-based testing** needs; however, Algebra 1 testing could not begin in a district until Geometry and Biology 1 testing had been completed.

## Biology 1 and Geometry EOC Assessments

The Biology 1 and Geometry EOC Assessments were administered for the first time this year, after field testing in 2011. The spring test administration window for both Biology 1 and Geometry was from April 23 to May 11, 2012. Districts could use up to two consecutive weeks within this established window, per subject, to accommodate for **computer-based testing** needs; however, districts were required to complete Geometry testing before they could begin Biology 1 testing.

## Test Sessions

The Algebra 1, Biology 1, and Geometry EOC Assessments are administered in one 160-minute session with a 10-minute break after the first 80 minutes (individual breaks are allowed as needed). Although the assessments are scheduled for a 160-minute session, any student not finished by the end of the 160 minutes may continue working; however, testing must be completed within the same school day.

## Testing Format

All Florida EOC Assessments are administered via a **computer-based testing** platform. Paper-based versions (regular print, braille) are provided for students with disabilities who require allowable accommodations, as specified in their Individual Educational Plans (IEPs) or Section 504 plans. Large print, zoom, color contrast, and screen reader are computer-based accommodations available for students whose IEPs or Section 504 plans indicate these accommodations.

For the Algebra 1 and Biology 1 EOC Assessments, students may request the use of a hand-held four-function calculator if, after participating in a practice test, they prefer not to use the online calculator for testing. For the Geometry EOC Assessment, districts may decide whether to permit students who request them to use approved hand-held scientific calculators; the FDOE does not provide scientific calculators to districts. For Algebra 1, Biology 1, and Geometry, students are provided four-page work folders to use as scratch paper.

## Question Formats

- **Multiple-choice questions** appear on all Florida EOC Assessments. Students choose the best answer from four answer choices.
- **Fill-in response questions** appear on Algebra 1 and Geometry EOC Assessments. Students solve a problem for which the answer is numerical. Students type or “fill-in” the digits 0-9 or the symbols for a decimal point, fraction bar, or negative sign in the answer boxes provided.

Each form of the Algebra 1 and Geometry EOC Assessments includes 35-40 **multiple-choice** and 20-25 **fill-in response** questions. Each form of the Biology 1 EOC Assessment includes 60-66 multiple-choice questions. Approximately six to 10 of these questions, which are also referred to as test **items**, are experimental (**field test**) questions and are NOT used to calculate student scores. Examples of each type of question format are provided on pages 20-26.

## 2012 Algebra 1, Biology 1, and Geometry EOC Assessment Forms

There were four test forms of the Algebra 1, Biology 1, and Geometry EOC Assessments in spring 2012. These forms are coded as Forms A, B, C, and D. For each EOC assessment, each form contained questions common to all four forms, as well as questions unique to each form and **field-test questions**. All four forms of the Algebra 1 and Geometry EOC Assessments contained 60-65 questions, and all four forms of the 2012 Biology 1 EOC Assessment contained 60-66 questions. Table 1 provides the percentage of questions in each **reporting category**.

**Table 1: Reporting Category Percentages for 2012 Florida EOC Assessments**

Assessment	Category	Percentage
Algebra 1	Functions, Linear Equations, and Inequalities	55
	Polynomials	20
	Rationals, Radicals, Quadratics, and Discrete Mathematics	25
Biology 1	Molecular and Cellular Biology	35
	Classification, Heredity, and Evolution	25
	Organisms, Populations, and Ecosystems	40
Geometry	Two-Dimensional Geometry	65
	Three-Dimensional Geometry	20
	Trigonometry and Discrete Mathematics	15

The test forms match the test design stipulated in the Test Design Summary posted at <http://fcad.fldoe.org/pdf/designsummary.pdf>.

During test construction, the four test forms for each EOC assessment were developed by experts using operational and field-test statistics so that they would be comparable in difficulty. These four forms for each EOC assessment were then reviewed by committees of mathematics and science educators who were trained in Dr. Norman Webb's alignment criteria prior to their review.<sup>1</sup> Committee members conducted a comprehensive review of the test forms and determined that they are fair assessments aligned to the **course descriptions** for each EOC assessment. The committees did not recommend any changes to the test forms.

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<sup>1</sup> Information regarding Dr. Norman Webb's alignment criteria is available via the Web Alignment Tool (WAT) at <http://wat.wceruw.org/index.aspx> and the Adding Value to Mathematics and Science Partnership Evaluations website at <http://facstaff.wcer.wisc.edu/normw/>.

## Florida EOC Assessment Scores

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Florida EOC Assessments will be reported using **scale scores** and **Achievement Levels**. However, the Department cannot establish the Achievement Levels until a baseline test administration has occurred. This means that each time a new **EOC assessment** is administered for the first time (such as the 2012 Biology 1 EOC Assessment), the reporting of student assessment results will be limited to scale scores, statewide **means**, and other **normative data**.

### Achievement Levels

**Achievement Levels** describe the success a student has achieved with the content assessed. Achievement Levels range from 1 to 5, with Level 1 being the lowest and Level 5 being the highest. Level 3 indicates satisfactory performance. If a student is required to pass an EOC assessment to earn course credit, the passing score is the minimum **scale score** in Achievement Level 3. Level 4 or higher indicates the student is high achieving and has the potential to meet college-readiness standards by the time the student graduates from high school. Achievement Levels for each **EOC assessment** will be established by the State Board of Education according to the schedule provided in Table 2.

**Table 2: School Year Achievement Levels Will Be Established**

School Year	Florida EOC Assessment
2012-13	Biology 1 EOC Assessment Geometry EOC Assessment
2013-14	U.S. History EOC Assessment
2014-15	Civics EOC Assessment

The following **Achievement Level Policy Definitions**, which describe student success with the **Next Generation Sunshine State Standards (NGSSS)**, apply to all Florida EOC Assessments:

- Level 5** Students at this level demonstrate mastery of the most challenging content of the *Next Generation Sunshine State Standards*.
- Level 4** Students at this level demonstrate an above satisfactory level of success with the challenging content of the *Next Generation Sunshine State Standards*.
- Level 3** Students at this level demonstrate a satisfactory level of success with the challenging content of the *Next Generation Sunshine State Standards*.
- Level 2** Students at this level demonstrate a below satisfactory level of success with the challenging content of the *Next Generation Sunshine State Standards*.
- Level 1** Students at this level demonstrate an inadequate level of success with the challenging content of the *Next Generation Sunshine State Standards*.

