Properties Of Water

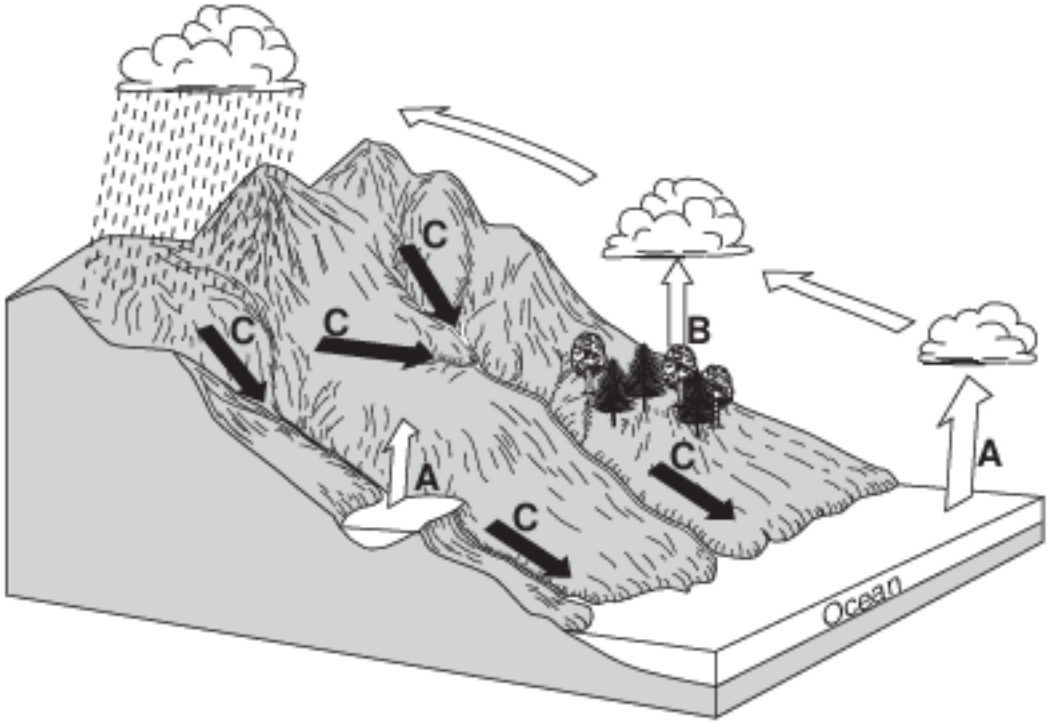
1 During which phase change does water release the most heat energy?
(1) freezing (3) condensation
(2) melting (4) vaporization

2 Which change in the heat energy content of water occurs when water changes phase from a liquid to a solid?
(1) gain of 334 Joules of heat energy per gram
(2) release of 334 Joules of heat energy per gram
(3) gain of 2260 Joules of heat energy per gram
(4) release of 2260 Joules of heat energy per gram

3 During the process of condensation, water vapor
(1) releases 334 J/g of heat energy
(2) releases 2260 J/g of heat energy
(3) gains 334 J/g of heat energy
(4) gains 2260 J/g of heat energy

4 Which process releases 2260 joules of heat energy per gram of water into the environment?
(1) melting (3) condensation
(2) freezing (4) evaporation

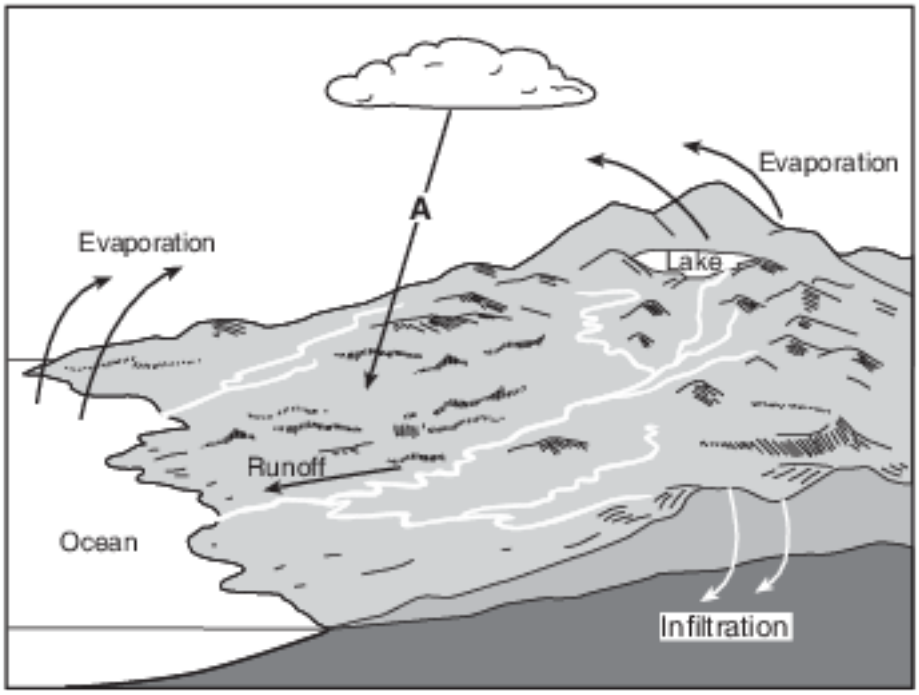
Base your answers to questions 5 on the diagram below and on your knowledge of Earth science. The diagram represents the water cycle. Letters A through C represent different processes in the water cycle.



(Not drawn to scale)

5 In order for process A to occur, liquid water must
(1) gain 334 Joules per gram (3) lose 334 Joules per gram
(2) gain 2260 Joules per gram (4) lose 2260 Joules per gram

Base your answers to questions 6 on the model below and on your knowledge of Earth science. The model shows the movement of water in the water cycle. Arrow A represents a process within the water cycle.



6 How many joules of heat energy are required to evaporate 2 grams of water from the lake surface? [1]

J

Answer Keys

1 3

2 2

3 2

4 3

5 2

6 Allow 1 credit for 4520 J.