investigating
the question

RELEASED TEST

Aligned to the Standards

lead4ward

Science - Grade 5 English

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IQ Analysis | Investigating the Question	3.5C	RC:1
3.5C predict, observe, and record changes in the state of matter caused by heating or cooling	**Units:**	

3.5C

Q38

38 Some students put two ice cubes on separate plates. One ice cube had a mass of 80 grams. The other had a mass of 40 grams. Which result would be the same for both ice cubes in this investigation?

F The time it took each ice cube to melt completely

G The temperature at which each ice cube melted

H The amount of liquid produced on each plate

J The total volume of each ice cube

*** Correct answer G**

Analysis

Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐Procedural
B/G*		☐Application
C/H		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

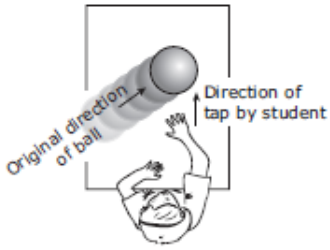
IQ Analysis | Investigating the Question

3.6B	RC: 2
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	**Units:**

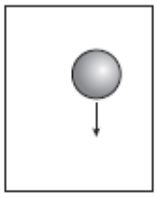
3.6B

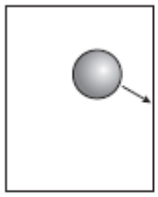
Q1

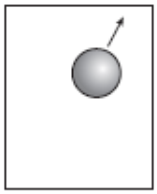
1 The diagram below shows a view of a ball from above a table. The ball is rolling across the table. A student lightly taps the rolling ball in the direction shown below

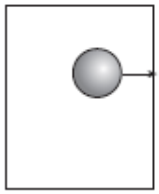


In which direction does the ball most likely move after the student taps the ball?

A 

C 

B 

D 

*** Correct answer B**

Analysis

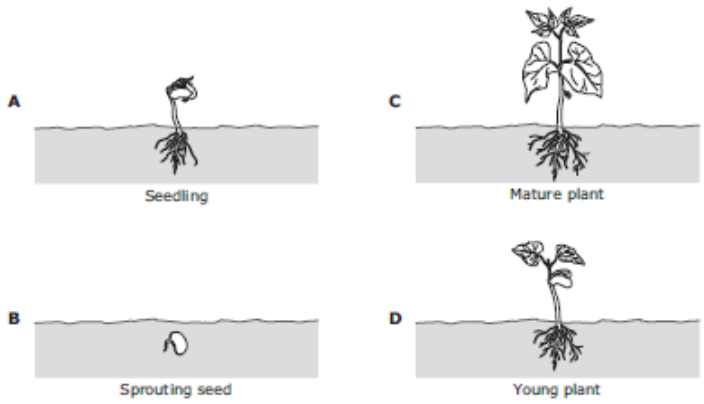
Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐Procedural
***B/G**		☐Application
C/H		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	3.10C	RC: 4
3.10C investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady bugs	**Units:**	

3.10C

Q11

11 At which stage in the life cycle of a plant are seeds produced?



*** Correct answer C**

Analysis

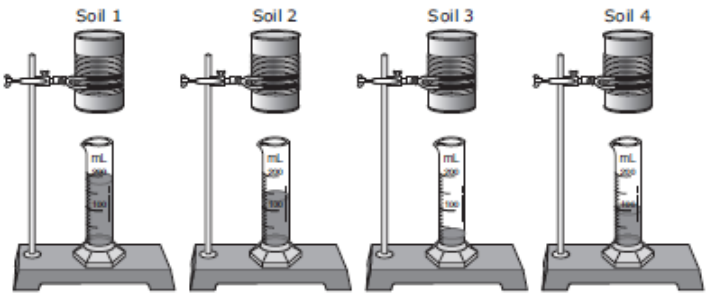
Type	☐ Readiness ☒ Supporting	
Data		
Process Standard		
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
***C/H**		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	4.7A	RC: 3
4.7A examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants	**Units:**	

4.7A

Q12

12 A student conducts an investigation using four identical cans, each with a hole in the bottom. The student fills each can with a different type of soil and then adds 200 milliliters (mL) of water to each can. The graduated cylinders in the diagram below show the amount of water that drains through the soil and out the bottom of each can.



Some plants have roots that reach very deep underground. Which type of soil will most likely stop water from flowing to the deepest roots of these plants?

