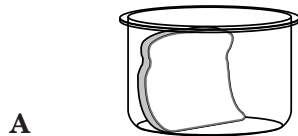


SCIENCE
Grade 5

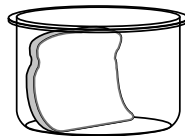
2008 Released Items

Hypothesis: Bread mold needs moisture in order to grow.

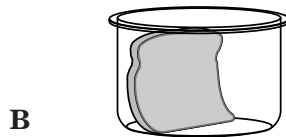
1 Which experimental setup should be used to test this hypothesis?



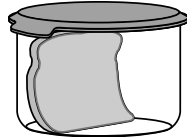
25 open containers
with dry bread



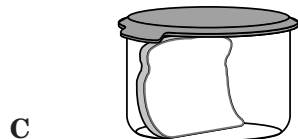
25 open containers
with dry bread



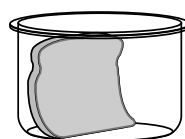
25 open containers
with moist bread



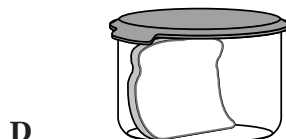
25 closed containers
with moist bread



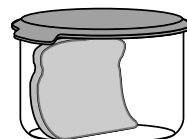
25 closed containers
with dry bread



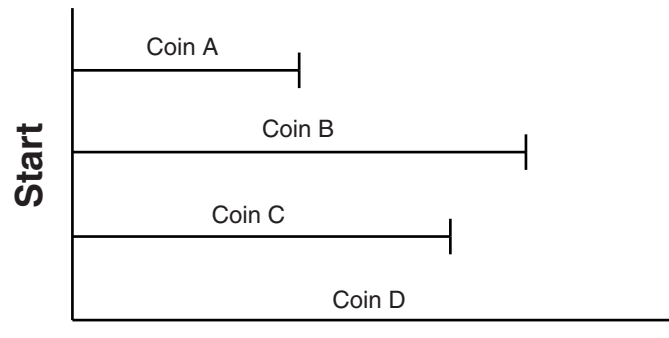
25 open containers
with moist bread



25 closed containers
with dry bread

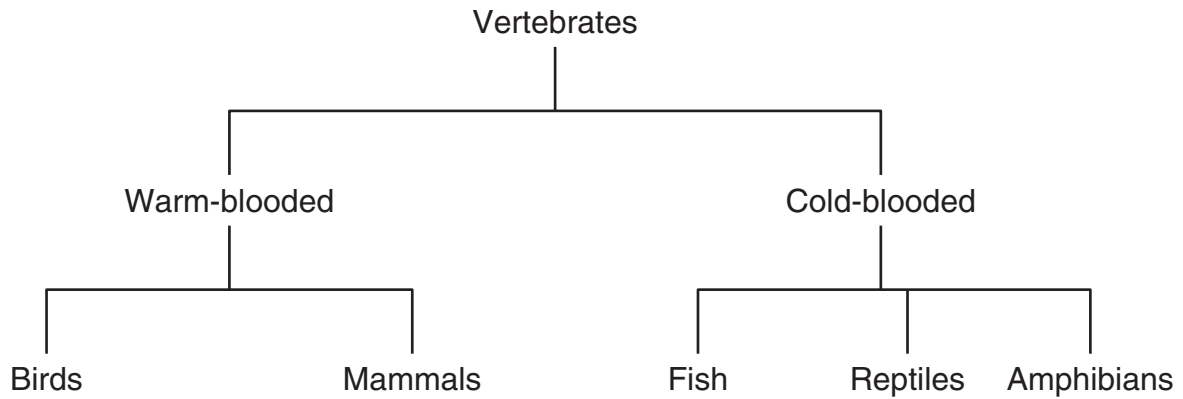


25 closed containers
with moist bread



Scale
1 cm = 10 cm

- 2 The diagram shows the distances different coins traveled when rolled on a smooth surface. How much farther did Coin D travel than Coin A?
- A 30 centimeters
 - B 40 centimeters
 - C 50 centimeters
 - D 80 centimeters



