

Alternative Science Testing Structure

The testing structure for science reflects both the number of operational assessment items and the number of field test assessment items.

Grade	Administration Window*
6-8	Multiple untimed sessions <ul style="list-style-type: none"> 24 multiple choice items (20 operational items and 4 field test item)

* Teachers may administer the assessment in as many sessions as necessary throughout the entire administration window.

TCAP Grades 6-8 Alternate Science Blueprints 2017-18

The blueprints reflect only operational assessment items

Grade 6		
Content	# of items	% of test
LS: Interdependence	3-4	15-20
0607.2.2	Interpret how materials and energy are transferred through an ecosystem.	
0607.2.4	Identify the environmental conditions and interdependencies among organisms found in the major biomes.	
ES 1: The Universe	4-7	20-35
0607.6.3	Distinguish among a day, lunar cycle, and year based on the movements of the earth, sun, and moon.	
0607.6.6	Use a diagram that shows the positions of the earth and sun to explain the four seasons.	
0607.6.7	Explain the difference between a solar and a lunar eclipse.	
ES 2: The Atmosphere	3-4	15-20
0607.8.2	Recognize the connection between the sun's energy and the wind.	
0607.8.4	Interpret meteorological data to make predictions about the weather.	
PS: Energy, Forces in Nature	4-7	20-35
0607.10.2	Interpret the relationship between potential and kinetic energy.	
0607.10.3	Recognize that energy can be transformed from one type to another.	
0607.10.4	Explain the Law of Conservation of Energy using data from a variety of energy transformations.	

Grade 7		
Content	# of items	% of test
LS 1: Cells, Flow of Matter & Energy	4-6	20-30
0707.1.3	Explain the basic functions of a major organ system.	
0707.1.5	Explain how materials move through simple diffusion.	
0707.3.1	Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.	
LS 2: Heredity	3-4	15-20
0707.4.2	Match flower parts with their reproductive functions.	
0707.4.4	Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.	
ES: The Earth	4-6	20-30
0707.7.5	Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.	
0707.7.6	Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.	
0707.7.7	Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.	
PS: Motion	4-5	20-25
0707.11.3	Apply proper equations to solve basic problems pertaining to distance, time, speed, and velocity.	
0707.11.4	Identify and explain how Newton's laws of motion relate to the movement of objects.	

Grade 8			
Content		# of items	% of test
LS: Biodiversity & Change		3-5	15-25
0807.5.2	Analyze structural, behavioral, and physiological adaptations to predict which populations are likely to survive in a particular environment.		
0807.5.5	Compare fossils found in sedimentary rock to determine their relative age.		
PS 1: Chemical Reaction		4-6	20-30
0807.9.2	Identify the common outcome of all chemical changes.		
0807.9.10	Identify the reactants and products of a chemical reaction.		
0807.9.11	Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).		
PS 2: Properties of Matter		3-5	15-25
0807.9.1	Recognize that all matter consists of atoms.		
0807.9.6	Compare the particle arrangement and type of particle motion associated with different states of matter.		
PS 3: Forces in Nature		4-6	20-30
0807.12.1	Recognize that electricity can be produced using a magnet and wire coil.		
0807.12.2	Describe the basic principles of an electromagnet.		
0807.12.6	Illustrate how gravity controls the motion of objects in the solar system.		