F Soil 1

G Soil 2

H Soil 3

J Soil 4

*** Correct answer H**

Analysis

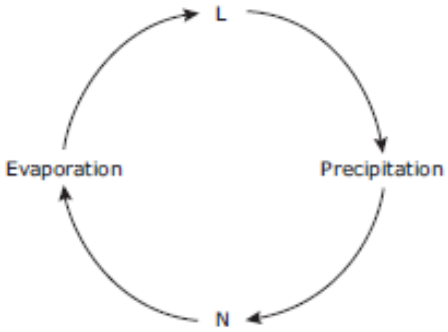
Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐Procedural
B/G		☐Application
C/H*		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	4.8B	RC: 3
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	**Units:**	

4.8B

Q28

28 A diagram of the stages in the water cycle is shown below.



Which of these observations would most likely be seen at Stage N?

F Water flowing downhill

G Fog forming along a highway

H The water level of a lake decreasing

J Dark clouds forming in the sky

*** Correct answer F**

Analysis

Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.3C	
	%	**Error Type**
A/F*		☐Procedural
B/G		☐Application
C/H		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

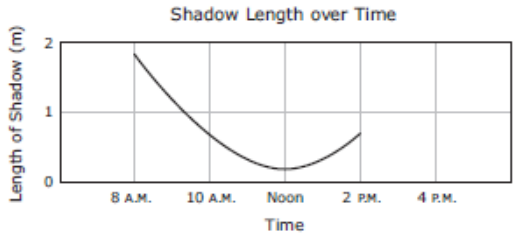
Source: Texas Education Agency STAAR™ Released Test Questions

IQ Analysis | Investigating the Question	4.8C	RC: 3
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	**Units:**	

4.8C

Q7

7 The graph below shows changes in the length of the shadow of a tree during part of a day.



If this day continues to be sunny, what will most likely happen to the length of the shadow from 2 P.M. to 4 P.M.?

A The length of the shadow will stay the same.

B The length of the shadow will decrease and then increase.

C The length of the shadow will increase.

D The length of the shadow will decrease.

*** Correct answer C**

Analysis		
Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
***C/H**		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.5A	RC: 1
5.5A 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	**Units:**	

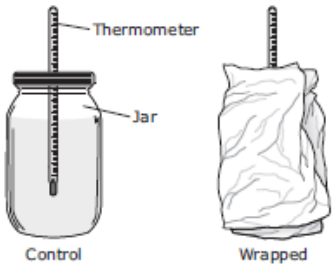
5.5A	Analysis		
Q2 **2** Which of these is the best conductor of electricity? **F** Glass rod **G** Cotton string **H** Plastic tubing **J** Copper penny *** Correct answer J**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
	% **A/F** **B/G** **C/H** **D/J***	**Error Type** ☐ Procedural ☐ Application ☐ Conceptual ☐ Guessing	
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.5A	Analysis		
Q10 **10** A teacher mixes a white powder into a beaker of water. The powder cannot be seen in the water. The teacher then heats the mixture until the water evaporates and the powder can be seen again. Which property of the powder is the teacher demonstrating? **F** Solubility **G** Density **H** Conductivity **J** Mass *** Correct answer F**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard	5.2A	
	% **A/F*** **B/G** **C/H** **D/J**	**Error Type** ☐ Procedural ☐ Application ☐ Conceptual ☐ Guessing	
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.5A

Q26

26 A teacher sets up an experiment using five jars like the ones shown below. The teacher keeps one jar unwrapped as the control. The other four jars are wrapped with equal thicknesses of four different materials.



The jars are each filled with an equal amount of water that is 92°C. Students observe and record the water temperature in each jar after 10 minutes. The results are shown in the table below.

Water Temperature After 10 Minutes

Material Wrapping Jar	Water Temperature (°C)
No wrapping (control)	84
Newspaper	87
Construction paper	87
Paper towel	85
Cotton towel	90

Which property of the materials wrapping the jars are the students most likely investigating?

F State of matter

G Thermal energy insulation

H Thermal energy production

J Ability to conduct electricity

*** Correct answer G**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2A	
	%	**Error Type**
A/F		☐ Procedural
B/G*		☐ Application
C/H		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.5A

Q33

33 A student reads the label on the bottle of salad dressing shown below.

Why would the student shake the salad dressing well before using it?

A Vinegar and oil have different densities.

B Vinegar and oil easily form a solution.

C Vinegar and oil both contain water.

D Vinegar and oil are both liquids.

