

SCIENCE SCENARIO

Directions: Use the information presented on pages 24 and 25 to answer questions 19 through 22.

D.1.3.1

21. Which physical process caused the clouds observed by the student to form from water vapor in the air?

A condensation *

B distillation

C evaporation

D sublimation

- A *Key: Water vapor is invisible. Condensation is required for droplets to form that make up clouds.*
- B *Distillation is a method used to separate mixtures of substances with different boiling points.*
- C *Evaporation forms water vapor, which is an invisible gas.*
- D *Sublimation is a process that causes a solid to change to a gaseous state without going through the liquid phase. If sublimation occurred within a cloud, it would become invisible water vapor.*

A	B	C	D
42%	7%	45%	6%

A.2.2.2

22. On a particular day, the student notices that the sky is filled with clouds of many different sizes. The student counts the number of big clouds, medium clouds, and little clouds, and records the number of each type. According to which quantity did the student organize the clouds?

A elevation

B water content

C temperature

D relative volume *

- A *In order to organize the clouds, by elevation, the elevation above the land would have to be measured.*
- B *The darkness of the clouds might indicate water content, but the darkness was not recorded.*
- C *The temperature of the clouds would have to be recorded with some type of aerial probe in order to group the clouds by temperature.*
- D *Key: Because the student recorded size, this is an indication of relative volume.*

A	B	C	D
18%	24%	8%	49%