

Test Your Estuarine Knowledge

Estuaries.gov Quiz Questions

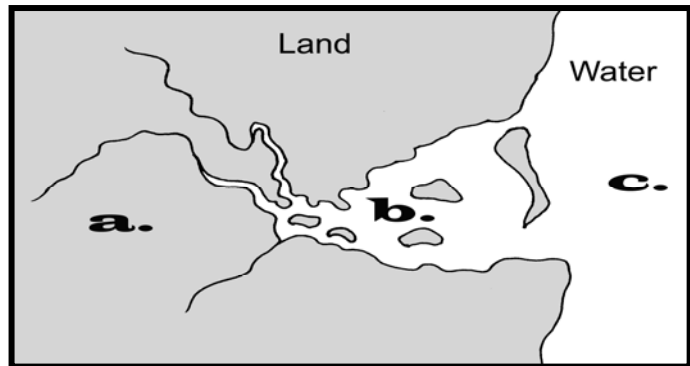
Note to the educator: These questions are intended to stimulate classroom discussion/debate and as a resource for assessment following lessons and activities. We invite all educators to suggest additional questions and/or provide us with comments about the utility of this quiz. Please e-mail us at estuariesweb@noaa.gov.

1. What is an estuary?

- a) The land area that drains water into a lake, river, or pond.
- b) The area where a river meets the ocean, where fresh and salt water mix.
- c) The large body of salt water that covers most of the earth's surface.
- d) The underground system that provides drinking water to an area.

2. Which letter marks the estuary on the diagram?

- a) _____
- b) _____
- c) _____



3. Estuaries have also been called:

- a) Bays
- b) Lagoons
- c) Sounds
- d) Sloughs
- e) All of the Above

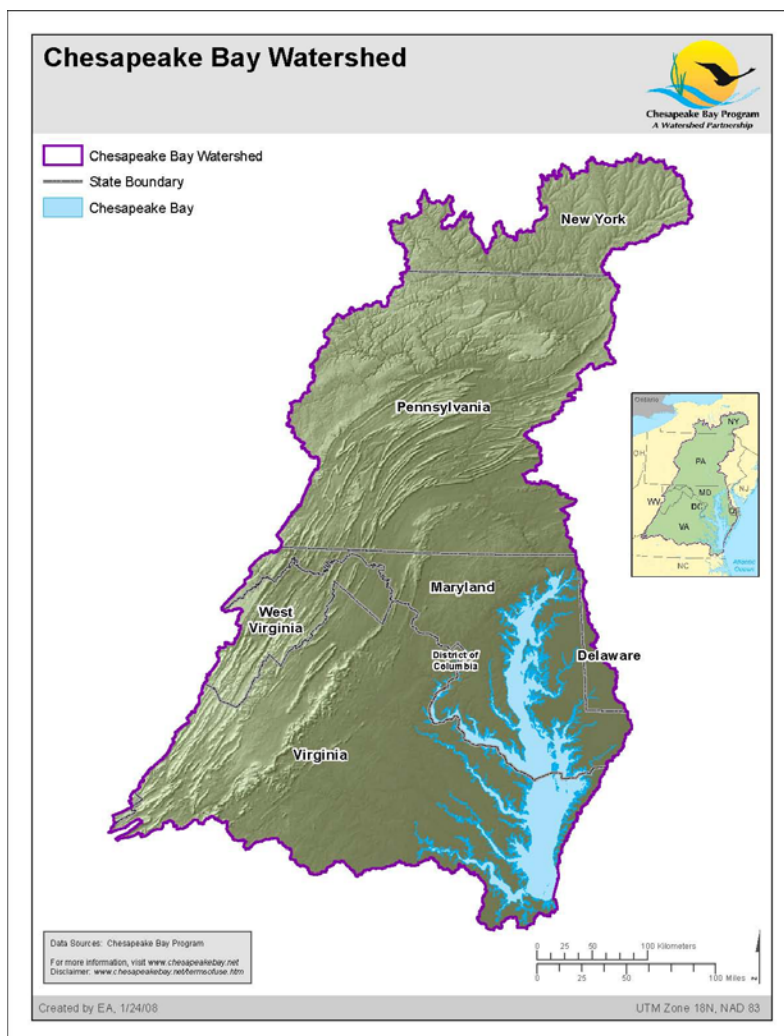


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4. The Chesapeake Bay in Maryland is an example of what type of estuary?