*** Correct answer A**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
***A/F**		☐ Procedural
B/G		☐ Application
C/H		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.5B	RC:1
5.5B identify the boiling and freezing/melting points of water on the Celsius scale	**Units:**	

5.5B	Analysis		
Q14 **14** A student measures the temperature of water being heated on a hot plate. The student observes that the temperature of the water is 53°C. How many more degrees Celsius must the temperature rise before it reaches the boiling temperature of water? Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value. *** Correct answer 47**	**Type**	☐ Readiness ☒ Supporting	
	Data		
	Process Standard		
		%	**Error Type**
	A/F		☐Procedural
	B/G		☐Application
	C/H		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.5C	RC: 1
5.5C demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand	**Units:**	

5.5C

Q21

21 A mixture of beads was placed in a container, as shown below. The beads are of various sizes, and each one is made of plastic, glass, or steel.

The mixture would be easy to separate because all the beads —

A are less dense than water

B are solids

C have the same mass

D are attracted to a magnet

*** Correct answer B**

Analysis

Type	☐ Readiness ☒ Supporting	
Data		
Process Standard		
	%	**Error Type**
A/F		☐Procedural
***B/G**		☐Application
C/H		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

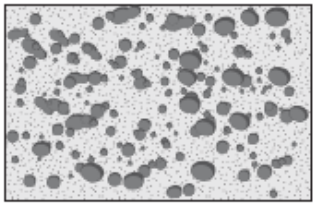
IQ Analysis | Investigating the Question	5.5D	RC: 1
5.5D identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water	**Units:**	

5.5D

Q40

40 A worker built a sidewalk and pressed some large salt particles into the concrete while it was still wet. When the concrete was dry, the worker washed the sidewalk with water. The picture below shows the sidewalk after it was washed.

Holes in Concrete



What most likely happened to the salt?

F It evaporated into a gas.

G It turned into concrete.

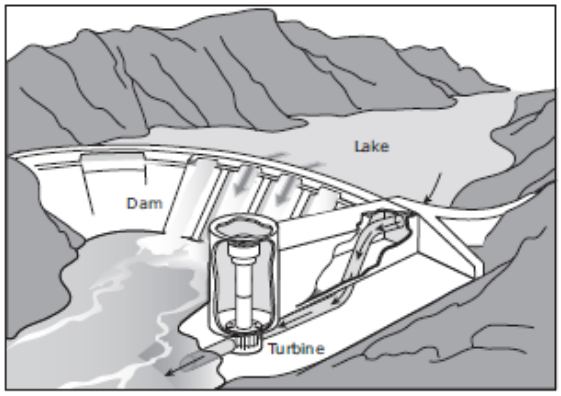
H It dissolved in the water.

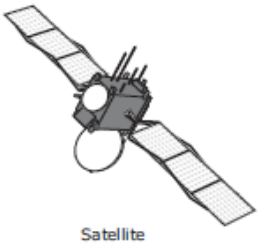
J It turned into a solid.

*** Correct answer H**

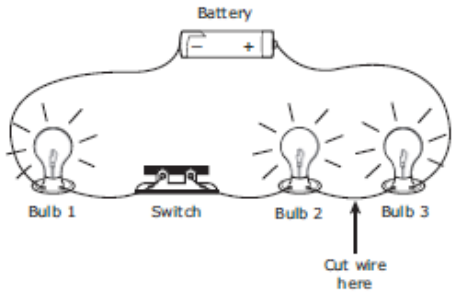
Analysis		
Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
C/H*		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.6A	RC: 2
5.6A explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy	**Units:**	

5.6A	Analysis		
Q6	**Type**	☒ Readiness ☐ Supporting	
6 Water flows through turbines in dams like the one shown below. The flowing water makes the turbines spin.	**Data**		
	**Process Standard**	5.2D	
What type of energy is used to make the turbines spin in this type of dam?		**%**	**Error Type**
F Light energy	**A/F**		☐Procedural
G Thermal energy	**B/G**		☐Application
H Sound energy	**C/H**		☐Conceptual
J Mechanical energy	**D/J***		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4
*** Correct answer J**			

5.6A	Analysis		
Q18	**Type**	☒ Readiness ☐ Supporting	
18 Three different objects that use the same source of energy are shown below.	**Data**		
 Energy-efficient house  Calculator  Satellite	**Process Standard**	5.2D	
What is the energy source for these objects?		**%**	**Error Type**
F Light energy	**A/F***		☐Procedural
G Mechanical energy	**B/G**		☐Application
H Sound energy	**C/H**		☐Conceptual
J Electrical energy	**D/J**		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4
*** Correct answer F**			

IQ Analysis | Investigating the Question	5.6B	RC: 2
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	**Units:**	

5.6B	Analysis		
Q16	**Type**	☒ Readiness ☐ Supporting	
	**Data**		
	Process Standard		
		%	**Error Type**
	A/F*		☐Procedural
	B/G		☐Application
	C/H		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

16 The diagram shows a series circuit with three lit bulbs. How many of the bulbs will remain lit if the wire is cut at the point shown by the arrow?

