

**COPERNICUS OLYMPIAD**  
Natural Sciences – Category 1 Sample Questions

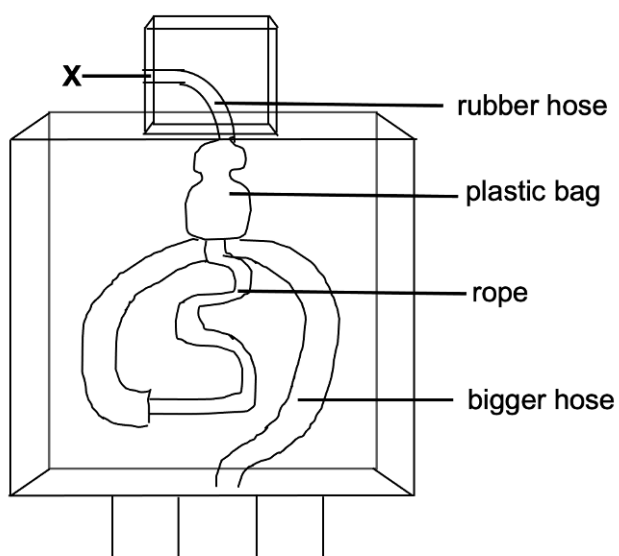
**Q:** Edmond Halley was able to predict that a comet seen in 1683 would return in 1758. How did Halley calculate the next arrival of this comet?

- A.** Using the laws of motion
- B.** Using the ripples theory of Einstein
- C.** Using the laws of conservation of mass
- D.** Using the law of gravitational theory of Newton

**Q:** What part of the moon does the Sun always illuminate?

- A.** one-half
- B.** one-third
- C.** one-fourth
- D.** whole part

**Q:** The diagram below shows a model of the human digestive system.  
**X** represents the mouth.



Which shows the correct digestive organ represented by each material?

**A.**

Rubber hose	esophagus
Plastic bag	small intestine
Rope	stomach
Bigger hose	large intestine

**B.**

Rubber hose	esophagus
Plastic bag	stomach
Rope	small intestine
Bigger hose	large intestine

**C.**

Rubber hose	stomach
Plastic bag	small intestine
Rope	esophagus
Bigger hose	large intestine

**D.**

Rubber hose	esophagus
Plastic bag	stomach
Rope	large intestine
Bigger hose	small intestine

**Q:** What property of metal makes it a good material for electrical wirings?

- A.** High conductivity
- B.** low conductivity
- C.** Low melting point
- D.** Luster

**Q:** Which of the following is **not** a mixture?

- A.** air
- B.** milk
- C.** steel
- D.** water

**Q:** There are three pots with different types of soil. Each pot has a hole at the bottom to allow water to pass through it. When you put an equal amount of water in each container, only pot B did not let the water pass through it.

What conclusion can you make based on your observation?

- A. Pot B has loam, which retains water in it.
- B. Pot B has clay, which can hold much water in it.
- C. Pot B has plenty of humus, which holds the water in it.
- D. Pot B has sand, which does not allow water to pass through.

**Q:** From the chart below, which of the following scenarios is certain to happen?

Date	City		
	Bree	Lorien	Rohan
Oct 4			

- A. It is raining right now in Lorien.
- B. The weather is overcast in Lorien.
- C. Heavy rains are experienced for the whole day in Rohan.
- D. There is a thunderstorm and scattered rain showers in Bree.

**Q:** What usually happens to absorbed light?

- A. It will bounce back.
- B. It will be converted to heat.
- C. It will pass through the object.
- D. It will bend away from the object.

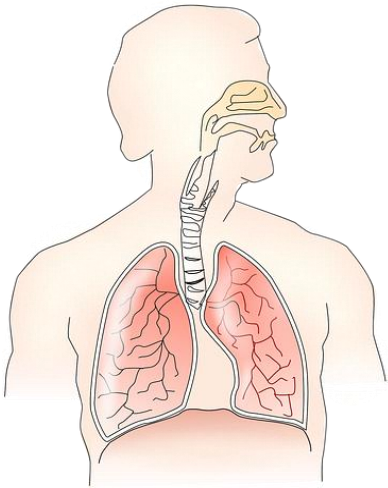
**Q:** Which of the following statements shows displacement?

- A. The ball rolled 50-cm forward.
- B. The car covered 40 meters in 10 minutes.
- C. The door is 3 meters away from the teacher's table.
- D. The runner took 3 minutes to finish one complete lap.

