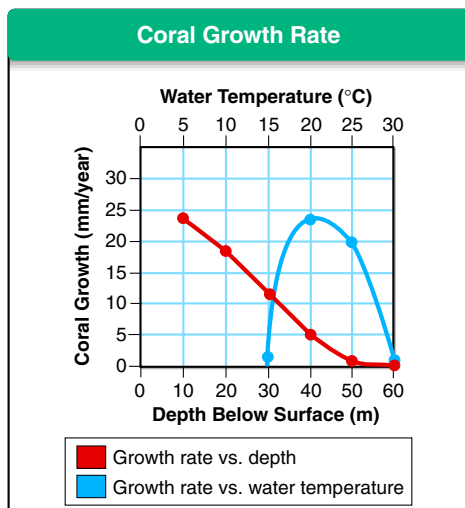


Test-Taking Tip

When evaluating multiple-choice answers, read all the answer choices, even if the first choice seems to be the correct one. By doing so, you can make sure that the answer you choose is the best one.

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

The graph below shows the growth rate of a hypothetical coral species under different conditions. Use this information to answer questions 1 and 2.



- This coral grows best at depths of ? and a temperature of ? .
 (A) 5–10 m; 20°C
 (B) less than 10 m; 15°C
 (C) less than 10 m; 28°C
 (D) more than 10 m; 21°C
 (E) all depths, if water temperature is correct
- Which of the following statements best explains the trend shown in the graph?
 (A) The growth rate of the coral increases as the depth below the water surface increases.
 (B) At temperatures of 15°C or above, the growth rate depends only on temperature.
 (C) Corals cannot grow below 30 m.
 (D) This coral grows best from 18° to 23°C.
 (E) Water temperatures depend on the depth of the coral below the surface.

- Which of the following is a type of tissue that arises in most animals during development?
 I. Endoderm
 II. Mesoderm
 III. Ectoderm
 (A) I only
 (B) II only
 (C) I and II only
 (D) II and III only
 (E) I, II, and III
- An adult sponge has all of the characteristics below EXCEPT
 I. Body symmetry
 II. Ability to move from place to place
 III. Cells without cell walls
 (A) I only
 (B) II only
 (C) I and II only
 (D) II and III only
 (E) I, II, and III
- Which of the following is NOT a characteristic of animals?
 (A) the ability to make their own food
 (B) the ability to move
 (C) eukaryotic cells
 (D) cells that lack cell walls
 (E) multicellularity
- Most animals reproduce sexually by producing
 (A) buds.
 (B) spores.
 (C) clones.
 (D) haploid gametes.
 (E) diploid gametes.
- Which of the following is a body type of a cnidarian?
 I. gemmule
 II. polyp
 III. medusa
 (A) I only
 (B) II only
 (C) III only
 (D) II and III only
 (E) I, II, and III

Questions 8–11 Each of the lettered choices below refers to the following numbered statements. Select the best lettered choice. A choice may be used once, more than once, or not at all.

- | | |
|-----------------|------------------|
| (A) Osculum | (D) Deuterostome |
| (B) Protostome | (E) Blastula |
| (C) Archaeocyte | |
- A hollow ball of cells, formed after the zygote undergoes division
 - An animal whose mouth is formed from the blastopore
 - A large hole through which water leaves a sponge
 - A specialized cell that moves around within the wall of a sponge

Standardized Test Prep

- | | | |
|------|------|-------|
| 1. A | 5. A | 9. B |
| 2. D | 6. D | 10. A |
| 3. E | 7. D | 11. C |
| 4. C | 8. E | |

Writing in Science

Students should identify the symbiosis as mutualism and explain that the sponge obtains food and oxygen from the photosynthetic organisms, whereas the photosynthetic organisms obtain a protected area in which to live. The spicules of the sponge direct the incoming sunlight to the photosynthetic organisms. When students have completed a draft, they might work in pairs to revise and edit their paragraphs.

Performance-Based Assessment

Labeled parts of a model of a sponge should include the osculum, central cavity, choanocytes, and flagella. Labeled parts of a model of a cnidarian should include tentacles, mouth/anus, and gastrovascular cavity. The sponge obtains food by filter feeding, and may respond by producing toxins that protect it from potential predators. To feed, a cnidarian paralyzes its prey with its stinging cells and uses its tentacles to push the prey into its gastrovascular cavity. A cnidarian has a nerve net and specialized sensory cells to detect environmental stimuli. A cnidarian's responses include movement and capturing prey.

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