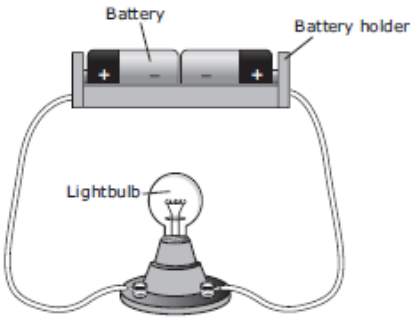
F 0

G 1

H 2

J 3

*** Correct answer F**

5.6B	Analysis		
Q35	**Type**	☒ Readiness ☐ Supporting	
35	**Data**		
	Process Standard		
		**%**	**Error Type**
	A/F		☐Procedural
	B/G		☐Application
	***C/H**		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

Which of these changes to the electric circuit shown above will cause the lightbulb to light up?

A Straightening the wire so that the current can flow more easily

B Adding a switch and more wire so that the current can flow more easily

C Turning one battery so that its positive end connects to the other battery's negative end

D Making the length of wire the same on both sides of the lightbulb

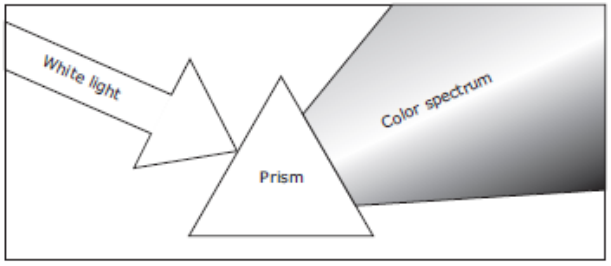
*** Correct answer C**

 Source: Texas Education Agency STAAR™ Released Test Questions lead4ward

5.6B	Analysis		
Q43 **43** A string of lights with small bulbs is shown below. The bulbs are connected by wire that is covered with an insulator.  When the lights are on, electricity travels in — **A** a complete circuit **B** a sound wave **C** a light ray **D** an incomplete path *** Correct answer A**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
		%	**Error Type**
	***A/F**		☐Procedural
	B/G		☐Application
	C/H		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

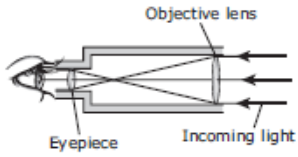
IQ Analysis | Investigating the Question	5.6C	RC: 2
5.6C demonstrate that light travels in a straight line until it strikes an object or travels through one medium to another and demonstrate that light can be reflected such as the use of mirrors or other shiny surfaces and refracted such as the appearance of an object when observed through water	**Units:**	

5.6C	Analysis		
Q4 4 Which of these best demonstrates the reflection of light? F Looking through the glass of a large window G Looking at an image formed on a silver spoon H Looking at a lightbulb that is glowing J Looking at a star on a clear night *** Correct answer G**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
	%	**Error Type**	
	A/F	☐Procedural	
	B/G*	☐Application	
	C/H	☐Conceptual	
	D/J	☐Guessing	
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.6C	Analysis		
Q23 23 When light travels through air into a prism, it bends and separates into many colors.  In which other situation does light bend? A When light moves through air into water B When light hits a wall C When light passes through outer space D When light hits a mirror *** Correct answer A**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard	5.4A	
	%	**Error Type**	
	***A/F**	☐Procedural	
	B/G	☐Application	
	C/H	☐Conceptual	
	D/J	☐Guessing	
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.6C	Analysis		
Q31	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard	5.3C	
		%	**Error Type**
	A/F		☐ Procedural
	B/G		☐ Application
	C/H		☐ Conceptual
	***D/J**		☐ Guessing
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

31 Scientists use telescopes to make distant objects appear closer. Some parts of a telescope are shown below.



Which of the following best describes how the objective lens of this telescope helps a scientist observe the moon?

A The objective lens produces light.

B The objective lens blocks light.

C The objective lens reflects light.

D The objective lens refracts light.

