

Item Analysis enables teachers to use each benchmark and assessment as a re-teaching tool. Students are able to analyze all answer choices and review concepts to achieve a greater depth of understanding.

IA 5th Science Benchmark
Form A

TEKS 5.5A Readiness Standard
Classify matter based on physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.

ITEM 27
During an experiment different objects were placed in a graduated cylinder that contained different liquids like the one modeled below.



A solid object is placed in the graduated cylinder containing the different liquids. Which of the following statements best classifies the object if it floats near the 100 mL mark in the graduated cylinder? (5.5A, 5.2C) *RS RCT*

A The object has a greater mass than karo syrup.
B The object has less mass than water and rubbing alcohol.
C The object is less dense than water and rubbing alcohol.
D The object is less dense than karo syrup.

Answer Analysis	
A	
B	
C	
D	

Which is more dense than water, rubbing alcohol or Karo Syrup?

TEKS 5.5A Readiness Standard
Classify matter based on physical properties, including mass and gas), relative density (sinking and floating), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.

ITEM 28
Look at the diagram below. It is a graph of how the temperature and physical state of ice changes as the energy is added to ice.



Which of the following descriptions would best describe at 50°C if 200 calories of heat were added? (5.5A, 5.2D) *RS RCT*

F The ice has a mass of 200 grams.
G The ice is in a gaseous state of matter.
H The ice can conduct electricity at a temperature of 50°C.
J The ice is in a liquid state of matter.

IA 5th Science Benchmark
Form A

TEKS 5.9A Readiness Standard
Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements.

ITEM 29
Which of the following is a non-living element needed for survival by all living organisms? (5.9A) *K RCT*

A Water
B Consumers
C Wood
D Producers

Answer Analysis	
A	
B	
C	
D	

TEKS 5.8A Supporting Standard
Differentiate between weather and climate.

ITEM 30
The precipitation in the rain gauge below was collected over a one-month period near El Paso, Texas.



Which of the following statements best describes the information measured by the rain gauge? (5.8A, 5.2C) *RS RCT*

F The precipitation total for the month was less than 4 inches and this is a measurement of area's weather.
G The precipitation total for the month was less than 4 inches and this is an indication of the area's climate.
H The precipitation total for the month was more than 4 inches and this is a measurement of the area's weather.
J The precipitation total for the month was more than 4 inches and this is an indication of the area's climate.

Category 2
Force, Motion, and Energy
8 Base Test Questions
2 Field Test Questions

TEKS	Item	My Answer	Correct Answer	Notes
5.6A explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy.	8		J	
	18		F	
5.6B demonstrate that the flow of electricity in circuits requires a complete path through which an electric current can pass and can produce light, heat, and sound.	10		J	
	32		H	
5.6C demonstrate that light travels in a straight line until it strikes an object or travels through one medium to another and demonstrate that light can be reflected such as the appearance of an object when observed through water.				
5.6D design an experiment that tests the effect of force on an object.				
3.6B demonstrate and observe how position and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons.				

Shaded - Readiness TEKS, NT - Not Tested, FT-Field Test (do not count toward student score)
Readiness TEKS - 6/8 questions

Category 3
Earth and Space
10 Base Test Questions
1 Field Test Question

TEKS	Item	My Answer	Correct Answer	Notes
5.7A explore the processes that led to the formation of sedimentary rocks and fossil fuels.	15		B	
5.7B recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, and ice.	11		C	
	3		D	
5.7C identify alternative energy resources such as wind, solar, hydroelectric, geothermal, and biofuels.	33		D	
	FT-37		C	
5.7D identify fossils as evidence of past living organisms and the nature of the environments at the time using models.	NT			
5.8A differentiate between weather and climate.	30		F	
5.8B explain how the Sun and the ocean interact in the water cycle.			A	
5.8C demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky.	20		F	
	35		B	
5.8D identify and compare the physical characteristics of the Sun, Earth, and Moon.	NT			
4.7A examine properties of soils including color and texture, capacity to retain water, and ability to support the growth of plants.	21		C	
4.7C identify and classify Earth's renewable resources, including air, plants, water, and animals; and nonrenewable resources, including coal, oil, and natural gas; and the importance of conservation.	23		B	
4.8A measure and record changes in weather and make predictions using weather maps, weather symbols, and a map key.	NT			
4.8B describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process.	NT			
4.8C collect and analyze data to identify sequences and predict patterns of change in shadows, tides, seasons, and the observable appearance of the Moon over time.	NT			
3.7B investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes and landslides.	NT			
3.8D identify the planets in Earth's solar system and their position in relation to the Sun.	NT			

Shaded - Readiness TEKS, NT - Not Tested, FT-Field Test (do not count toward student score)
Readiness TEKS - 6/10 questions

Answer keys are organized by Reporting Category to assist in tracking data for each student. This format allows the teacher and the student to see which concepts need additional review and clarification in classroom instruction.