



Spring 2014 Biology 1 End-of-Course (EOC) Assessment				
Next Generation Sunshine State Standards (NGSSS)				
Form 1				
NGSSS Benchmark	Content Focus	Number of Points Possible		
Reporting Category 1. Molecular and Cellular Biology				
SC.912.L.14.1	Evaluating scientific claims—cell theory	1		
SC.912.L.14.3	Cell membrane; Comparing prokaryotic and eukaryotic cells; General structures—eukaryotic cells; General structures—plant cells	4		
SC.912.L.16.3	DNA replication; Gene mutation	3		
SC.912.L.16.17	Mitosis—anaphase; Role of meiosis—sexual reproduction; Role of meiosis—asexual reproduction; Uncontrolled cell growth	4		
SC.912.L.18.1	Biochemical reactions and enzymes; Lipids—primary function	2		
SC.912.L.18.9	Cellular respiration—anaerobic; Photosynthesis and cellular respiration relationship; Role of ATP	3		
SC.912.L.18.12	Properties of water—cohesive behavior; Properties of water—solvent	2		
SC.912.N.1.1	Designing scientific investigations	1		
	Reporting Category Point Total	20		
	Reporting Category 2. Classification, Heredity, and Evolution			
SC.912.L.15.1	Evidence for evolution—fossil record; Evidence for evolution—molecular biology	3		
SC.912.L.15.6	Changes in organism classification; Distinguishing characteristics—Fungi	2		
SC.912.L.15.8	Scientific explanations for life on Earth	2		
SC.912.L.15.13	Genetic drift; Increasing genetic variation; Inherited variations; Overproduction of offspring	4		
SC.912.L.16.1	Codominance; Sex-linked inheritance	2		
SC.912.N.1.1	Defending conclusions	1		
	Reporting Category Point Total	14		
	Reporting Category 3. Organisms, Populations, and Ecosystems			
SC.912.L.14.7	Cones; Plant leaves	2		
SC.912.L.14.26	Brain stem	1		
SC.912.L.14.36	Blood viscosity	1		
SC.912.L.14.52	Immune system—specific response; Significance of pathogenic agents	2		
SC.912.L.16.10	Impact of biotechnology—environmental; Impact of biotechnology—society	2		
SC.912.L.16.13	Female reproductive organs	1		
SC.912.L.17.5	Changes in ecosystems—climate change; Consequences to biodiversity—climate change; Consequences to biodiversity—nonnative species; Life in aquatic systems—temperature; Limiting factors	6		
SC.912.L.17.9	Energy pathways—food web	1		
SC.912.L.17.20	Human impact on environmental systems; Monitoring environmental parameters	4		
SC.912.N.1.1	Defending conclusions	2		
	Reporting Category Point Total	22		





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Form 2				
NGSSS Benchmark	Content Focus	Number of Points Possible		
Reporting Category 1. Molecular and Cellular Biology				
SC.912.L.14.1	Identifying what is science—cell theory	1		
SC.912.L.14.3	Cell membrane; Comparing plant and animal cells—cell wall; Comparing prokaryotic and eukaryotic cells; General structures—eukaryotic cells	4		
SC.912.L.16.3	DNA replication; Gene mutation	3		
SC.912.L.16.17	Comparing mitosis and meiosis; Mitosis—anaphase; Role of mitosis—asexual reproduction; Uncontrolled cell growth	4		
SC.912.L.18.1	Biochemical reactions and enzymes; Nucleic acids—primary function	2		
SC.912.L.18.9	Cellular respiration—anaerobic; Photosynthesis—reactants; Photosynthesis and cellular respiration relationship	3		
SC.912.L.18.12	Properties of water—cohesive behavior	1		
SC.912.N.1.1	Analyzing data; Evaluating scientific explanations	2		
	Reporting Category Point Total	20		
Reporting Category 2. Classification, Heredity, and Evolution				
SC.912.L.15.1	Evidence for evolution—fossil record; Evidence for evolution—molecular biology	2		
SC.912.L.15.6	Changes in organism classification; Distinguishing characteristics—Plantae; Understanding classification	3		
SC.912.L.15.8	Scientific explanations for life on Earth	2		
SC.912.L.15.13	Gene flow; Increasing genetic variation; Inherited variations	3		
SC.912.L.16.1	Analyzing patterns of inheritance; Sex-linked inheritance	2		
SC.912.N.1.1	Analyzing data; Evaluating scientific investigations	2		
	Reporting Category Point Total	14		
	Reporting Category 3. Organisms, Populations, and Ecosystems			
SC.912.L.14.7	Cones; Dermal tissue; Plant leaves	4		
SC.912.L.14.26	Pons	1		
SC.912.L.14.36	Resistance	1		
SC.912.L.14.52	Immune system—nonspecific response; Significance of pathogenic agents	2		
SC.912.L.16.10	Impact of biotechnology—environmental; Impact of biotechnology—individual; Impact of biotechnology—society	3		
SC.912.L.16.13	Female reproductive organs	1		
SC.912.L.17.5	Changes in ecosystems—seasonal variations; Changes in ecosystems— succession; Consequences to biodiversity—nonnative species; Limiting factors	5		
SC.912.L.17.9	Energy pathways—food web; Water cycle	2		
SC.912.L.17.20	Monitoring environmental parameters	1		
SC.912.N.1.1	Defending conclusions; Evaluating scientific investigations	2		
	Reporting Category Point Total	22		