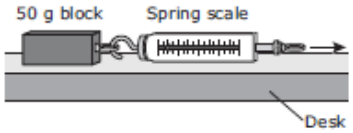
*** Correct answer D**

IQ Analysis | Investigating the Question	5.6D	RC: 2
5.6D design an experiment that tests the effect of force on an object	**Units:**	

5.6D

Q41

41 A student uses a spring scale to pull a 50-gram block horizontally across a wood desk. Then the student pulls the block the same distance across surfaces of carpet, sandpaper, and glass.



Which question is this investigation most likely designed to answer?

A How do blocks of different sizes react to force?

B How do different surfaces affect the amount of force needed to move a block?

C How do blocks affect spring scales?

D How does the mass of a block change when it is pulled across a desk?

*** Correct answer B**

Analysis

Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2B	
	%	**Error Type**
A/F		☐Procedural
***B/G**		☐Application
C/H		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.7A	RC: 3
5.7A explore the processes that led to the formation of sedimentary rocks and fossil fuels	**Units:**	

5.7A

Q17

17 The diagram below shows the sequence of the processes that turn solid rock into sandstone.

Which two processes best complete this diagram?

A Melting and cooling

B Erosion and compaction

C Compaction and cementation

D Evaporation and dissolving

*** Correct answer C**

Analysis		
Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
***C/H**		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.7B	RC: 3
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	**Units:**	

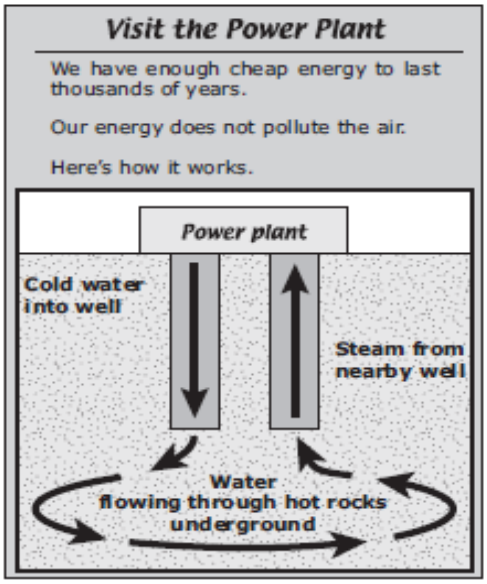
5.7B	Analysis		
Q20 **20** Glaciers are masses of ice that move slowly on land. Which of these features was most likely formed by a glacier? **F** A wide valley **G** A deep ocean **H** A lava flow **J** A mountain range *** Correct answer F**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
		%	**Error Type**
	A/F*		☐ Procedural
	B/G		☐ Application
	C/H		☐ Conceptual
	D/J		☐ Guessing
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.7C	RC: 3
5.7C identify alternative energy resources such as wind, solar, hydroelectric, geothermal, and biofuels	**Units:**	

5.7C

Q24

24 The poster shown below advertises tours of a power plant.



This power plant produces electricity most likely by using —

F fossil fuels

G biofuels

H solar energy

J geothermal energy

*** Correct answer J**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
C/H		☐ Conceptual
D/J*		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.7C

Q30

30 Many cities are taking actions to cause less harm to the environment. Which action produces energy from an alternative source?

F Burning coal to heat homes

G Replacing lawns with plants that require less water

H Using biofuels to generate electricity

J Building a new water-treatment plant to improve water quality

*** Correct answer H**

Analysis

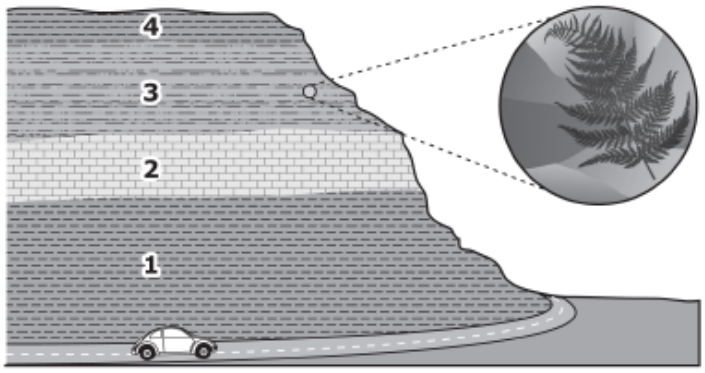
Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.1B	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
C/H*		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.7D	RC: 3
5.7D identify fossils as evidence of past living organisms and the nature of the environments at the time using models	**Units:**	

5.7D

Q9

9 The diagram below shows rock layers next to a road.



Layer 3 contains many plant fossils. Layer 3 most likely formed in which of these environments?

