

# STAR Test Sample Questions

## 5th Grade Science

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# Standardized Testing and Reporting - STAR

## Grade 5: Science

### Earth Sciences (Performance Level: Advanced) – Question 01

The chart below shows a part of Mohs hardness scale for minerals.

**Mohs Scale of Hardness**

Mineral	Talc	Gypsum	Calcite	Fluorite	Apatite
Hardness	1	2	3	4	5

A student is testing an unknown mineral for hardness. The unknown mineral is tested against fluorite, but neither mineral scratches the other. Which of the following conclusions can the student accurately make?

- A The unknown mineral and apatite will not scratch each other.
- B The unknown mineral and calcite will not scratch each other.
- C The unknown mineral will scratch apatite.
- D The unknown mineral will scratch calcite.

## Grade 5: Science

### Earth Sciences (Performance Level: Proficient) – Question 01

Why are *most* fossils found in sedimentary rocks?

- A Sedimentary rocks are not very old.
- B Organisms live only in areas with sedimentary rock.
- C Organisms can be preserved in sedimentary rock.
- D Sedimentary rocks are found only at the surface of the ground.

## Grade 5: Science

### Earth Sciences (Performance Level: Proficient) – Question 02

The landform below is a sea arch.



What is responsible for shaping this arch?

- A plate tectonics
- B earthquakes
- C deposition
- D erosion

## Grade 5: Science

### Earth Sciences (Performance Level: Proficient) – Question 03

Moving water was the most important factor in forming which of these?

- A the Grand Canyon
- B San Andreas Fault
- C the Rocky Mountains
- D Mount St. Helens Volcano

# Grade 5: Science

## Earth Sciences (Performance Level: Basic) – Question 01

Which of the following processes is responsible for changing liquid water into water vapor?

- A     photosynthesis
- B     condensation
- C     evaporation
- D     precipitation

## Grade 5: Science

### Earth Sciences (Performance Level: Basic) – Question 02

The largest body in our solar system is

- ☐ A Earth.
- ☐ B the Sun.
- ☐ C Jupiter.
- ☐ D the Moon.

# Grade 5: Science

## Earth Sciences (Performance Level: Basic) – Question 03

Which of these revolves around a planet?

- ☐ A an asteroid
- ☐ B a star
- ☐ C a comet
- ☐ D a moon



# Grade 5: Science

## Earth Sciences (Performance Level: Below Basic) – Question 01

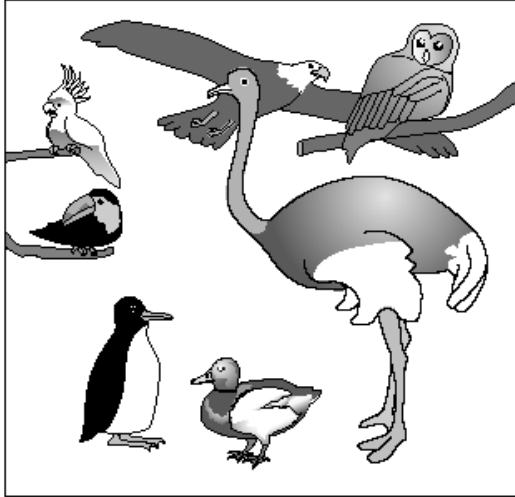
Where is most of Earth's water located?

- ☐ A glaciers
- ☐ B lakes
- ☐ C oceans
- ☐ D rivers

## Grade 5: Science

### Investigation and Experimentation (Performance Level: Proficient) – Question 01

The picture below shows several different birds.



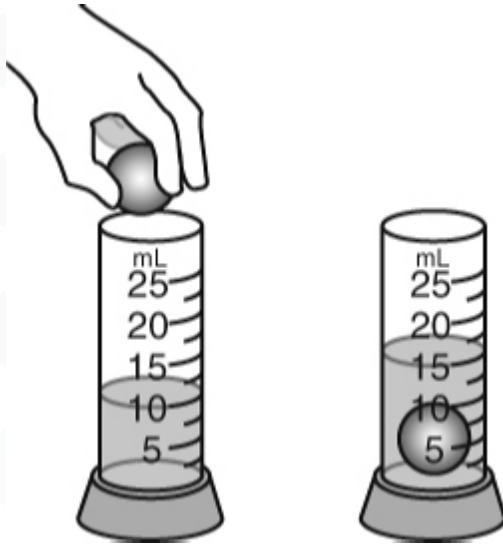
What characteristic do all birds share?

- ☐ A They can fly.
- ☐ B They have feathers.
- ☐ C They have webbed feet.
- ☐ D They eat worms.

## Grade 5: Science

### Investigation and Experimentation (Performance Level: Proficient) – Question 02

A student added a small ball to a graduated cylinder containing 10 milliliters of water.



What is the volume of the ball?

- A 5 mL
- B 10 mL
- C 15 mL
- D 20 mL

## Grade 5: Science

### *Life Sciences (Performance Level: Advanced) – Question 01*

**Which organ removes cell waste from the blood?**

- A the large intestine
- B the small intestine
- C the kidney
- D the heart

## Grade 5: Science

### *Life Sciences (Performance Level: Advanced) – Question 02*

Which of the following best explains how stems transport water to other parts of the plant?

