

Student Quiz

Understanding Water Clarity

1. Which of the following statements is false?
 - A) Secchi depth provides an estimate of water clarity.
 - B) Secchi depth is usually recorded in centimeters (cm).
 - C) Water with a Secchi depth of 125 cm is clearer than water with a Secchi depth of 175 cm.
 - D) None of the above.
2. How can reduced water clarity negatively affect aquatic life?
 - A) By limiting the amount of light available for photosynthesis
 - B) By leading to lower dissolved oxygen concentrations
 - C) By suffocating fish and oysters
 - D) All the above
3. Water clarity can be reduced by which of the following?
 - A) Heavy rainfall
 - B) High winds
 - C) Extreme tides
 - D) All the above
4. Algal blooms reduce water clarity by absorbing light at the water's surface.
 - A) True
 - B) False
5. Which of the following human activities contribute to sediment pollution?
 - A) Boating
 - B) Dredging
 - C) Development
 - D) All the above
6. How can nutrient pollution reduce water clarity?
 - A) By increasing suspended sediment concentrations
 - B) By limiting the amount of light available for photosynthesis
 - C) By increasing the growth of phytoplankton and the occurrence of algal blooms
 - D) All the above

Student Quiz

Understanding Water Temperature

1. Which of the following statements is false?
 - A) Scientists measure water temperature in degrees Celsius ($^{\circ}\text{C}$).
 - B) Water freezes at 32°C .
 - C) Water boils at 100°C .
 - D) None of the above.
2. Water temperature affects which of the following?
 - A) Metabolic rates of aquatic organisms
 - B) Rate of plant photosynthesis
 - C) Timing of reproduction and migration in many species
 - D) All the above
3. Which of the following statements is true?
 - A) Water temperature typically decreases with depth.
 - B) Water temperature typically increases with depth.
4. Which of the following statements is true?
 - A) Water temperatures are highest during the winter and lowest during the summer.
 - B) Water temperatures are highest during the summer and lowest during the winter.
5. Thermal pollution is the artificial warming of natural water bodies. Which of the following is NOT a source of thermal pollution?
 - A) Roads
 - B) Parking lots
 - C) Automobiles
 - D) Power plants

Student Quiz

Understanding pH

1. Which of the following statements is false?
 - A) Liquid with a pH above 7.0 is basic.
 - B) Liquid with a pH below 7.0 is acidic.
 - C) Liquid with a pH of 5.0 is ten times more acidic than a liquid with a pH of 7.0.
 - D) Liquid with a pH of 5.0 is one hundred times more acidic than a liquid with a pH of 7.0.
2. How can changes in pH harm aquatic life?
 - A) By disrupting cellular processes
 - B) By altering other aspects of water quality
 - C) Both A and B
 - D) None of the above
3. Which of the following statements is true?
 - A) Rainfall is naturally acidic and can lower the pH of estuaries.
 - B) Rainfall is naturally acidic and can raise the pH of estuaries.
4. Water turbulence can lower the pH of estuaries.
 - A) True
 - B) False
5. pH is typically higher (more basic) in the upper reaches of an estuary than in the lower reaches.
 - A) True
 - B) False
6. Acid rain can significantly lower the pH of estuaries and other water bodies. Which of the following is primarily responsible for causing acid rain?
 - A) Burning of coal
 - B) Burning of oil
 - C) Burning of gasoline
 - D) All the above
7. The decomposition of organic waste can lower the pH of estuaries and other water bodies.
 - A) True
 - B) False

Student Quiz

Understanding Dissolved Oxygen

1. Which of the following statements is false?
 - A) Dissolved oxygen is typically measured as a concentration of milligrams of DO per liter of water (mg/L).
 - B) Dissolved oxygen is typically measured as a concentration of parts DO per million parts water (ppm).
 - C) $5 \text{ mg/L} = 10 \text{ ppm}$
 - D) $5 \text{ mg/L} = 5 \text{ ppm}$
2. When DO concentrations are too low, which of the following may occur?
 - A) Organisms become stressed
 - B) Organisms cannot grow, feed, or reproduce properly
 - C) Estuarine communities become unhealthy and less biologically diverse
 - D) All the above
3. Which of the following properties of water can result in a low DO concentration?
 - A) Low temperature
 - B) Low salinity concentration
 - C) High suspended sediment concentration
 - D) All of the above
4. Which of the following statements is true?
 - A) DO concentrations are higher during the day than at night
 - B) DO concentrations are lower during the day than at night
5. Which of the following can result in a low DO concentration?
 - A) Fertilization of soils
 - B) Impervious surfaces
 - C) Development
 - D) All the above

Student Quiz

Understanding Salinity

1. Which of the following statements is false?
 - A) Salinity is typically measured as a concentration of grams of salt per kilogram of water (g/kg).
 - B) Salinity is typically measured a concentration of parts salt per thousand parts water (ppt).
 - C) $20 \text{ g/kg} = 20.0 \text{ ppt}$
 - D) $20 \text{ g/kg} = 40.0 \text{ ppt}$
2. Which of the following statements is true?
 - A) Salinity influences where aquatic plants and animals can live.
 - B) Salinity affects other aspects of water quality.
 - C) Neither A nor B
 - D) Both A and B
3. Which of the following statements is true?
 - A) Estuarine salinity increases when tides rise.
 - B) Estuarine salinity decreases when tides rise.
4. Estuaries with weak tidal currents are often highly stratified. In highly stratified estuaries, which of the following statements is true?
 - A) Salinity concentration decreases with depth.
 - B) Salinity concentration increases with depth.
5. Which of the following statements is true?
 - A) Heavy rainfall can temporarily increase estuarine salinity at the surface.
 - B) Heavy rainfall can temporarily decrease estuarine salinity at the surface.
6. Which of the following human activities can influence estuarine salinity?
 - A) Development of impervious surfaces
 - B) Release of wastewater
 - C) Both A and B
 - D) Neither A nor B