A Desert

B Forest

C Ocean

D Tundra

*** Correct answer B**

Analysis

Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐Procedural
***B/G**		☐Application
C/H		☐Conceptual
D/J		☐Guessing
Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

Source: Texas Education Agency STAAR™ Released Test Questions

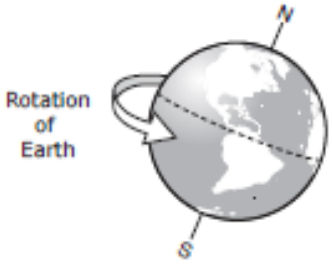
IQ Analysis | Investigating the Question	5.8A	RC: 3
5.8A differentiate between weather and climate	**Units:**	

5.8A	**Analysis**		
Q37 **37** Which of these best describes climate rather than weather? **A** Wind speed is changing as a storm moves through an area. **B** The temperature is decreasing in a slow-moving cold front. **C** Annual high temperatures in the summer have increased over many decades. **D** The rainfall during one year was greater than the rainfall during the following year. *** Correct answer C**	**Type**	☐ Readiness ☒ Supporting	
	Data		
	Process Standard		
		%	**Error Type** ☐Procedural ☐Application ☐Conceptual ☐Guessing
	A/F		
	B/G		
	***C/H**		
	D/J		
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.8B	RC: 3
5.8B explain how the Sun and the ocean interact in the water cycle	**Units:**	

5.8B	**Analysis**		
Q15 **15** Which of the following events in the water cycle is an example of solar energy being absorbed? **A** Water vapor condensing to form clouds **B** Water evaporating from the surface of an ocean **C** Rain freezing as it falls toward the ground **D** Clouds releasing precipitation over a mountain *** Correct answer B**	**Type**		☐ Readiness ☒ Supporting
	Data		
	Process Standard		
		%	**Error Type**
	A/F		☐Procedural
	***B/G**		☐Application
	C/H		☐Conceptual
	D/J		☐Guessing
	Taught v. learned		☐Similar to examples (taught) ☐Requires application (learned)
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.8C	RC: 3
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	**Units:**	

5.8C	Analysis		
Q5	**Type**	☒ Readiness ☐ Supporting	
	**Data**		
	Process Standard		
		%	**Error Type**
	***A/F**		☐Procedural
	B/G		☐Application
	C/H		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4
5 Which of these cycles is a direct result of Earth's rotation? **A** Day and night **B** Moon phases **C** Rainfall and evaporation **D** Seasons			
*** Correct answer A**			

5.8C	Analysis		
Q32	**Type**	☒ Readiness ☐ Supporting	
32 On which side of a house in Texas should a window be placed so that the people inside the house can see the sunrise each day through the window? **F** North **G** South **H** East **J** West	**Data**		
	Process Standard		
		%	**Error Type**
	A/F		☐Procedural
	B/G		☐Application
	C/H*		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4
*** Correct answer H**			

IQ Analysis | Investigating the Question	5.9A	RC: 4
5.9A observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements	**Units:**	

5.9A	Analysis		
Q3 **3** Some beetles break down the remains of dead animals. Some mushrooms break down the remains of dead trees. How do these actions most benefit plants? **A** By returning nutrients to the soil **B** By releasing oxygen into the air **C** By making space for new animals **D** By decreasing the population of herbivores *** Correct answer A**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
		%	**Error Type**
	***A/F**		☐ Procedural
	B/G		☐ Application
	C/H		☐ Conceptual
	D/J		☐ Guessing
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.9A	Analysis		
Q25 **25** Some facts about a bird called the painted redstart are listed in the box shown below. Facts About the Painted Redstart  1. Builds nests on hillsides covered with dense vegetation 2. Usually raises one group of young each year 3. Hunts for insects and spiders on plant leaves 4. Feeds on sugar water and peanut butter at feeders Which fact best describes one way this bird changes its environment to meet its needs? **A** Fact 1 **B** Fact 2 **C** Fact 3 **D** Fact 4 *** Correct answer A**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard	5.2D	
		%	**Error Type**
	***A/F**		☐ Procedural
	B/G		☐ Application
	C/H		☐ Conceptual
	D/J		☐ Guessing
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.9A	Analysis		
Q29 **29** In fall and winter many trees lose their leaves in response to cooler temperatures and — **A** a decrease in average wind speed **B** fewer hours of daylight **C** an increase in humidity **D** more direct sunlight *** Correct answer B**	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
		%	**Error Type**
	A/F		☐Procedural
	***B/G**		☐Application
	C/H		☐Conceptual
	D/J		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