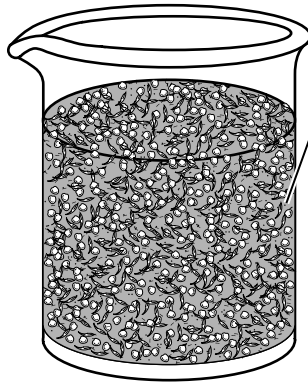
3 Which word could be used to describe a reptile?

- A Vertebrate
- B Warm-blooded
- C Mammal
- D Amphibian

4 An experiment to determine the effects of cold temperatures on seed germination produced some very unexpected results. If the experimenters want to see whether the results are accurate, they should —

- A plan a new experiment
- B change the hypothesis
- C repeat the experiment
- D use warm temperatures

Sand, small pebbles,
iron filings, and
sawdust

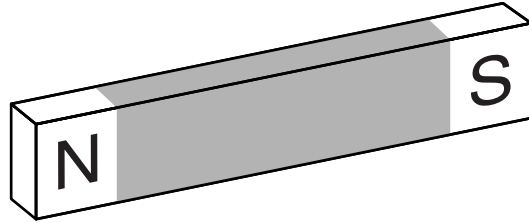


5 Which tool can be used to remove iron filings from the mixture?

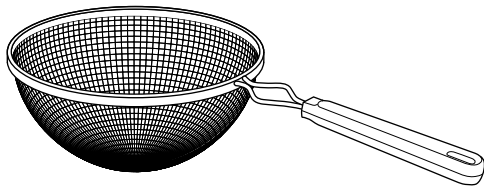
A



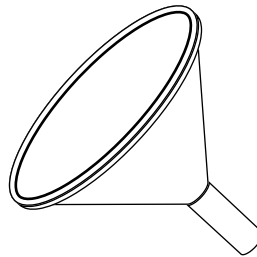
C



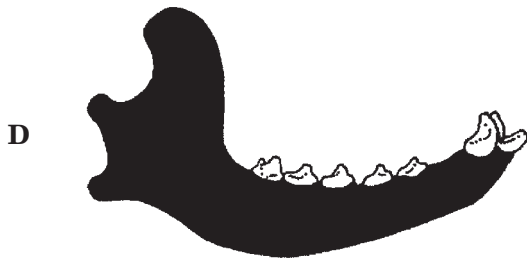
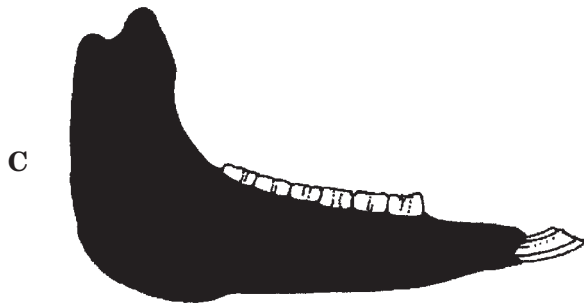
B