- a) Coastal plain estuary
- b) Tectonic estuary
- c) Bar-built estuary
- d) Fjord



5. Why are estuaries important to our environment?

- a) They provide homes for many species of wildlife.
- b) They are important nursery areas for a variety of marine life.
- c) They help to filter pollutants from the water.
- d) All of the above

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6. The high productivity of estuaries has been attributed to the presence of several primary production units. Which of the following would NOT be considered a primary production unit in an estuary ecosystem?

- a) Phytoplankton suspended within the sunlight zone of the water column.
- b) Benthic algae, microscopic plants living on the sediment surface wherever sunlight reaches the bottom.
- c) Macroflora, such as marsh grasses which are the foundation of many food webs and provide nursery grounds for most coastal shellfish and finfish.
- d) Juvenile zooplankton brought to the estuary by tides after hatching offshore.



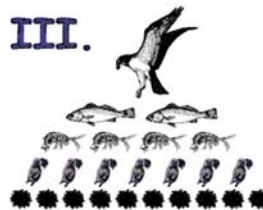
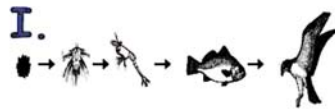
7. The blue crab is one of the fastest swimming crabs in the world. Their incredible swimming speed can best be attributed to the crab's...

- a) large claws.
- b) jointed legs.
- c) body shape.
- d) "paddle-like" rear feet



8. Which of the illustrations best represent energy flow in an estuary?

- I. _____
- II. _____
- III. _____
- IV. _____

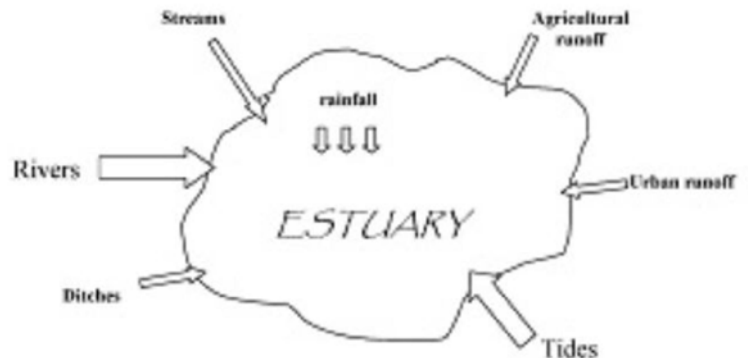


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9. Water is brought to an estuary from a variety of sources. Which of the following is responsible for increasing the salinity in the estuary?

- a) Rivers
- b) Streams
- c) Urban runoff
- d) Tides



10. Many shore birds feed on the mud flats of estuaries. When would be the best time for the birds to catch stranded fish and invertebrates?

- a) During tidal ebb.
- b) During tidal flow.

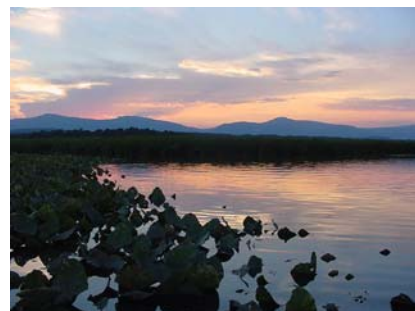


11. Water in most estuaries is *brackish* because of the mixing of fresh water from rivers and saltwater from incoming tides. A drought in the bay watershed would most likely cause the water in the bay to ...

- a) increase in salinity.
- b) decrease in salinity.
- c) stay the same.
- d) rise.

12. If we totally removed plankton from the estuary, the estuarine foodweb would NOT be affected:

- a) True
- b) False



Acknowledgements: Some of the questions in this quiz were based on a series of Assessment and Discussion documents prepared by Brent Stafford for the Galveston Bay Estuary Program. These were adapted by Atziri Ibanez, National Education Coordinator from NOAA's National Estuarine Research Reserve.

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