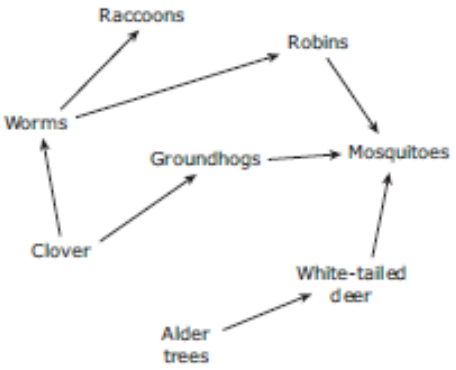
IQ Analysis | Investigating the Question

5.9B	RC: 4
5.9B describe how the flow of energy derived from the Sun, used by producers to create their own food, is transferred through a food chain and food web to consumers and decomposers	**Units:**

5.9B

Q8

8 The food web below represents organisms in a field.



What role do raccoons play in this food web?

F Prey

G Producer

H Decomposer

J Consumer

*** Correct answer J**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.3C	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
C/H		☐ Conceptual
D/J*		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.9B

Q27

27 The diets of several types of prairie animals are described in the table below.

Diets of Some Prairie Animals

Type of Animal	Foods Eaten
Badger	Prairie dogs, rabbits
Prairie dog	Leaves, stems, and roots of grasses
Grasshopper	Grasses, wildflowers
Sparrow	Insects, seeds
Coyote	Prairie dogs, rabbits
Eagle	Prairie dogs, rabbits, coyotes

Which of the following prairie food chains is in the correct order?

A Eagles → prairie dogs → coyotes

B Wildflowers → badgers → grasshoppers

C Sparrows → seeds → insects

D Grasses → prairie dogs → badgers

*** Correct answer D**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
C/H		☐ Conceptual
***D/J**		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.9C	RC: 4
5.9C predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways	**Units:**	

5.9C

Q36

36 The picture below shows a type of plant called kudzu. Kudzu is a fast-growing Asian vine that was introduced into the United States. Kudzu quickly uses available resources and can completely cover the plants in an area.

What effect does the rapid growth of kudzu most likely have on an ecosystem?

F The variety of native plants decreases.

G The water supply in the area increases.

H Weather patterns in the area change.

J The number of other plants increases.

*** Correct answer F**

Analysis

Type	☐ Readiness ☒ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F*		☐ Procedural
B/G		☐ Application
C/H		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.9D	RC: 4
5.9D identify the significance of the carbon dioxide-oxygen cycle to the survival of plants and animals	**Units:**	

5.9D	Analysis		
Q42	**Type**	☐ Readiness ☒ Supporting	
	Data		
	Process Standard		
42 Many types of plants grow in a forest ecosystem. How do plants affect the air that forest animals breathe?		**%**	**Error Type**
F Plants use oxygen from the air to make food.	**A/F**		☐Procedural
G Plants release pollution into the air.	**B/G**		☐Application
H Plants release energy from the sun into the air.	**C/H**		☐Conceptual
J Plants take in carbon dioxide and release oxygen into the air.	**D/J***		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4
*** Correct answer J**			

IQ Analysis | Investigating the Question	5.10A	RC: 4
5.10A compare the structures and functions of different species that help them live and survive such as hooves on prairie animals or webbed feet in aquatic animals	**Units:**	

5.10A

Q22

Prickly Pear Cactus

22 Which two traits best help a cactus conserve water in the dry conditions of a West Texas desert ecosystem?

F Large flowers and sweet fruit

G Sweet fruit and sharp spines

H Sharp spines and waxy stems

J Waxy stems and large flowers

*** Correct answer H**

Analysis

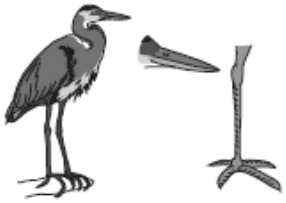
Type	☒ Readiness ☐ Supporting	
Data		
Process Standard		
	%	**Error Type**
A/F		☐ Procedural
B/G		☐ Application
C/H*		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.10A

Q44

44 Eagles catch fish in rivers with their talons. They fly with the fish to a tree branch and tear the fish into small pieces. Which bird most likely catches and eats its food the way an eagle does?

F



H

G

J

*** Correct answer G**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
B/G*		☐ Application
C/H		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

IQ Analysis | Investigating the Question	5.10B	RC:4
5.10B differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle	**Units:**	

5.10B

Q13

13 Fox squirrels live in the trees of city parks throughout Texas. Each spring they build nests of twigs and leaves in the tops of the trees. Fox squirrels are often found near park benches, waiting to be fed by visitors.

