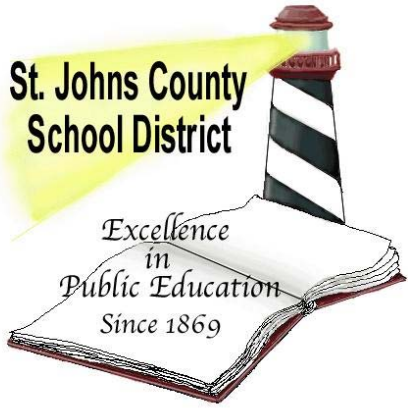
Guide to Preparing for the Florida Biology 1 End–of–Course Assessment



Biology 1 End of Course Assessment Overview

The Florida Department of Education has transitioned to End of Course (EOC) assessments for certain high school courses. The first Biology 1 EOC Assessment test administration occurred in spring 2012. The Florida Biology End of Course Assessment (Biology EOC) will be administered in early May of 2015.

The Biology 1 EOC Assessment measures student achievement of the *Next Generation Sunshine State Standards* (NGSSS), as outlined in the Biology 1 course description. Students throughout the state will participate in the assessment which will measure student achievement of the NGSSS, as outlined in the Biology 1 course description. To see the specific benchmarks in the Biology course, go to
http://www.cpalms.org/Courses/PublicPreviewCourse69.aspx

Who will take the test?

The following students are eligible to participate in a Biology 1 EOC Assessment administration:

- Students who need to earn a passing score for a standard diploma with a scholar designation
- Students who have not yet taken the assessment to be averaged as 30% of their course grade
- Students who are in grade forgiveness programs and wish to retake the assessment to improve their course grade
- Students in a credit acceleration program (CAP) who wish to take the assessment to earn course credit

Test Administration Information
The test is delivered via a computer-based test platform. The test has 60-66 multiple choice questions. Paper based versions (regular print and Braille) will be provided for students with disabilities who require allowable accommodations, as specified in their IEPs or Section 504 plans.

The assessment is given in a 160-minute session with a 10-minute break after the first 80 minutes. Students may not be dismissed during the first 80 minutes; however, after the 10-minute break, they may be dismissed as they complete the test. Although the assessment is scheduled for a 160-minute session, any student not finished by the end of the 160 minutes may continue working. Testing must be completed within the same school day.

There will be multiple forms of the assessment with a maximum of 66 items on each test form. Approximately six to ten of these items are experimental (field test) items, and are *not* included in student scores. For more information, see the test design summary on the Florida State Department of Education website.

A four function calculator is provided in the test platform. Students may request the use of an approved, hand-held four-function calculator after they participate in a practice test if they determine that they are not comfortable using the online calculator for testing.

A Periodic Table of the Elements is provided in the test platform. Students will be provided hard-copy work folders to use as scratch paper. These are secure materials that must be collected after testing and stored or securely destroyed according to the district assessment coordinators' instruction.

What is tested on the Biology EOC*?*
By category, the percentages of each of the three categories tested are:

Biology 1	Molecular and Cellular Biology	35
	Classification, Heredity, and Evolution	25
	Organisms, Populations, and Ecosystems	40

The Biology benchmarks mandated by the state are located at:
http://www.cpalms.org/Courses/PublicPreviewCourse69.aspx

Not all standards listed are tested. The tested standards are listed in the Content Focus report. (link below)

The "Content Focus" report for Biology tells you the benchmarks that are tested within the categories (above) and the possible number of questions for that benchmark.
The Department of Education's "Content Focus" can be found at:
http://fcat.fldoe.org/eoc/pdf/Biology1ContentFocus2014.pdf

For additional information, the Biology End Of Course Test Item Specifications are located at:
http://fcat.fldoe.org/eoc/pdf/BiologyFL11Sp.pdf

Scoring
There are five achievement levels for the End-Of-Course Assessments. Students must attain a level 3 or higher in order pass the exam and receive course credit.

