MTC1 Integrated Physical Sciences Version 2

Section: Science & Statistics • **Total Questions:** 10 • **Format:** Verified Q&A

1. Which properties will elements in group 17 share, based on location in the periodic table? (Choose 2 answers.)

(A) Poor thermal conductivity
(B) Good thermal conductivity
(C) Good electrical conductivity
(D) Poor electrical conductivity

2. Which type of wave travels the slowest?

(A) Radio waves
(B) Gamma waves
(C) Visible light waves
(D) Sound waves

3. Which processes form winding, S-shaped curves in a river?

(A) Erosion and deposition by ice
(B) Erosion and deposition by wind
(C) Erosion and deposition by flowing water
(D) Erosion and deposition by gravity

4. The United States is located in the northern hemisphere. Which point in the diagram represents Earth's location at the time of year when the United States experiences the most direct sunlight?

(A) C
(B) A
(C) B
(D) D

5. What can the server conclude about the mass of the unbroken glass, according to the law of conservation of matter?

> *A server accidentally drops an empty glass. Upon hitting the floor, the glass breaks into many small pieces.*

(A) It is less than the total mass of the glass pieces.
(B) It is unrelated to the total mass of the glass pieces.
(C) It is greater than the total mass of the glass pieces.
(D) It is equal to the total mass of the glass pieces.

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6. A water molecule consists of two hydrogen atoms bonded to an oxygen atom. Which type of substance is water?

(A) Compound
(B) Mixture
(C) Isotope
(D) Element

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7. In which state of matter are particles closest together?

(A) Gas
(B) Liquid
(C) Plasma
(D) Solid

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8. Which process is responsible for the formation of V-shaped valleys?

(A) Erosion caused by ground water
(B) Erosion caused by ocean waves
(C) Erosion caused by flowing water
(D) Erosion caused by wind

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9. The model above represents the parts of an atom. What type of particle is B?

(A) Ion
(B) Proton
(C) Electron
(D) Neutron

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10. What caused this change in weather?

> *At the beginning of a camping trip, the weather is cloudy and rainy. However, by the middle of the trip, the skies are clear and cloudless with low humidity and only gentle breezes.*

(A) A high pressure system moving into the area during the middle of the trip

(B) A low pressure system moving into the area during the middle of the trip

(C) A warm front settling over the area during the middle of the trip

(D) A cold front settling over the area during the middle of the trip