### Algebra 1 EOC Assessment Scores

Beginning in 2012, students will receive a **scale score** on the new Algebra 1 EOC Assessment score scale of 325 – 475. The success a student has achieved with the **NGSSS** assessed by the Algebra 1 EOC Assessment is indicated by **Achievement Levels** that range from 1 (lowest) to 5 (highest). Level 3 indicates satisfactory performance. Students who entered grade 9 in the 2011-12 school year will be required to earn a score in Achievement Level 3 or higher in order to earn high school credit. This requirement also applies to middle school students seeking high school course credit for Algebra 1 or an equivalent. Level 4 indicates the student is high achieving and has the potential to meet college-readiness standards by the time the student graduates from high school. Table 3 provides the scale score range for each Achievement Level.



**Table 3: Achievement Levels for the Algebra 1 EOC Assessment Scale Scores (325 to 475)**

Level 1	Level 2	Level 3	Level 4	Level 5
325-374	375-398	399-424	425-436	437-475

**Biology 1 and Geometry EOC Assessment Scores**

For the 2012 Biology 1 and Geometry EOC Assessments, students receive a score on a scale of 20-80. This scale, which will only be used for the first statewide test administration of each EOC assessment, is a special scale known as a **T-score scale**, and the score that students receive is called a **T score**. On the T-score scale, a score of approximately 50 is the statewide average and all interpretations are norm-referenced interpretations. For example, on this scale, scores around 60 could be considered above average, and scores around 40 could be considered below average. Similarly, scores around 70 could be considered superior, and scores around 30 could be considered inferior. Individual Student Reports (ISRs) indicate whether the student’s score falls within the high, middle, or low levels as compared to other students in Florida.

**Passing Score Requirements for Florida EOC Assessments**

Once **Achievement Levels** are established for an **EOC assessment**, the passing score for all assessments required for course credit is the minimum **scale score** in Achievement Level 3 (AL3). Students must pass the EOC assessments listed in Table 4 to earn course credit. While students do not earn course credits in middle school, this requirement applies to middle school students seeking high school course credit for Algebra 1, Biology 1, and Geometry. In addition, passing the Civics EOC Assessment will be required for promotion to high school (grade 9) from the middle grades. Table 4 provides the school year when these requirements begin for students entering grade 9 and for middle school students enrolled in these courses.

**Table 4: Achievement Level 3 Passing Requirement by School Year**

AL3 Requirement Begins for Students Entering Grade 9 and Middle School Students	Florida EOC Assessment
<b>2011-12</b>	Algebra 1 EOC Assessment
<b>2012-13</b>	Biology 1 EOC Assessment Geometry EOC Assessment
<b>2014-15</b>	Civics EOC Assessment

Note: The U.S. History EOC Assessment is not included in this table because according to current statute, students will not be required to earn an AL3 or higher score on the U.S. History EOC Assessment to earn course credit.

**Course Grades**

For students who entered grade 9 in the 2010-11 school year and are enrolled in Algebra 1 or an equivalent course, each student’s Algebra 1 EOC Assessment score must be used to calculate at least 30 percent of his/her final course grade. Districts received a conversion table that may be used to convert the new **scale scores** into **T scores**, which are the scores that were reported in spring 2011. The T scores should then be factored into the student’s course grade in the same manner as in spring 2011.

For students who entered grade 9 in the 2011-12 school year and are enrolled in Geometry or an equivalent course, each student’s Geometry EOC Assessment score must be used to calculate 30 percent of his/her final grade in the course. For students who entered grade 9 in the 2011-12 school year and are enrolled in Biology 1, an equivalent course, or AP Biology 1 to meet the Biology 1 credit requirement for high school graduation, each student’s Biology 1 EOC Assessment score must be used to calculate 30 percent of his/her final grade in the course. The method for applying this requirement is determined and applied by each school district. Examples of possible strategies for assigning meaning to **T scores** in order to calculate students’ course grades are provided in the memorandum posted at <http://fcad.fldoe.org/eoc/pdf/app11aeocasr.pdf>.

## Equating

Since there are four test forms for each 2012 EOC assessment, student results from all four test forms for an EOC assessment must be compared and, if necessary, adjusted to ensure that the difficulty level of the test is the same for each form. This process, called “**equating**,” takes place after testing when enough student scores are in the system to ensure that a representative sample of student results is available for use in the comparison.

For the Algebra 1 EOC Assessment, there are two main steps in the **equating** process. First, the four different test forms are concurrently calibrated, which places the **state mean** at a score of 400 for all test forms combined, and ensures that the students’ scores across the four test forms are comparable. This means that even if the state mean for each test form differs slightly across forms, this step ensures that the interpretation or meaning of student Algebra 1 EOC Assessment scores on the different forms is the same. Second, the test forms concurrently calibrated in the previous step are also placed on the baseline scale so that the performance of the current year’s students on the Algebra 1 EOC Assessment can be compared to the performance of the initial year’s students on the same assessment. This two-step process ensures that test scores are comparable within and across years.

Through the **equating** process, which places the statewide average, or **state mean**, at a score of approximately 50 for all test forms combined, student scores across the four test forms for each EOC assessment are comparable. This means that even if the state mean for each test form or **content area** differs slightly across the four test forms for each EOC assessment, the equating process ensures that the interpretation or meaning of student **T scores** on the different test forms is the same.

## Content Area Scores

**Content area scores** are the actual number of questions answered correctly within each **reporting category**. These scores are also known as raw scores. Reporting categories represent groups of similar student skills, or **benchmarks**, that are assessed within each subject area. The **state mean** for each reporting category is also provided on reports given to students, schools, and districts to allow for comparisons to average performance statewide. Although the percentage of questions in each **reporting category** differs within a test form, each reporting category comprises the same percentage of students’ final scores across test forms. There are three reporting categories for each of the 2012 EOC assessments. The percentage each reporting category comprises of students’ final scores for each of the 2012 EOC assessments is provided in Table 1 on page 7. The content assessed by each EOC assessment is described on pages 21-26.

It is important to identify the comparisons at the content-area-score level that yield valid interpretations of student performance so educators may gather reliable information from the EOC assessments. When comparing **content area scores**, it is important to keep in mind that there are four test forms for each EOC assessment. **Mean** content area scores for each test form might be different; therefore, content area scores should not be compared across test forms. The **equating** process described above only ensures that the **scale scores** and **T scores** on the different test forms have the same meaning and are therefore comparable. The comparisons described in the following paragraphs can be applied in school- and district-level evaluations.

One valid comparison is of performance on a given **content area score** for a specific test form between schools, districts, and the state. For example, a school’s content area score results for Form A can be compared to other schools’, districts’, or the state’s content area score results for Form A. District results can be compared to other district results and state results for the same test form. Since students in any group (school, district, or state) will take the same set of test questions for the same test form in a given year, their results are comparable regardless of varying **item** difficulty at the content-area level.