## Spring 2014 Biology 1 End-of-Course (EOC) Assessment Next Generation Sunshine State Standards (NGSSS)

Form 3				
NGSSS Benchmark	Content Focus	Number of Points Possible		
Reporting Category 1. Molecular and Cellular Biology				
SC.912.L.14.1	Identifying what is science—cell theory	1		
SC.912.L.14.3	Cell membrane; Comparing plant and animal cells—common structures; Comparing prokaryotic and eukaryotic cells; General structures—eukaryotic cells	4		
SC.912.L.16.3	Chromosomal mutation; Gene mutation	2		
SC.912.L.16.17	Meiosis I and II—prophase; Mitosis—anaphase; Mitosis—telophase; Role of mitosis—asexual reproduction; Uncontrolled cell growth	5		
SC.912.L.18.1	Biochemical reactions and enzymes; Nucleic acids—primary function; Proteins—molecular structure	3		
SC.912.L.18.9	Cellular respiration—anaerobic	1		
SC.912.L.18.12	Properties of water—cohesive behavior; Properties of water—solvent	2		
SC.912.N.1.1	Evaluating scientific explanations	2		
	Reporting Category Point Total	20		
	Reporting Category 2. Classification, Heredity, and Evolution			
SC.912.L.15.1	Evaluating scientific claims—evolution; Evidence for evolution—fossil record; Evidence for evolution—molecular biology	3		
SC.912.L.15.6	Changes in organism classification; Distinguishing characteristics—Fungi; Understanding classification	3		
SC.912.L.15.8	Scientific explanations for life on Earth	1		
SC.912.L.15.13	Increasing genetic variation; Inherited variations	3		
SC.912.L.16.1	Codominance; Incomplete dominance; Sex-linked inheritance	3		
SC.912.N.1.1	Defending conclusions	1		
	Reporting Category Point Total	14		
Reporting Category 3. Organisms, Populations, and Ecosystems				
SC.912.L.14.7	Cones; Plant leaves	2		
SC.912.L.14.26	Occipital lobe	1		
SC.912.L.14.36	Blood pressure	1		
SC.912.L.14.52	Immune system—nonspecific response; Significance of pathogenic agents	2		
SC.912.L.16.10	Impact of biotechnology—environmental	1		
SC.912.L.16.13	Female reproductive organs	1		
SC.912.L.17.5	Changes in ecosystems—seasonal variations; Changes in ecosystems— succession; Consequences to biodiversity—nonnative species; Life in aquatic systems—temperature; Limiting factors	6		
SC.912.L.17.9	Energy pathways—energy pyramid; Energy pathways—food web	2		
SC.912.L.17.20	Costs and benefits—renewable resources; Human impact on environmental systems	2		
SC.912.N.1.1	Defending conclusions; Designing scientific investigations; Making inferences	4		
Reporting Category Point Total		22		