**Q:** Which is **not** a mechanical agent of weathering?

- A. animals
- B. plants
- C. oxygen
- D. wind

**Q:** Which body system is shown in the diagram below?



- A.** digestive system
- B.** excretory system
- C.** nervous system
- D.** respiratory system

**Q:** What type of adaptation is where one animal imitates the traits of another animal?

- A.** camouflage
- B.** instinct
- C.** mimicry
- D.** reflex

**Q:** Which gas mainly comprises Earth's atmosphere?

- A.** carbon dioxide
- B.** hydrogen
- C.** nitrogen
- D.** oxygen

**Q:** What kind of energy transformation is involved in the given image below?

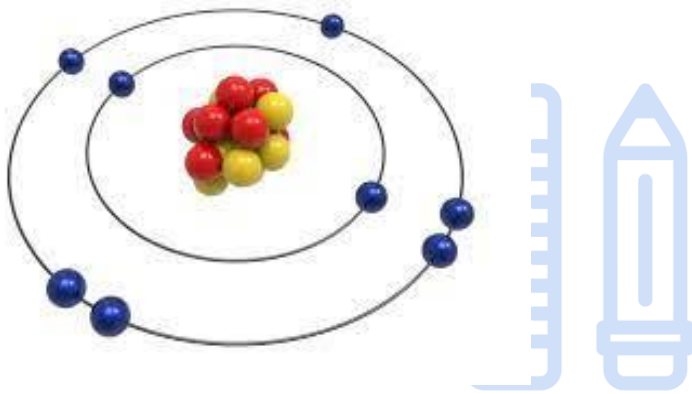


- A. light energy to chemical energy
- B. heat energy to electrical energy
- C. light energy to electrical energy
- D. chemical energy to heat energy

**Q:** Which planet is known to be the hottest due to the chemical composition of its atmosphere?

- A. Mars
- B. Neptune
- C. Saturn
- D. Venus

**Q:** Below is a model of an atom.



What subatomic particles are found in the nucleus of the atom?

- A. electron and proton
- B. electron and neutron
- C. neutron and proton
- D. electron, neutron, and proton

**Q:** Which of the followings cannot cause mechanical weathering?

- A. Acid
- B. Animals
- C. Water
- D. Wind

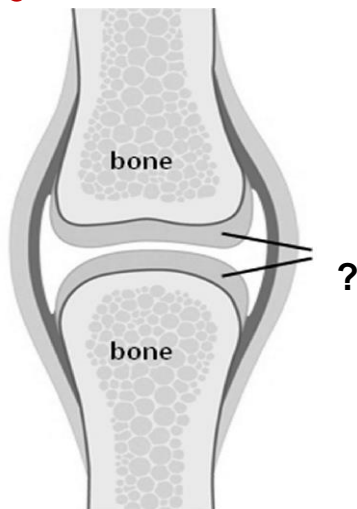
**Q:** \_\_\_\_\_ is a vibration that travels through the air or another medium and can be heard when they reach a person or animal's ear.

- A. Light
- B. Solar energy
- C. Sound
- D. Thermal energy

**Q:** The chemical makeup of the Sun is comprised mainly of \_\_\_\_\_

- A.** Hydrogen and Helium.
- B.** Hydrogen and Oxygen.
- C.** Hydrogen and Sulfate.
- D.** Oxygen and Helium.

**Q:** What tissue covers the ends of bones?



- A.** cartilage
- B.** ligaments
- C.** muscle
- D.** tendons



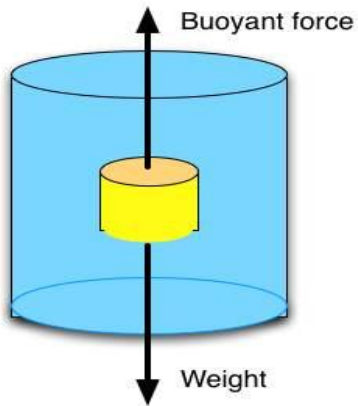
**Q:** Which of the following substances is a compound?

- A.** baking soda
- B.** milk
- C.** table salt
- D.** water

**Q:** Which type of precipitation is **not** solid?

- A.** hail
- B.** sleet
- C.** snow
- D.** rain

**Q:** Analyze the given diagram below.



Which statement best describes the buoyant force?

- A.** A downward force keeps an object afloat.
- B.** An upward force opposes the weight of an object.
- C.** A downward force prevents the object from floating.
- D.** An upward force goes with the direction of the weight of an object.

**Q:** Of all the species of plants and animals that have lived on earth, about what percentage are still alive?

- A.** 1%
- B.** 15%
- C.** 35%
- D.** 75%

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A TRADITION OF EXCELLENCE