- A through a chemical called chlorophyll
- B by using photosynthesis
- C through a system of tubes
- D by converting water to food

## Grade 5: Science

### *Life Sciences (Performance Level: Advanced) – Question 03*

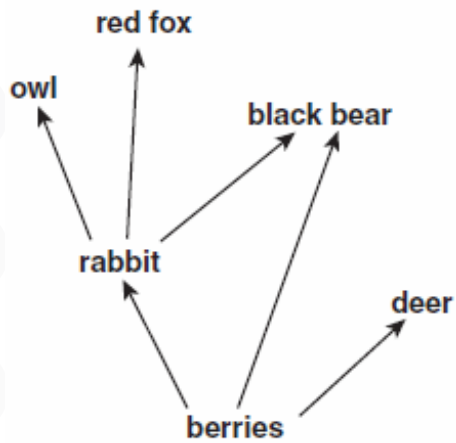
Which of the following is broken down in the body to release energy?

- A sugar
- B water
- C salt
- D oxygen

## Grade 5: Science

### Life Sciences (Performance Level: Advanced) – Question 04

The diagram below shows a simple food web.



Which animal is classified as an omnivore?

- A red fox
- B deer
- C black bear
- D rabbit

# Grade 5: Science

## Life Sciences (Performance Level: Proficient) – Question 01

Which best describes the role of the esophagus in digestion?

- A It releases acid and mixes food.
- B It aids in absorption of nutrients from food.
- C It carries food from the mouth to the stomach.
- D It carries food from the stomach to the intestines.



## Grade 5: Science

### Life Sciences (Performance Level: Basic) – Question 01

A student wants to put some plants in a window-box planter. The window selected for the plants is always shaded by a large tree outside the window.



Which characteristic of the plants would most likely affect the plants' growth in this location?

- ☐ A leaf shape
- ☐ B light requirement
- ☐ C plant price
- ☐ D flower color

# Grade 5: Science

## Physical Sciences (Performance Level: Advanced) – Question 01

Which best describes a parallel circuit?

- A Electricity flows along one pathway.
- B The flow of electricity comes from one source.
- C Electricity flows along more than one pathway.
- D The flow of electricity comes from more than one source.

## Grade 5: Science

### Physical Sciences (Performance Level: Advanced) – Question 02

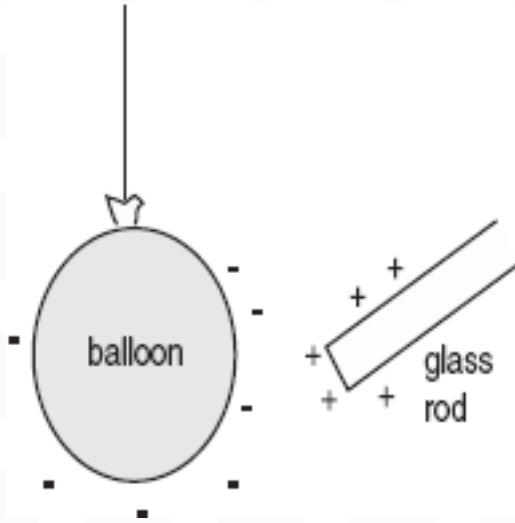
Sterling silver is a combination of silver and copper. Which of the following is also a combination of two or more metals?

- A     aluminum
- B     lead
- C     gold
- D     brass

## Grade 5: Science

### Physical Sciences (Performance Level: Proficient) – Question 01

A balloon has a negative charge. A glass rod has a positive charge.



What will happen when the glass rod is brought near the balloon?

- A The balloon will be attracted to the rod.
- B The balloon will be repelled by the rod.
- C The balloon will remain in place.
- D The balloon will spin in circles.

## Grade 5: Science

### Physical Sciences (Performance Level: Proficient) – Question 02

A scientist needs to take a picture of the well-ordered arrangements of the atoms and molecules within a substance. Which of the following instruments would be best for the scientist to use?

- A a laser light with holograph
- B a seismograph
- C an electron microscope
- D a stereoscope

## Grade 5: Science

### Physical Sciences (Performance Level: Proficient) – Question 03

Which of the following is a property of CO<sub>2</sub> gas?

- ☐ A It feels like a rock.
- ☐ B It smells like a lemon.
- ☐ C It is colorless.
- ☐ D It is hard.

## Grade 5: Science

### Physical Sciences (Performance Level: Proficient) – Question 04

All living things contain which element?

- ☐ A helium
- ☐ B sodium
- ☐ C copper
- ☐ D carbon

## Grade 5: Science

### Physical Sciences (Performance Level: Below Basic) – Question 01

A metal spoon was left in a pot of boiling soup. The cook burned a finger by touching the spoon. Why did the finger get burned?

- ☐ A The metal spoon chemically reacted with the cook's hand.
- ☐ B The metal spoon conducted electricity to the cook's hand.
- ☐ C The metal spoon conducted heat to the cook's hand.
- ☐ D The metal spoon insulated the cook's hand.