

DC CAPE Science Grade 8 Practice Test Answer Key

1	B
2	Gold: The smallest sample would contain one atom Pyrite: Individual atoms of different types repeat to form extended structures Gold and pyrite: Atoms are connected so that they form a rigid, repeatable structure
3	B
4	Part A: B Part B: C
5	Time for food coloring to distribute evenly; Air temperature 2.5 cm from the glass
6	A
7	D
8	B
9	Positive Impact: energy resources Negative Impact: downstream water quality; floodplain habitats; salmon spawning
10	is not; reduces
11	Part A: Hotspot 3 Part B: C
12	both genetics and the environment; better beef taste; early puberty

Answer Key (continued)

13	larger; was no fishing pressure; bigger
14	Criterion: Time it takes ice to melt by 50% Constraints: Water bottle material; Water bottle cost
15	transfer into; transfer out of
16	C
17	minimize; outside; inside
18	Part A: B Part B: B
19	the sun; gravity
20	light; maximize

Question 21 Scoring Guide

Response Criteria	
3	All three parts are correct. Award 1 point for each fully correct part: Part A, Part B, and Part C.
2	Two of the three parts are fully correct.
1	One of the three parts is fully correct.
0	None of the three parts is fully correct, or the response is blank or irrelevant.

Exemplar Answers

Part A: Sunlight heats water in the lake. Water evaporates into the atmosphere, condenses to form clouds, falls as precipitation on the hills, and flows downhill over land and back to the lake.

Part B: Energy from the Sun heats water at Earth's surface and causes water to evaporate into the atmosphere.

Part C: Energy from the Sun causes lake water to evaporate and move into the atmosphere. The water later falls as precipitation. Gravity pulls the water downhill across the land and back to the lake.