

Test-Taking Tip

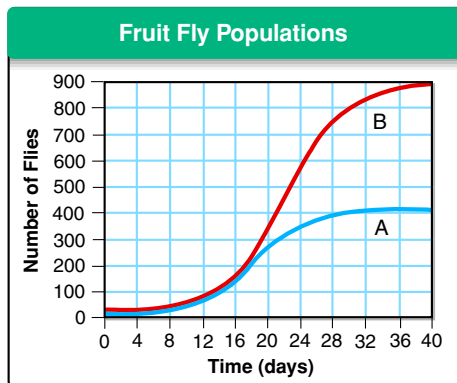
Before taking a standardized test, it helps to become familiar with the format of the test, including the different question types. One helpful method is to complete practice tests, such as this one.

Directions: Choose the letter that best answers the question or completes the statement.

- Unlike sexual reproduction, asexual reproduction involves
 - spontaneous generation.
 - two cells.
 - two parents.
 - one parent.
 - one nonliving thing.
- One meter is equal to
 - 1000 millimeters.
 - 1 millimeter.
 - 10 kilometers.
 - 1 milliliter.
 - 1000 kilograms.

Questions 3–4

A researcher investigated two groups of fruit flies. Population A was kept in a 0.5-L container. Population B was kept in a 1-L container.



- The manipulated variable was the
 - number of flies.
 - number of groups studied.
 - time in days.
 - difference in time per group.
 - size of the containers.

- Which of the following is a logical inference based on the contents of the graph?
 - The flies in Group B were healthier than those in Group A.
 - A fly population with more available space will grow larger than a population with less space.
 - If Group B were observed for 40 more days, the size of the population would double.
 - In 40 more days, the sizes of both populations would decrease at the same rate.
 - The pattern shown in this graph is true only for fruit flies.

Questions 5–6

Once a month, a pet owner recorded the mass of her puppy in a table. When the puppy was 3 months old, she started to feed it a “special puppy food” she saw advertised on TV.

Change in a Puppy's Mass Over Time		
Age (months)	Mass at Start of Month (kg)	Change in Mass per Month (kg)
2	5	—
3	8	+3
4	13	+5

- According to the table, which statement is true?
 - The puppy's mass increased at the same rate for each month shown.
 - The puppy's increase in mass during month 4 was greater than 4 kg.
 - The puppy added more mass during month 2 than during month 3.
 - The puppy added more mass during month 3 than during month 2.
 - No accurate statements are possible unless you know the data from the first month.
- All of the following statements about the pet owner's study are true EXCEPT
 - The owner made quantitative observations.
 - The owner used the metric system.
 - The owner recorded data.
 - The owner could graph the data.
 - The owner conducted a controlled experiment.

Standardized Test Prep

- D
- A
- E
- B
- B
- E

Writing in Science

Students' explanations will vary. All students, though, should define or describe how to make scientific observations and make inferences from those observations. A typical use of scientific thinking in determining which food a cat prefers will involve designing an experiment and drawing a conclusion. These steps should be included in this process: asking a question, forming a hypothesis, setting up a controlled experiment, recording and analyzing results, and drawing a conclusion. In the design of an experiment, students should identify a manipulated variable, a responding variable, and controlled variables.

Performance-Based Assessment

Student answers should include a testable hypothesis and a description of a controlled experiment in which the variable to be tested and the variables to be controlled are listed.

Go Online
PHSchool.com

Your students can independently test their knowledge of the chapter and print out their test results for your files.