Fox squirrel

For fox squirrels, which of these is a learned behavior?

A Building a nest each spring

B Taking food from people

C Having a long, bushy tail

D Having sharp claws

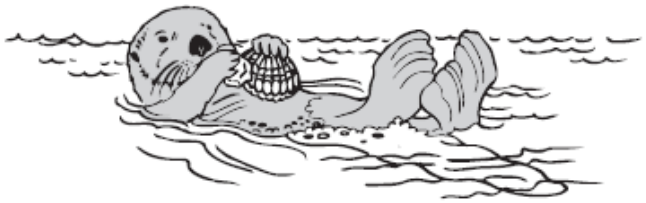
*** Correct answer B**

Analysis

Type	☒ Readiness ☐ Supporting	
Data		
Process Standard	5.2D	
	%	**Error Type**
A/F		☐ Procedural
***B/G**		☐ Application
C/H		☐ Conceptual
D/J		☐ Guessing
Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

5.10B	Analysis		
Q19	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard	5.2B	
		%	**Error Type**
	A/F		☐ Procedural
	B/G		☐ Application
	***C/H**		☐ Conceptual
	D/J		☐ Guessing
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

19 A scientist observes sea otters using rocks to break open clamshells.



Which of these investigations would best help the scientist determine whether this skill is a learned or an inherited behavior?

A Determining what sizes and kinds of rocks are used most often by sea otters

B Determining whether shellfish are an important food source in the diet of sea otters

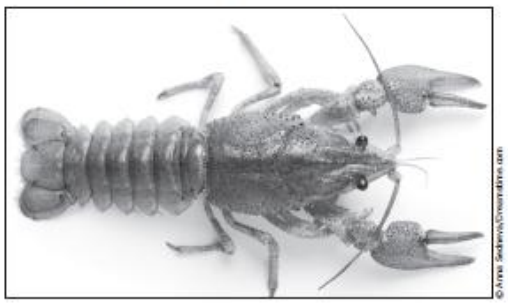
C Raising young sea otters away from adult otters that use rocks and observing whether the young otters use rocks

D Observing families of sea otters over time to see whether adults that use rocks have offspring that use rocks

*** Correct answer C**

5.10B	Analysis		
Q39	**Type**	☒ Readiness ☐ Supporting	
	Data		
	Process Standard		
		%	**Error Type**
	A/F		☐ Procedural
	***B/G**		☐ Application
	C/H		☐ Conceptual
	D/J		☐ Guessing
	Taught v. learned	☐ Similar to examples (taught) ☐ Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

39 Crayfish live in water and often hide under rocks or plants. They come out to look for food and will eat both plants and animals.



Which of these is a trait that a crayfish most likely inherits from its parents?

A The average distance it travels each day

B The number of legs it has

C The amount of food it eats each day

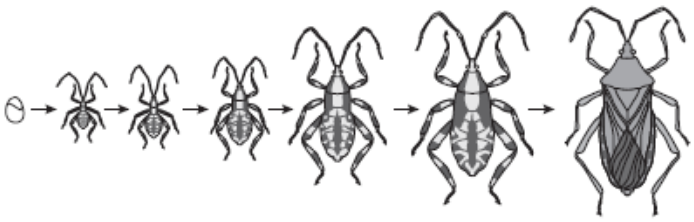
D The type of plants in its habitat

*** Correct answer B**

IQ Analysis | Investigating the Question	5.10C	RC:4
5.10C describe the differences between complete and incomplete metamorphosis of insects	**Units:**	

5.10C	Analysis		
Q34	**Type**	☐ Readiness ☒ Supporting	
	Data		
	Process Standard	5.2D	
		%	**Error Type**
	A/F		☐Procedural
	B/G		☐Application
	C/H		☐Conceptual
	D/J*		☐Guessing
	Taught v. learned	☐Similar to examples (taught) ☐Requires application (learned)	
	Question Level (Depth of Knowledge)	☐ Level 1 ☐ Level 2	☐ Level 3 ☐ Level 4

34 The stages in the development of an insect are shown below.



Which observation best supports the conclusion that this insect undergoes incomplete metamorphosis?

F The insect changes color when it becomes an adult.

G The first stage of the insect's development is as an egg.

H The insect undergoes more than four stages in its development.

J The insect has similar body parts throughout its development.

*** Correct answer J**

Source: Texas Education Agency STAAR™ Released Test Questions