In Table 5, students in two schools (Sunshine and Evergreen) and students in the district (Coastal) can be compared to students in the state, based on their performance on the Algebra 1 EOC Assessment Form A, **Reporting Category 1**.

**Table 5: Mean Percentage Correct for the Algebra 1 EOC Assessment Form A, Reporting Category 1  
2012 School Year (mock data)**

Sunshine High School (mock data)	Evergreen High School (mock data)	Coastal District (mock data)	State of Florida (mock data)
48%	62%	64%	57%

In Table 6 below, 2012 mock results for Evergreen High School are compared to both the district (Coastal) and the state.

**Table 6: Mean Percentage Correct for the Algebra 1 EOC Assessment Form A, 2012 School Year  
Comparison of School to District and School to State (mock data)**

Reporting Category	Evergreen High School (mock data)	Coastal District (mock data)	School/District Difference (mock data)	Evergreen High School (mock data)	State of Florida (mock data)	School/State Difference (mock data)
Reporting Category 1	62%	64%	-2%	62%	57%	5%
Reporting Category 2	64%	57%	7%	64%	63%	1%
Reporting Category 3	70%	72%	-2%	70%	64%	6%

This presentation of data provides another perspective of student performance and program effectiveness. For example, in **Reporting Category 2**, Evergreen High School had a higher **mean** percentage correct statistic than the Coastal District on Form A (64 percent versus 57 percent, respectively); however, Evergreen High School's results were comparable to the state's on Form A (64 percent versus 63 percent, respectively). If this variance remains consistent over time when comparing the same test form, there would be evidence to support identifying and sharing best practices at Evergreen High School with the rest of the district.

Another meaningful finding from Table 6 is illustrated in **Reporting Category 3** results. In this **content area**, Evergreen High School had a slightly lower **mean** percentage correct on Form A than Coastal District (70 percent versus 72 percent, respectively); however, this same statistic was higher than that of the state (70 percent versus 64 percent, respectively). It would be easy to miss the fact that, while Evergreen High School's performance on Reporting Category 3 was lower than that of the district, the performances of both were substantially higher than the state's performance. If this is the case for all three test forms, then it is likely that targeting additional resources to improve performance in Reporting Category 3 should be a lower priority.

Another type of valid comparison is the trend of any of the aforementioned comparisons (e.g., school to school, school to district); however, trend data for each EOC assessment will not be available until three test administrations have occurred.

**The Florida Department of Education encourages educators to use EOC assessment results in any way that is statistically appropriate. The comparisons that have been described in this section provide possibilities for evaluation at the school and district levels.**

## EOC Assessment Student, School, District, and State Reports

**Table 7: Florida EOC Assessment Reports**

Florida EOC Assessment Report Title		Page of Report Description
Student Reports	Algebra 1 EOC Assessment Student Report	14
	Biology 1 EOC Assessment Student Report	15
	Geometry EOC Assessment Student Report	15
School Reports	Algebra 1 EOC Assessment School Report of Students	16
	Biology 1 EOC Assessment School Report of Students	17
	Geometry EOC Assessment School Report of Students	17
District Reports	Algebra 1 EOC Assessment District Report of Schools	18
	Biology 1 EOC Assessment District Report of Schools	19
	Geometry EOC Assessment District Report of Schools	19
	Algebra 1 EOC Assessment District Summary	18
	Biology 1 EOC Assessment District Summary	19
	Geometry EOC Assessment District Summary	19
State Reports	Algebra 1 EOC Assessment State Report of Districts	18
	Biology 1 EOC Assessment State Report of Districts	19
	Geometry EOC Assessment State Report of Districts	19
	Algebra 1 EOC Assessment State Summary	18
	Biology 1 EOC Assessment State Summary	19
	Geometry EOC Assessment State Summary	19

## Codes for No Data Reported

The following codes may appear on some student and educator reports.

**NR** (Not Reported) indicates that no data are reported for the student because he or she answered too few questions for that subject or the test was invalidated. Reports containing student results will indicate that no data are reported for one of the following reasons:

- **NR2**—Did Not Meet Attemptedness Criteria
- **NR3**—Marked Do Not Score
- **NR6**—Duplicate Record
- **NR7**—FDOE Hold
- **NR8**—FDOE Invalidated

If a student receives an NR code, the parent or student should consult the student’s designated guidance counselor.

A dash (—) on the reports indicates that no data are reported because fewer than 10 students were tested. To provide meaningful results and to protect the privacy of individual students, data are printed only when the total number of students in a group is at least 10 and when the performance of individuals is not disclosed.

## Algebra 1 EOC Assessment Student Report

Readers should have their *Algebra 1 EOC Assessment Student Report* when reviewing and interpreting information provided in this section.

The *Algebra 1 EOC Assessment Student Report* is a two-page report. The first page provides an explanation of the score requirements and displays the student's Algebra 1 EOC Assessment **Scale Score**. Page 2 provides the student's **content area scores**. The information on both of these pages is translated into Spanish and Haitian Creole.

- 1 Top of Report:** The test, grade, student, school, and district are identified on the top of pages 1 and 2 of the report.
- 2 Introduction:** An introductory note explaining the score requirements, which is translated into Spanish and Haitian Creole, appears beneath the EOC assessment logo and student's identifying information.
- 3 Algebra 1 EOC Assessment Scale Scores:** The graph in the middle of page 1 displays the student's Algebra 1 EOC Assessment **Scale Score** and **Achievement Level**. The graph also shows whether the student passed or did not pass the test. All students entering grade 9 or below in the 2011-12 school year and moving forward must achieve a passing score of 399 or higher to earn course credit. For students who entered grade 9 in the 2010-11 school year, each student's Algebra 1 EOC Assessment score must be used to calculate 30 percent of his/her final grade in the course. The graph displays the score ranges for Achievement Levels 1 through 5. To the right of the graph, a statement indicates whether the student earned a passing score, followed by a statement identifying the student's Algebra 1 EOC Assessment Scale Score and Achievement Level. This information is translated into Spanish and Haitian Creole. A note below the translations describes the range within which a student's Algebra 1 EOC Assessment Scale Score would likely fall if the student were to take the test again without additional instruction. Students who receive additional instruction would likely improve their scores.
- 4 Achievement Levels:** Definitions for **Achievement Levels** 1 through 5 are provided at the bottom of page 1.
- 5 Content Area Scores:** **Content area scores** are explained on page 2 of the report. The top portion of the page provides an explanation of content area scores, which is translated into Spanish and Haitian Creole. The form of the test the student took is indicated above this explanation. The table in the middle of the page provides the results for each content area. The "**Points Earned**" column shows the actual number of points earned in each of the **content areas**. The "**Points Possible**" column provides the total number of points possible for each of the content areas. The "**State Mean**" for each content area is provided on the far right for comparison. The state mean shows the **mean** earned by students across the state on the test form the student took. The content areas assessed, also called **reporting categories**, are defined on the bottom of the page. Spanish and Haitian Creole translations of this information are provided.

