

Oklahoma School Testing Program

ACE Biology I EOI – Test Blueprint

School Years 2014-2015 and 2015-2016

The blueprint describes the content and structure of an assessment and defines the ideal number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS-2011/OAS).

Process/Inquiry Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items
P1.0 Observe and Measure	6	10%
1.1 Qualitative/Quantitative Observations/Changes	4	
1.2 Appropriate Tools and 1.3 Use Appropriate System International SI (metric) Units	2	
P2.0 Classify	7 - 8	12% - 13%
2.1 Use Observable Properties to Classify	4	
2.2 Identify Properties of a Classroom System	3 - 4	
P3.0 Experimental Design	16 - 19	27% - 32%
3.1 Evaluate the Design of Investigations	4 - 5	
3.2 Identify Controlled Variables and Experimental Controls in an Experiment and 3.4 Identify a Testable Hypothesis in a Biology Investigation	5 - 6	
3.3 Use Mathematics to Show Relationships	4 - 6	
3.5 Identify Potential Hazards and Practice Safety Procedures in all Science Activities	3	
P4.0 Interpret and Communicate	20 - 24	33% - 40%
4.1 Select Predictions Based on Observed Patterns of Evidence	4 - 5	
4.3 Interpret Line, Bar, Trend, and Circle Graphs	4 - 5	
4.4 Accept or Reject a Hypothesis	4 - 5	
4.5 Make Logical Conclusions Based on Experimental Data	4 - 5	
4.8 Identify an Appropriate Graph or Chart	4	
P5.0 Model	8	13%
5.1 Interpret a Model which Explains a Given Set of Observations	4	
5.2 Select Predictions Based on Models, Using Mathematics When Appropriate	4	
Total Test	60	100%

(Please note this blueprint does not include items that may be field-tested.)

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

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Content Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items
C1.0 The Cell	12 - 15	21% - 27%
1.1 Cell Structures and Functions	4 - 6	
1.2 Differentiation of Cells	4 - 6	
1.2 Specialized Cells	4	
C2.0 The Molecular Basis of Heredity	12 - 15	21% - 27%
2.1 DNA Structure and Function in Heredity	6 - 8	
2.2 Sorting and Recombination of Genes	6 - 7	
C3.0 Biological Diversity	12 - 15	21% - 27%
3.1 Variation Among Organisms	4 - 6	
3.2 Natural Selection and Biological Adaptations	4 - 6	
3.3 Behavior Patterns Can Be Used To Ensure Reproductive Success	4	
C4.0 The Interdependence of Organisms	8 - 10	14% - 18%
4.1 Organisms Both Cooperate and Compete	4 - 6	
4.2 Population Dynamics	4 - 6	
C5.0 Matter/Energy/Organization in Living Systems	12	21%
5.1 Complexity and Organization Used For Survival	4	
5.2 Matter and Energy Flow in Living and Nonliving Systems	4	
5.3 Earth Cycles Including Abiotic and Biotic Factors	4	
Total Test	57¹	100%

(Please note this blueprint does not include items that may be field-tested.)

¹ Each test item aligns to both a Process Standard/Objective and a Content Standard/Objective, except for Safety Items which only align to P3.5.

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