FCAT 2.0 and Florida End-of-Course Assessments Achievement Level Policy Definitions	
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*.

Achievement Levels for the
Biology 1 EOC Assessment Scale Scores (325 to 475)

Level 1	Level 2	Level 3 (Passing*)	Level 4	Level 5
325-368	369-394	395-420	421-430	431-475

*Passing score required for a standard diploma with a scholar designation

Course grade: The Biology EOC will count as 30% of any student's final grade for the year. Additionally, any student who wishes to obtain a "Scholar Diploma" must obtain a passing grade on the EOC, set by the state scale.

Estimated reporting date: Biology EOC test scores will be released approximately four weeks after the end of the test administration window.

Sample Benchmark questions, taken from the "End of Course Item Specifications" from the state*:*

Sample Item SC.912.N.1.1

An osmosis investigation was conducted using chicken eggs to represent cells with semipermeable membranes. The mass of each egg was measured to determine how much water diffused into or out of the eggs. The eggs were first soaked in vinegar to dissolve the shell. Each egg was then placed in one of three different solutions for 24 hours. The table below shows the results of the investigation.

OSMOSIS IN CELLS

Solution	Average Mass of Eggs Before Soaking (grams)	Average Mass of Eggs After Soaking (grams)	Difference in Average Mass (grams)	Percent Change in Average Mass
Vinegar (95% water)	71.2	98.6	27.4	+38.5
Corn syrup (5% water)	98.6	64.5	34.1	-34.6
Distilled water (100% water)	64.5	105.3	40.8	+63.3

Based on this experiment, which of the following should be inferred about cells with semi-permeable membranes?

A. Substances other than water may also cross the cell membrane.
B. Substances other than water may block pores in the cell membrane.
C. Water enters the cell when placed in environments of high water concentration.
D. Water leaves the cell when placed in environments with low concentration of solutes.

Sample Item SC.912.L.14.7

Terrestrial plants have stomata on the surface of their leaves. A single stoma is surrounded by two guard cells that change shape in response to environmental factors and open or close the stoma. Which of the following best explains how the structure of the leaf is used in processes that occur in the plant?

A. Water enters the plant through the surface of the leaf for transpiration.
B. Gases for photosynthesis are exchanged through the surface of the leaf.
C. Energy for cellular reproduction is absorbed through the surface of the leaf.
D. Carbon dioxide enters the plant through the surface of the leaf for cellular respiration.

Sample Item SC.912.L.14.36

The rate at which blood flows through the human body changes in response to many factors. Which statement describes one of these factors and its effect on blood flow?

A. A high viscosity of blood causes an increased resistance in the blood vessels and leads to slow blood flow.
B. A low blood pH decreases the rate of diffusion through the blood vessels and leads to slow blood flow.
C. The changing of the shape of red blood cells to a crescent shape decreases resistance and leads to a faster blood flow.
D. The narrowing of blood vessels increases pressure and leads to a faster blood flow.

Practice Tests:

Teachers, parents, and students can review the Biology 1 EOC Assessment computer-based practice test, called an ePAT. This tool is available online at **www.FLAssessments.com/ePAT**. Instructions for downloading the installer software and ePAT are also located on this site. Students are required to participate in a practice test at their school prior to testing.

State Resource Sites
http://focus.florida-achieves.com/(S(t5pzjvb5yee03sjn4ilwvmyv))/login.aspx and FCAT Explorer: **www.fcatexplorer.com** are state sites that offer practice for the assessment. Students will require a sign-in and password to enter the sites. Your child's school can assist with that information.

Florida Virtual School offers a practice Biology EOC exam, with answers. Click on the "practice test" link to access this at**: http://www.flvs.net/myFLVS/study-tools/EOC/Pages/biology.aspx**

Resources:
These sites offer some excellent video tutorials: The Khan Academy **http://www.khanacademy.org/science/biology** and Bozeman science **http://www.bozemanscience.com/biology-main-page.**

Questions? Please contact your student's guidance department with any additional concerns or questions.

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