## Biology 1 and Geometry EOC Assessments Student Report

Readers should have their *Biology 1 EOC Assessment Student Report* or *Geometry EOC Assessment Student Report* when reviewing and interpreting information provided in this section.

The *Biology 1 EOC Assessment Student Report* and *Geometry EOC Assessment Student Report* are two-page reports. The first page provides an explanation of the assessment and displays the student's **scale score**. Page 2 provides the student's **content area scores**. The information on both of these pages is translated into Spanish and Haitian Creole.

- 1 Top of Report:** The test, grade, student, school, and district are identified on the top of pages 1 and 2 of the report.
- 2 Introduction:** An introductory note explaining the score requirements, which is translated into Spanish and Haitian Creole, appears beneath the EOC assessment logo and student's identifying information.
- 3 Biology 1 and Geometry EOC Assessment Scale Scores:** The graph and table in the middle of page 1 provide the student's score on a scale of 20-80. A table titled "Compared to Other Students" indicates whether the student scored within the lowest, middle, or highest third when compared to other students in the state. The graph also shows the student's results in relation to the **state mean**. To the right of the graph is a statement identifying the student's **scale score**, which is also referred to as a **T score**. This information is translated into Spanish and Haitian Creole. A note below the translations describes the range within which a student's score would likely fall if the student were to take the test again without additional instruction. Students who receive additional instruction would likely improve their scores.
- 4 Content Area Scores:** **Content area scores** are explained on page 2 of the report. The top portion of the page provides an explanation of content area scores, which is translated into Spanish and Haitian Creole. The form of the test the student took is indicated above this explanation. The table in the middle of the page provides the results for each content area. The "**Points Earned**" column shows the actual number of points earned in each of the **content areas**. The "**Points Possible**" column provides the total number of points possible for each of the content areas. The "**State Mean**" for each content area is provided on the far right for comparison. The state mean shows the **mean** earned by students across the state on the test form the student took. The **content areas** assessed, also called **reporting categories**, are defined on the bottom of the page. Spanish and Haitian Creole translations of this information are provided.

## Algebra 1 EOC Assessment School Report of Students

Readers should have their *Algebra 1 EOC Assessment School Report of Students* when reviewing and interpreting information provided in this section. Only authorized district and school personnel may access this report, since it contains confidential student information.

- 1 Top of Report:** The title of the report is printed here. It identifies the subject area and test administration for the data included in the report. The name and number of the district and school are also printed in this area.
- 2 Left Side of Report:** The name and student ID for all students whose tests were submitted for scoring appear in the first two columns. Students are grouped by grade level, which is indicated in the first column. The test form is provided in the third column, and the Algebra 1 EOC Assessment **Scale Score** is provided in the fourth column. For students receiving “NR” in the fourth column, the footnote at the bottom of the report details reasons why the score is not reported (see page 13 for NR codes). The “Passed” column indicates whether a student earned a passing score (Level 3 or above) with a “Y” (Yes) or “N” (No). All students entering grade 9 or below in the 2011-12 school year and moving forward must achieve a passing score of 399 or higher to earn Algebra 1 course credit. For students who entered grade 9 in the 2010-11 school year, each student’s Algebra 1 EOC Assessment score must be used to calculate 30 percent of his/her final grade in the course. Districts received a conversion table that may be used to convert the new scale scores into **T scores**, which are the scores that were reported in spring 2011. The T scores should then be factored into the student’s course grade in the same manner as in spring 2011.
- 3 Achievement Level Section:** This section of the report indicates the student’s **Achievement Level**. The score range for each Achievement Level is provided in the header.
- 4 Points Earned/Points Possible by Content Area:** The **content areas** are listed in the header of this section. The “**Points Earned**” out of the “**Points Possible**” for each content area, or **reporting category**, is provided on each student’s row. The *School Report of Students* does not contain summary information.



## Biology 1 and Geometry EOC Assessments School Report of Students

Readers should have their *Biology 1 EOC Assessment School Report of Students* or *Geometry EOC Assessment School Report of Students* when reviewing and interpreting information provided in this section. Only authorized district and school personnel may access this report, since it contains confidential student information.

- 1 Top of Report:** The title of the report is printed here. It identifies the subject area and test administration for the data included in the report. The name and number of the district and school are also printed in this area.
- 2 Left Side of Report:** The name and student ID for all students whose tests were submitted for scoring appear in the first two columns. Students are grouped by grade level, which is indicated in the first column. The test form is provided in the third column, and the **scale score**, which is also referred to as a **T Score**, is provided in the fourth column. For students receiving “NR” in the fourth column, the footnote at the bottom of the report details reasons why the score is not reported (see page 13 for NR codes).
- 3 Statewide Comparisons by Thirds Section:** This section of the report indicates which third the student’s score is in when compared to the state: 1 indicates the lowest third, 2 indicates the middle third, and 3 indicates the highest third.
- 4 Points Earned/Points Possible by Content Area:** The **content areas** are listed in the header of this section. The “**Points Earned**” out of the “**Points Possible**” for each content area, or **reporting category**, is provided on each student’s row. The *School Report of Students* does not contain summary information.

## Algebra 1 EOC Assessment State and District Reports of Results

Readers should have one of the following Algebra 1 EOC Assessment reports when reviewing and interpreting information provided in this section: *District Report of Schools*, *District Summary*, *State Report of Districts*, and *State Summary*. These reports are formatted similarly.

- ❶ **Top of Reports:** The title of the report is printed here. It identifies the subject area and test administration for the data included in the report. The name and number of the district are also printed in this area on district-level reports.
- ❷ **Left Side of Reports:** Identifying information for the district or school tested is provided in the first column. The first column indicates whether the data are for first-time testers (separated by grade level) or retakers (all grades combined) and provides the total number of students reported for the school, district, or state. The number of students tested appears in the second column of all reports. The **mean scale score** is provided in the third column. The “Percentage Passing” column indicates the percentage of students who earned a passing score (Level 3 or above). All students entering grade 9 or below in the 2011-12 school year and moving forward must achieve a passing score of 399 or higher to earn Algebra 1 course credit. For students who entered grade 9 in the 2010-11 school year, each student’s Algebra 1 EOC Assessment score must be used to calculate 30 percent of his/her final grade in the course.
- ❸ **Percentage in Each Achievement Level:** This section of the report indicates the percentage of students who scored within each **Achievement Level**. The **scale score** range for each Achievement Level is provided in the header.