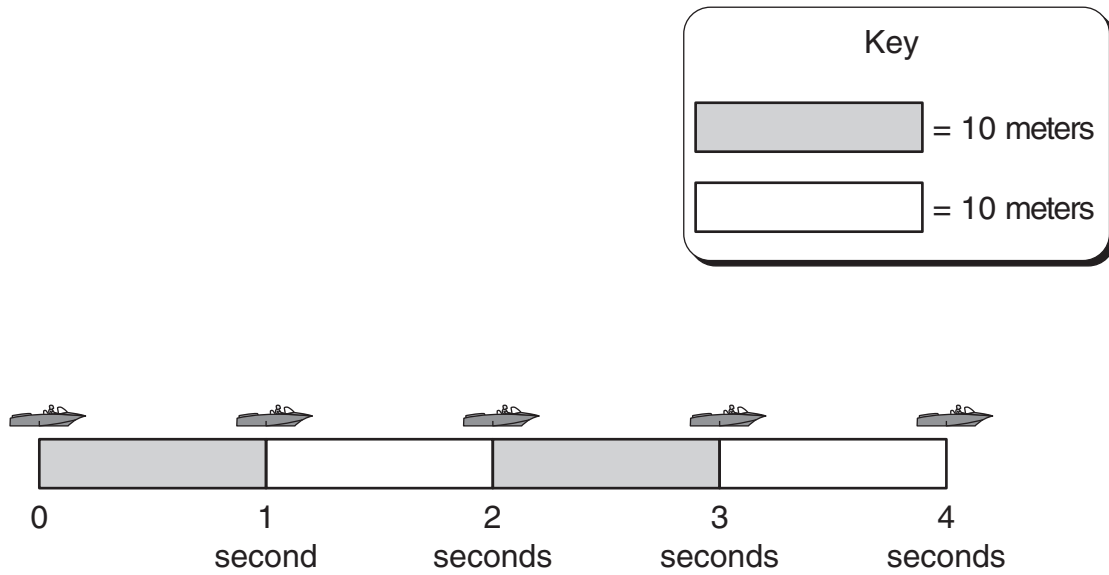
D



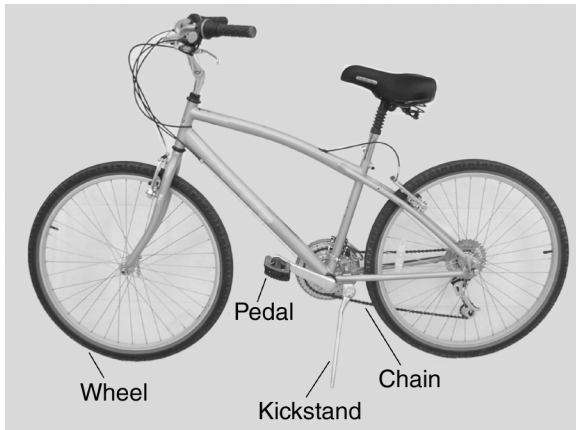
- 1 Horses are herbivores. Their teeth crush and grind plants. Which picture best represents the lower teeth of a horse?



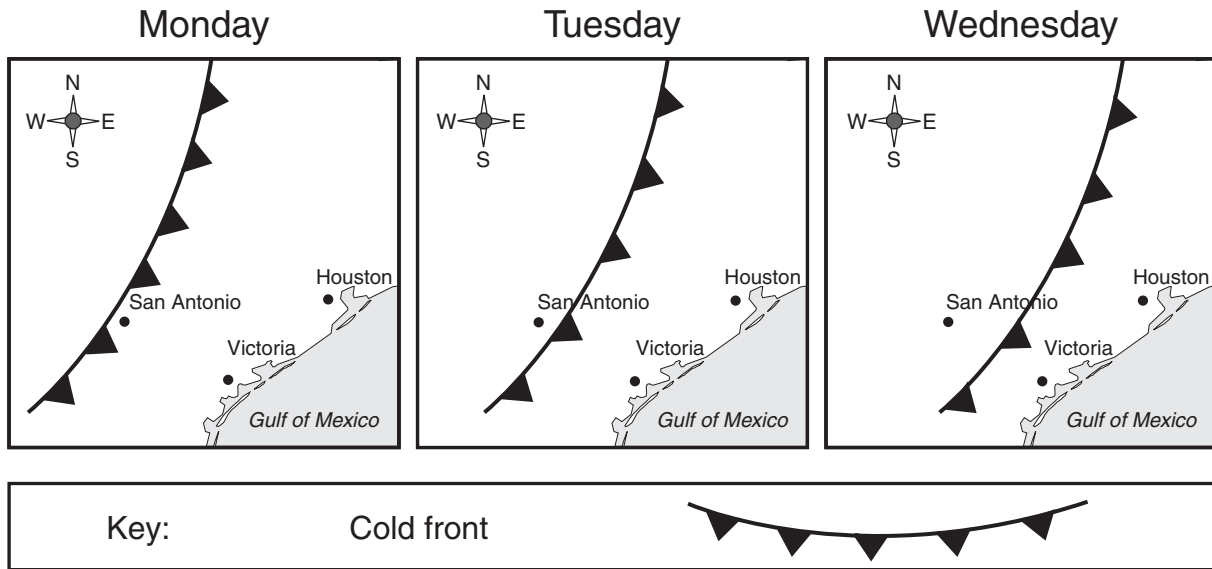
- 2 Which of the following is the best example of competition between birds?
- A A blue jay eats an insect and is then eaten by a hawk.
 - B A blue jay ignores some insects and finds and eats other insects.
 - C A blue jay eats an insect on the ground, and a sparrow eats grass seeds.
 - D A blue jay steals and eats an insect captured by a robin.
- 3 One way that plant and animal life cycles are alike is that both plants and animals —
- A produce offspring that are similar to the parents
 - B stop growing after the first 12 years of life
 - C have young that must be raised
 - D grow at the same rate
- 4 Which of these actions is a learned behavior of a pet dog?
- A Shaking water off wet fur after a bath
 - B Running to the door after it hears the doorbell
 - C Blinking rapidly in smoky air
 - D Drooling when it smells food