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Form 4					
NGSSS Benchmark	Content Focus	Number of Points Possible			
	Reporting Category 1. Molecular and Cellular Biology				
SC.912.L.14.1	Cell theory	1			
SC.912.L.14.3	Cell membrane; Comparing plant and animal cells—chloroplasts; Comparing prokaryotic and eukaryotic cells	3			
SC.912.L.16.3	Gene mutation	2			
SC.912.L.16.17	Mitosis—anaphase; Mitosis—prophase; Role of mitosis—asexual reproduction; Uncontrolled cell growth	5			
SC.912.L.18.1	Biochemical reactions and enzymes; Nucleic acids—primary function	3			
SC.912.L.18.9	Cellular respiration; Cellular respiration—anaerobic	2			
SC.912.L.18.12	Properties of water—cohesive behavior; Properties of water—freezing	2			
SC.912.N.1.1	Analyzing data; Making inferences	2			
	Reporting Category Point Total	20			
	Reporting Category 2. Classification, Heredity, and Evolution				
SC.912.L.15.1	Evidence for evolution—fossil record; Evidence for evolution—molecular biology	2			
SC.912.L.15.6	Distinguishing characteristics—Animalia; Distinguishing characteristics—Plantae; Understanding classification	3			
SC.912.L.15.8	Scientific explanations for life on Earth	2			
SC.912.L.15.13	Genetic drift; Inherited variations; Overproduction of offspring	3			
SC.912.L.16.1	Analyzing patterns of inheritance; Predicting inherited patterns; Sex-linked inheritance	3			
SC.912.N.1.1	Defending conclusions	1			
	Reporting Category Point Total	14			
	Reporting Category 3. Organisms, Populations, and Ecosystems				
SC.912.L.14.7	Cones; Plant leaves; Plant structures—reproduction	3			
SC.912.L.14.26	Parietal lobe	1			
SC.912.L.14.36	Resistance	1			
SC.912.L.14.52	Significance of pathogenic agents	1			
SC.912.L.16.10	Impact of biotechnology—environmental	1			
SC.912.L.16.13	Female reproductive organs	1			
SC.912.L.17.5	Carrying capacity; Changes in ecosystems—succession; Consequences to biodiversity—human activity; Consequences to biodiversity—nonnative species; Limiting factors	7			
SC.912.L.17.9	Carbon cycle; Energy pathways—food web	2			
SC.912.L.17.20	Human impact on environmental systems; Monitoring environmental parameters; Using renewable resources	3			
SC.912.N.1.1	Defending conclusions	2			
Reporting Category Point Total					





## What is content focus?

"Content focus" is a term that defines the specific content measured by each Spring 2014 Biology 1 EOC Assessment test item.

The Next Generation Sunshine State Standards (NGSSS) benchmarks and content foci assessed on the Spring 2014 Biology 1 EOC Assessment are not predictive of future Biology 1 EOC Assessments.

## What cautions should be considered when using Content Focus Reports?

Content Focus Reports should not be used to make decisions about instruction at the individual student level. Some reporting categories have too few test items to report reliable or meaningful scores at the student level. While well-intended, providing remedial instruction in a specific reporting category may not be justified and may be an inefficient use of instructional time. Content focus data should not be used as sole indicators to determine remedial needs of students.

When interpreting content focus data, the following cautions and information should also be considered:

- The number of items in a reporting category may vary from one year to another. Consequently, users should not compare performance data such as mean percent correct.
- Mean content area scores for each test form might be different; therefore, users should not compare content area scores across test forms.
- The difficulty of the items measuring each benchmark will vary from one year to the next. Consequently, users should not compare content area scores across years.
- The analysis is based on state-level data that are not intended to provide specific classroom, school, or district interpretations.
- Scale score values cannot accurately be determined using Content Focus Reports for a number of reasons. For instance, test scores are generated from students' performance on the entirety of the test, which accounts for the difficulty (also called cognitive complexity) of test items.

## How may content area scores be used?

Guidance on how content area scores may be used by schools and districts is provided on pages 11-12 of <u>Understanding Florida End-of-Course Assessment Reports, Spring 2014</u> (PDF).