## Biology 1 and Geometry EOC Assessments State and District Reports of Results

Readers should have one of the following Biology 1 or Geometry EOC Assessment reports when reviewing and interpreting information provided in this section: *District Report of Schools, District Summary, State Report of Districts, and State Summary*. These reports are formatted similarly.

- 1 Top of Reports:** The title of the report is printed here. It identifies the subject area and test administration for the data included in the report. The name and number of the district are also printed in this area on district-level reports.
- 2 Left Side of Reports:** As appropriate, identifying information for the district or school tested and grade levels is provided in the first column. The number of students reported for the school, district, or state appears in the second column of all reports. The **mean scale score**, which is also referred to as a **T Score**, is provided in the third column.
- 3 Percentage in Each Third:** This section of the report indicates the percentage of students who scored within each third, with 1 indicating the lowest third, 2 indicating the middle third, and 3 indicating the highest third.

## Content Assessed

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The content of the **Florida EOC Assessments** is organized by **reporting categories** that are used for test design, scoring, and reporting purposes. Reporting categories group the assessed student knowledge and skills, or **benchmarks**, into broad **content areas**. Definitions and sample test questions for each reporting category are provided below for each of the 2012 EOC assessments.

### Algebra 1 EOC Assessment Reporting Categories

The Algebra 1 EOC Assessment measures student achievement of the **Next Generation Sunshine State Standards (NGSSS)** in algebra, as outlined in the Algebra 1 **course description**. Forty NGSSS **benchmarks** comprise the Algebra 1 course description, which may be accessed at <http://www.floridastandards.org/Courses/PublicPreviewCourse1.aspx>. The test consists of **multiple-choice** and **fill-in response** questions that measure what students know and are able to do in the broad **reporting categories** listed below.

- **Functions, Linear Equations, and Inequalities**  
Students solve real-world problems involving relations and functions; interpret graphs, including the domain and range; use function notation and link equations to functions; and solve, graph, and interpret linear equations and inequalities.
- **Polynomials**  
Students perform operations on polynomials; and simplify monomial expressions and factor polynomial expressions.
- **Rationals, Radicals, Quadratics, and Discrete Mathematics**  
Students simplify rational and radical expressions; solve algebraic proportions; perform operations on radical expressions; interpret graphs of and solve quadratic equations; perform set operations; and use and interpret Venn diagrams.

### Sample Algebra 1 EOC Assessment Test Questions

The *Algebra 1 End-of-Course Assessment Test Item Specifications*, which may be accessed at <http://fcats.fldoe.org/eoc/itemspecs.asp>, define the content and format of the assessment and the assessment's questions for **item** writers and reviewers, and indicate the alignment of questions with the **NGSSS**. A sample question for each Algebra 1 EOC Assessment **reporting category** and question format is provided below. These questions are located in the *Algebra 1 EOC Test Item Specifications* on pages 77, 81, and 94, respectively. For the multiple-choice questions, the correct answer is indicated with a star (★) beside the correct answer choice.

#### 1. Sample Multiple-Choice Question

Russ bought 3 medium and 2 large submarine sandwiches for a total of \$29.95. Stacy bought 4 medium and 1 large submarine sandwiches for a total of \$28.45.

Which statement shows the cost of each medium and each large submarine sandwich?

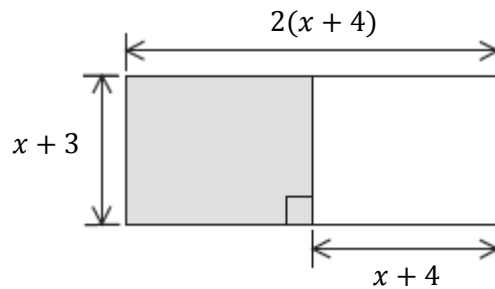
- A. Each medium sandwich costs \$5.69 and each large sandwich costs \$6.89.
- B. Each medium sandwich costs \$5.69 and each large sandwich costs \$6.39.
- ★ C. Each medium sandwich costs \$5.39 and each large sandwich costs \$6.89.
- D. Each medium sandwich costs \$5.39 and each large sandwich costs \$6.39.

**Reporting Category:** Functions, Linear Equations, and Inequalities

**Benchmark MA.912.A.3.14:** Solve systems of linear equations and inequalities in two and three variables using graphical, substitution, and elimination methods.

## 2. Sample Multiple-Choice Question

Which expression is equivalent to the perimeter of the shaded portion of the rectangle?



- A.  $2x + 10$
- B.  $2x + 12$
- ★ C.  $4x + 14$
- D.  $8x + 28$

**Reporting Category:** Polynomials

**Benchmark MA.912.A.4.2:** Add, subtract, and multiply polynomials.

## 3. Sample Fill-In Response Question

Set  $D$  lists the ages of Dianna's grandchildren.

$$D = \{2, 5, 6, 8, 10, 11\}$$

Set  $K$  lists the ages of Karen's grandchildren.

$$K = \{2, 10, 18\}$$

Set  $P$  lists the ages of Patrick's grandchildren.

$$P = \{10, 11, 14\}$$

What is the greatest age in the set  $(K \cup P) \cap D$ ?

1	1					
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**Sample Response:** 11

**Reporting Category:** Rationals, Radicals, Quadratics, and Discrete Mathematics

**Benchmark MA.912.D.7.1:** Perform set operations such as union and intersection, complement, and cross product.

## Biology 1 EOC Assessment Reporting Categories

The Biology 1 EOC Assessment measures student achievement of the **NGSSS** in biology, as outlined in the Biology 1 **course description**. Sixty-one NGSSS **benchmarks** comprise the Biology 1 course description, which may be accessed at <http://www.floridastandards.org/Courses/PublicPreviewCourse69.aspx>. The test consists of **multiple-choice** questions that measure what students know and are able to do in the broad **reporting categories** listed below.

- **Molecular and Cellular Biology**

Students compare prokaryotic and eukaryotic cells; differentiate between mitosis and meiosis; relate the structure and function of the four major categories of biological macromolecules; and differentiate the processes of photosynthesis and cellular respiration.

- **Classification, Heredity, and Evolution**

Students identify evidence that supports the scientific theory of evolution; classify organisms into domains or kingdoms; identify scientific explanations of the origin of life; determine conditions required for natural selection; and analyze patterns of inheritance.

- **Organisms, Populations, and Ecosystems**

Students relate structure and function of organs and tissues in plants and animals; evaluate factors contributing to changes in population size; determine consequences of the loss of biodiversity; and evaluate the impact of biotechnology.