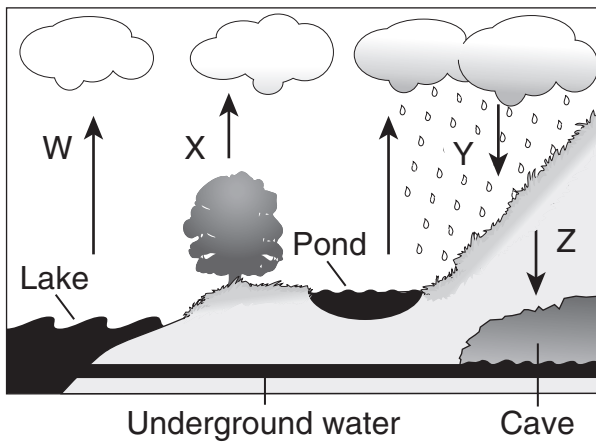
- 1 The diagram shows the motion of a boat over a period of time. How far, in meters, did the boat travel in the first 3 seconds of motion? Record and bubble in your answer to the nearest whole number on the answer document.



- 2 It would be most difficult to coast downhill on this bicycle if it were missing —
- A the chain
 - B a pedal
 - C the kickstand
 - D a wheel
- 3 A student mixes three spoonfuls of sand with one cup of warm water in an open container. The student puts the container of sand and water near a window for four days. How many spoonfuls of sand will be in the container when all of the water has evaporated?
- A 1
 - B 2
 - C 3
 - D 4
- 4 Which of these examples would best model the behavior of light when light reaches the surface of a mirror?
- A A soap bubble lands on the surface of a wall and bursts.
 - B A piece of clay is thrown at a wall and sticks to the surface.
 - C A moth flies toward a wall and lands on its surface.
 - D A ball is thrown at a wall and bounces away from the surface.