## Sample Biology 1 EOC Assessment Test Questions

The *Biology 1 End-of-Course Assessment Test Item Specifications*, which may be accessed at <http://fcit.fldoe.org/eoc/itemspecs.asp>, define the content and format of the assessment and the assessment's questions for **item** writers and reviewers, and indicate the alignment of questions with the **NGSSS**. A sample question for each Biology 1 EOC Assessment **reporting category** and question format is provided below. These questions are located in the *Biology 1 EOC Test Item Specifications* on pages 59, 79, and 73, respectively. The correct answer is indicated with a star (★) beside the correct answer choice.

### 1. Sample Multiple-Choice Question

One of the accepted scientific theories describing the origin of life on Earth is known as chemical evolution. According to this theory, which of the following events would need to occur **first** for life to evolve?

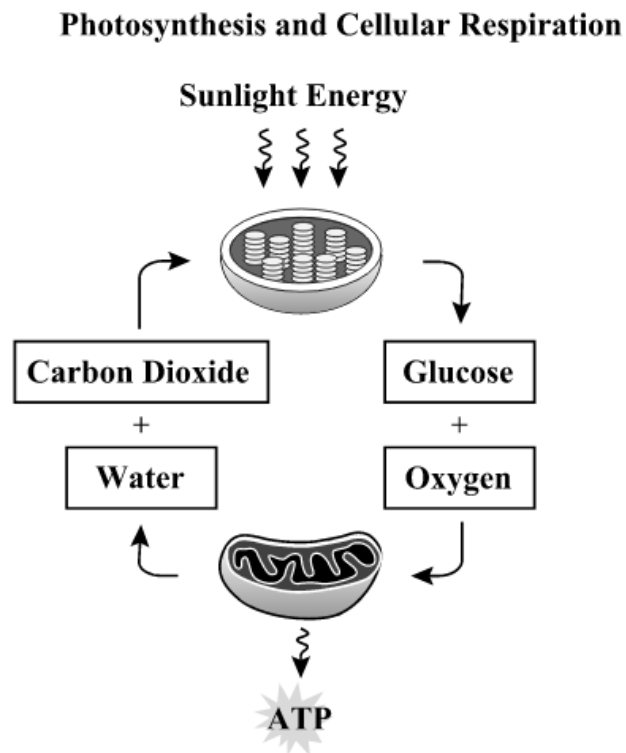
- A. onset of photosynthesis
- B. origin of genetic material
- ★ C. synthesis of organic molecules
- D. formation of the plasma membrane

**Reporting Category:** Classification, Heredity, and Evolution

**Benchmark SC.912.L.15.8:** Describe the scientific explanations of the origin of life on Earth.

## 2. Sample Multiple-Choice Question

The diagram below shows the relationship between photosynthesis and cellular respiration and the organelles in which they occur.



Which statement describes how photosynthesis and cellular respiration are interrelated?

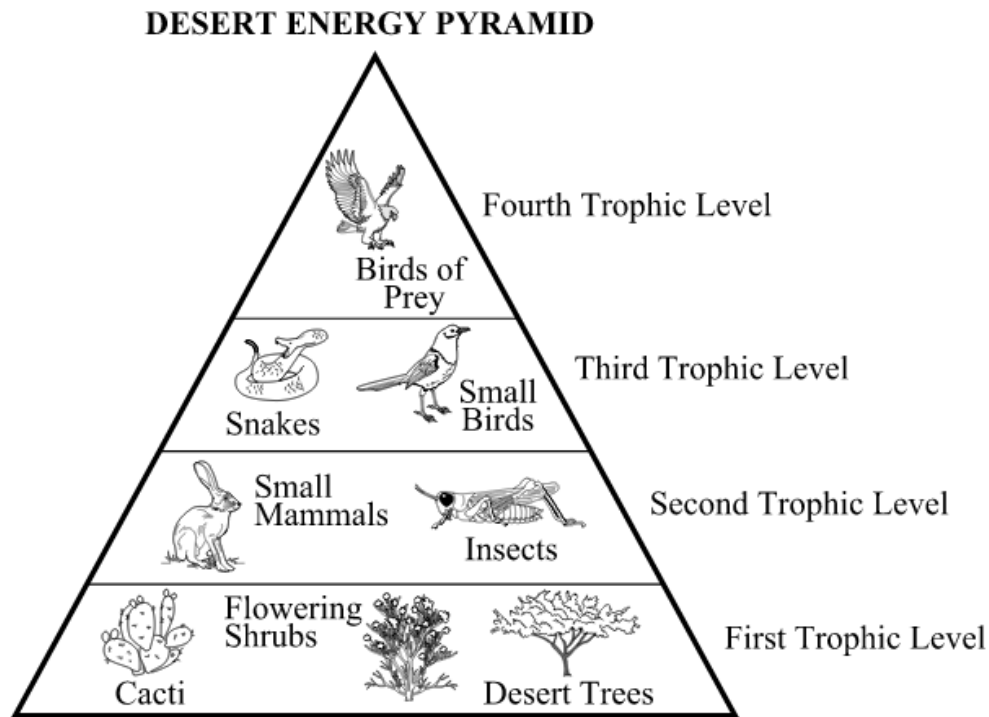
- A. Oxygen is produced during cellular respiration and stored during photosynthesis.
- ★ B. Carbon dioxide and water released by cellular respiration are used in photosynthesis.
- C. Photosynthesis releases the energy that is stored during the process of cellular respiration.
- D. Glucose is used during cellular respiration to produce food that is broken down during photosynthesis.

**Reporting Category:** Molecular and Cellular Biology

**Benchmark SC.912.L.18.9:** Explain the interrelated nature of photosynthesis and cellular respiration.

### 3. Sample Multiple-Choice Question

A team of ecologists observed feeding patterns of several populations in the desert. The energy pyramid shown below depicts the feeding patterns the ecologists observed.



Which of the following **best** explains the difference in the amount of available energy in the trophic levels of the desert ecosystem?

- A. There is less energy available in the producers because their tissues are less dense than those at higher trophic levels.
- B. There is more energy available in the second trophic level because less energy is needed for hunting compared to the higher trophic levels.
- C. There is more available energy in the birds of prey because they have greater muscle mass for storing energy than organisms in lower trophic levels have.
- ★ D. There is less available energy in the fourth trophic level because of the loss of energy through metabolism in each of the lower trophic levels.

**Reporting Category:** Organisms, Populations, and Ecosystems

**Benchmark SC.912.L.17.9:** Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.



## Geometry EOC Assessment Reporting Categories

The Geometry EOC Assessment measures student achievement of the **NGSSS** in geometry, as outlined in the Geometry course description. Fifty-one NGSSS **benchmarks** comprise the Geometry course description, which may be accessed at <http://www.floridastandards.org/Courses/PublicPreviewCourse36.aspx>. The test consists of **multiple-choice** and **fill-in response** questions that measure what students know and are able to do in the broad **reporting categories** listed below.

- **Two-Dimensional Geometry**

Students analyze and solve real-world problems involving angles, polygons, and circles and determine the effect of changes in dimensions; apply transformations to polygons; and determine and prove properties of regularity, congruency, similarity, and symmetry.

- **Three-Dimensional Geometry**

Students analyze and describe relationships of polyhedra; solve real-world problems for lateral area, surface area, and volume of solids and determine the effect of changes in dimensions; and use properties of congruent and similar solids.

- **Trigonometry and Discrete Mathematics**

Students use trigonometry to solve real-world problems involving right triangles; and identify a conditional statement and identify the converse, inverse, and contrapositive.

## Sample Geometry EOC Assessment Test Questions

The *Geometry End-of-Course Assessment Test Item Specifications*, which may be accessed at <http://fcad.fldoe.org/eoc/itemspecs.asp>, define the content and format of the assessment and the assessment's questions for **item** writers and reviewers, and indicate the alignment of questions with the **NGSSS**. A sample question for each Geometry EOC Assessment **reporting category** and question format is provided below. These questions are located in the *Geometry EOC Test Item Specifications* on pages 87, 94, and 53, respectively. For the multiple-choice questions, the correct answer is indicated with a star (★) beside the correct answer choice.

### 1. Sample Multiple-Choice Question

Circle  $Q$  has a radius of 5 units with center  $Q(3.7, -2)$ . Which of the following equations defines circle  $Q$ ?

- A.  $(x + 3.7)^2 + (y - 2)^2 = 5$
- B.  $(x + 3.7)^2 + (y - 2)^2 = 25$
- C.  $(x - 3.7)^2 + (y + 2)^2 = 5$
- ★ D.  $(x - 3.7)^2 + (y + 2)^2 = 25$

**Reporting Category:** Two-Dimensional Geometry

**Benchmark MA.912.G.6.6:** Given the center and the radius, find the equation of a circle in the coordinate plane or given the equation of a circle in center-radius form, state the center and the radius of the circle.

## 2. Sample Fill-In Response Question

A city is planning to replace one of its water storage tanks with a larger one. The city's old tank is a right circular cylinder with a radius of 12 feet and a volume of 10,000 cubic feet. The new tank is a right circular cylinder with a radius of 15 feet and the same height as the old tank. What is the maximum number of cubic feet of water the new storage tank will hold?

1	5	6	2	5		
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**Sample Response:** 15,625

**Reporting Category:** Three-Dimensional Geometry

**Benchmark MA.912.G.7.7:** Determine how changes in dimensions affect the surface area and volume of common geometric solids.

## 3. Sample Multiple-Choice Question

Which of the following is the **converse** of the following statement?

“If today is Sunday, then tomorrow is Monday.”

- ★ A. If tomorrow is Monday, then today is Sunday.
- B. If tomorrow is not Monday, then today is Sunday.
- C. If today is not Sunday, then tomorrow is not Monday.
- D. If tomorrow is not Monday, then today is not Sunday.

**Reporting Category:** Trigonometry and Discrete Mathematics

**Benchmark MA.912.D.6.2:** Find the converse, inverse, and contrapositive of a statement.

## ***Computer-Based Testing***

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The **Florida EOC Assessments** are administered on the computer as part of Florida’s transition to **computer-based testing** for statewide assessments. Ultimately, computer-based testing is a more cost-efficient and environmentally friendly method for test delivery. In addition, computer-based testing provides the ability to test students later in the school year because less time is required for the scoring and reporting processes.

### **Practice Tests**

Prior to taking the **Florida EOC Assessments**, students are required to participate in a practice test session at their school in order to become familiar with the testing tools and platform. **Computer-based practice tests**, called **Electronic Practice Assessment Tools (ePATs)**, are also provided online at [www.FLAssessments.com/ePAT](http://www.FLAssessments.com/ePAT). Currently, ePATs are available for all current **EOC assessments** subjects (Algebra 1, Biology 1, Geometry, and U.S. History).

### **E-Tools**

The tools and resources available to students vary depending on the subject area assessed. Students taking a computer-based assessment have access to the following **e-tools**, which are also called **online tools**, in the computer-based platform.

#### ***All Florida EOC Assessments***

- **Review:** Students use this e-tool to mark questions to be reviewed at a later time. Before exiting the assessment and submitting their responses, students are taken to a screen that identifies questions that are answered, unanswered, and marked for review.
- **Eliminate Choice:** Students use this tool to mark through answer choices that they wish to eliminate.
- **Highlighter:** Students use this tool to highlight sections of the question or passage.
- **Eraser:** Students use the eraser to remove marks made by the highlighter or the eliminate-choice tool.
- **Help:** Students may click the Help icon to learn more about the **e-tools**. The Help text appears in a separate window.

#### ***Algebra 1, Biology 1, and Geometry***

- **Calculator:** Students are provided access to a calculator, which appears in a pop-up window. For Algebra 1 and Biology 1, students use a four-function calculator. For Geometry, students use a scientific calculator.
- **Straightedge:** Students are provided a straightedge e-tool, which looks like a ruler without measuring units. Students use the straightedge as they would use the edge of a piece of paper to help work a problem.
- **Exhibit:** For Algebra 1 and Geometry, students are provided a reference sheet of commonly used formulas and conversions to work the test questions. For Biology 1, students are provided the Periodic Table of the Elements. The reference sheet and the periodic table appear in a pop-up window under the exhibit icon. Students are also provided directions for completing **fill-in response** questions (Algebra 1 and Geometry) and a diagram and helpful hints for the appropriate calculator under the exhibit icon.

In addition to these tools, students taking the Algebra 1, Biology 1, and Geometry EOC Assessments are also provided work folders to use as scratch paper to work the problems. Schools may permit students to use approved hand-held calculators, and schools can also provide paper versions of the reference sheet and periodic table.

#### ***U.S. History***

- **Notepad:** Students may use the notepad to make notes on a particular question for later reference. Each question has its own notepad, so any notes a student makes remain with that question.

## Glossary

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Note: Terms defined in this glossary that have been cross-referenced appear in **bold text** the first time they are referenced in a definition other than their own.

**Achievement Levels**—Once standards are set for an **EOC assessment**, scores will be defined by five categories of achievement that represent the success students demonstrate with the content assessed. Achievement Levels are helpful in interpreting what a student’s score represents. Achievement Levels range from 1 to 5, with Level 1 being the lowest and Level 5 being the highest. In order to earn course credit for select assessments, students must achieve Level 3 or higher. Level 4 indicates the student is high achieving and has the potential to meet college-readiness standards by the time the student graduates from high school. Achievement Levels have been established for the Algebra 1 EOC Assessment. Achievement Levels for the Biology 1 and Geometry EOC Assessments will be available beginning in 2013 and will be established using the input of classroom teachers, curriculum specialists, education administrators, and other stakeholders.