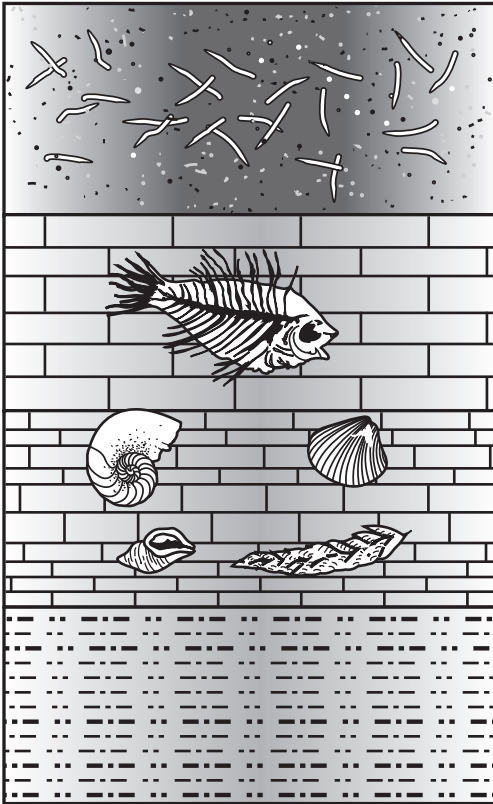


- 1 The weather map shows the passage of a cold front. According to the information on the maps, the cold front seems to be moving —
- A from areas of higher temperatures
 - B from the west to the east
 - C away from the Gulf of Mexico
 - D toward the Rocky Mountains



2 The diagram shows part of the water cycle. Which part of the diagram shows precipitation?

- A W
- B X
- C Y
- D Z



- 3 This diagram shows layers of soil and rock from below a forest floor. Which of these conclusions is best supported by the information found in this diagram?
- A A body of water once covered the area.
 - B The forest was made up of oak trees.
 - C Fish were the first animals in the area.
 - D The area was planted with trees one year ago.

- 4 Which is a possible condition for an area of the moon that receives no light?
- A Fog
 - B Strong winds
 - C Thunderstorms
 - D Cold temperatures

Use the information below and your knowledge of science to help you answer questions 1–3.

Falling Objects

Students were doing an investigation at a stream. They saw that the larger a rock was, the bigger the splash it made. The students wondered if this was because larger objects fall faster.

The next day the students decided to do an investigation in the school yard using a marble, an orange, and a basketball. They asked their teacher to drop the objects from a tall ladder while they wrote down the time it took for each object to reach the ground. The table below shows the data the students collected.

Object	Time to Fall to Ground (seconds)			
	Trial 1	Trial 2	Trial 3	Average
Marble	1.2	1.2	1.2	1.2
Orange	1.1	1.2	1.3	1.2
Basketball	1.3	1.2	1.1	1.2

- 1 The students noticed that the orange split open after being dropped three times. How does a ripe fruit falling from an orange tree's branch benefit this species?
- A It helps spread the seeds.
 - B It gives color to the environment.
 - C It keeps some animals away.
 - D It carries away some water.
- 2 If the teacher dropped the same objects from a taller ladder, which of the following would happen?
- A The objects would gain mass.
 - B The objects would take longer to hit the ground.
 - C The objects would lose mass.
 - D The objects would take less time to hit the ground.
- 3 Rocks in the stream that the students were studying were smoother than rocks found in a nearby stream. The smoother rocks were most likely found in a stream where, over a long period of time, the water —
- A was deeper
 - B appeared cloudy
 - C was cold
 - D moved faster

Item Number	Student Expectation	Correct Answer
OBJECTIVE 1		
1	5.2 (A)	D
2	5.2 (B)	C*
3	5.2 (C)	A
4	5.3 (A)	C
5	5.4 (A)	C
OBJECTIVE 2		
1	2.9 (A)	C
2	3.8 (B)	D
3	5.6 (C)	A
4	5.10 (B)	B
OBJECTIVE 3		
1	3.6 (A)	30
2	5.5 (B)	D
3	5.7 (B)	C
4	5.8 (B)	D
OBJECTIVE 4		
1	4.6 (A)	B
2	5.5 (A)	C
3	5.11 (B)	A
4	5.12 (C)	D
CLUSTER		
1 (Objective 2)	5.9 (C)	A
2 (Objective 3)	3.6 (A)	B
3 (Objective 4)	5.11 (A)	D

* When printing a ruler item, make sure that the Print Menu is set to print the page at 100% to ensure that the art reflects the intended measurement.