**Achievement Level Policy Definitions**—Definitions that summarize the level of success a student has with the **Next Generation Sunshine State Standards (NGSSS)**. Each **Achievement Level**, with Level 5 being the highest and Level 1 being the lowest, has a policy definition.

**Benchmark**—A specific statement that describes what students should know and be able to do. The benchmarks are part of the **NGSSS**.

**Computer-Based Practice Test**—Students participate in a practice test at school that demonstrates the tools and item types they will see on the actual assessment. The practice test is delivered through an **Electronic Practice Assessment Tool (ePAT)**, which mimics the software the students will use on the day of testing. This practice test is not intended to be a predictor of performance on the assessment. Students may also practice on their own by accessing the appropriate ePAT at [www.FLAssessments.com/ePAT](http://www.FLAssessments.com/ePAT).

**Computer-Based Testing**—Several Florida statewide assessments are now being administered using a computer-based format. The **Florida EOC Assessments** are all given in a computer-based format, with paper-based accommodations offered for eligible students. When taking the test on the computer, students make their answer choices using the mouse or keyboard, and they may use various **e-tools**, such as the eliminate-choice tool or the highlighter tool, as they work. Once they have completed the test, they submit their answers electronically. Before exiting the assessment and submitting their responses, students are taken to a screen that identifies questions that are answered, unanswered, and marked for review.

**Content Area**—See **Reporting Category**.

**Content Area Scores**—The actual number of questions answered correctly within each **reporting category** of an assessment. For example, content area scores are reported for the following reporting categories for the Algebra 1 EOC Assessment: *Functions, Linear Equations, and Inequalities; Polynomials; and Rationals, Radicals, Quadratics, and Discrete Mathematics*. Content area scores are also referred to as raw scores.

**Course Description**—The content knowledge and skills taught in a course. **EOC assessments** measure achievement of students enrolled in a course by assessing the **NGSSS benchmarks** assigned to the course description for the subject area. Course descriptions may be accessed at <http://www.floridastandards.org/Courses/CourseDescriptionSearch.aspx>.

**Electronic Practice Assessment Tool (ePAT)**—See **Computer-Based Practice Test**.

**EOC Assessment**—See **Florida End-of-Course (EOC) Assessments**.

**Equating**—A process that occurs during scoring in which results from different test forms are reviewed, compared, and adjusted so that the same scores for each test form indicate the same level of achievement. This process ensures that the difficulty level of each test form is adjusted so that scores across test forms are comparable. This process also ensures that **scale scores** indicate the same level of difficulty each year.

**E-Tools**—Tools available to students in the **computer-based testing** platform. These tools include a highlighter, eraser, eliminate-choice tool, straightedge, calculator, review tool, exhibit tool, help tool, and notepad. Tools vary by assessment, and students may use these tools at any time during the assessment.

**Field Test**—Before a statewide assessment can occur, a field test must be conducted in order to try out questions before they are used to determine a student’s score. Field tests are administered to a representative sample of students throughout the state.

**Field-test Questions**—Newly developed questions that are administered to a sample of students before they can be used on a future test. Field-test questions must be sampled at least one year before they are actually used to determine a student’s score. If the data on the field-test questions are acceptable, then the questions may be used on an actual test and count toward a student’s score.

**Fill-In Response**—Test questions that require students to solve a problem for which the answer is numerical. Students will use the keyboard or number pad to type the digits 0-9 or the symbols for a decimal point, fraction bar, or negative sign in the answer boxes. The fill-in response format is used in the Algebra 1 and Geometry End-of-Course Assessments.

**Florida End-of-Course (EOC) Assessments**—Tests designed to measure student achievement of the **NGSSS** for specific courses, as outlined in their **course descriptions**. These assessments are part of Florida's Next Generation Strategic Plan for increasing student achievement and improving college and career readiness. The first assessment to begin the transition to EOC testing in Florida was the 2011 Algebra 1 EOC Assessment. The Biology 1 and Geometry EOC Assessments were first administered in spring 2012. U.S. History was field-tested in spring 2012 and will be implemented for the first time in spring 2013. The next subject to be field-tested is Civics (spring 2013)

**Items**—Test questions that students are required to solve.

**Mean**—An average of the individual scores that describes the performance of a group of students. The mean is computed by finding the sum of all scores and dividing by the number of students.

**Median**—A score that identifies the middle value of a group of data. The median is the point at which a group of numbers (scores) is divided in half (50 percent above and below).

**Mode**—The most frequently occurring score in a set of scores. If a distribution of scores is statistically normal, the **mean**, **median**, and **mode** are the same score.

**Multiple-Choice**—Test questions that present students with several options from which to choose the correct answer. **Florida EOC Assessments** use questions in which four choices are given, only one of which is correct.

**Next Generation Sunshine State Standards (NGSSS)**—The core content of the curricula taught in Florida. The NGSSS specify the core content knowledge and skills that K-12 public school students are expected to acquire in the subject areas of language arts, mathematics, science, social studies, visual and performing arts, physical education, health, and foreign languages. The NGSSS **benchmarks** identify what a student should know and be able to do at each grade level for each subject area.

**Normative Data**—Data representing prescribed norms or averages. For example, types of normative data available for the first test administration year for **EOC assessments** are the **mean** and the percentage of students scoring in each third.

**Online Tools**—See **E-Tools**.

**Points Earned**—See **Content Area Scores**.

**Points Possible**—The number of “Points Possible” is the total number of test questions for a **content area**, or **reporting category**, on a test. Each question counts as one point. The number of points possible in a content area may change slightly each year.

**Reporting Category**—Broad **content areas** into which the assessed student knowledge and skills, or **benchmarks**, are grouped.

**Scale Score**—The type of score students receive on an EOC assessment. When a student takes an EOC assessment, the student’s **content area scores**, which are also called raw scores, are converted to a scale score through an **equating** process. The equating process ensures that the scale scores represent the same level of difficulty each year.

**Standard Deviation**—The amount of average variation, or dispersion, from the **mean**.

**State Mean**—The average score for each grade used for comparison purposes. Individual student scores, school **mean** scores, or district mean scores can be compared to the state mean.

**T Score**—The score that students receive the first year that an **EOC assessment** is administered. T scores are reported using a norm-referenced score scale known as a **T-score scale**. On student, school, district, and state reports, the T score is referred to as a **scale score**.

**T-Score Scale**—A scale of 20-80 in which the **mean** is a score of 50 and the **standard deviation** is 10.