

# Manatee County Pre/Post-Test Teacher Answer Key

## Nature Walk

1. The movement of water from the Earth to the sea, to the air and back to the Earth again is called the \_\_\_\_\_.

- A **Water cycle**
- B Watershed
- C Runoff
- D Weather

*SC.5.E.7.1 - Create a model to explain the parts of the water cycle. Water can be a gas, a liquid, or a solid and can go back and forth from one state to another.*

2. Living close to the ocean affects our local weather.

- A **True**
- B False

*SC.5.E.7.5 - Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.*

3. A student is walking along the coast and notices some mangrove trees. The trees have very waxy leaves and roots that stick up out of the mud and water. The student starts to think about why the trees might have these adaptations. Which of the following would be the most correct?

- A The mangrove trees are home to many birds
- B **The mangrove trees live in a low-oxygen, high-salinity environment**
- C The mangrove trees are a native species
- D The mangrove trees are used to make wax paper

*SC.5.L.17.1 - Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.*

4. Wildfires in Florida help to eliminate invasive plant species and help native plant species because \_\_\_\_\_.

- A **Native species are better adapted to survive Florida wildfires**
- B Fires kill everything and only native species are allowed to grow back
- C Fires increase nutrient levels in the soil which only helps native species
- D After invasive species die once, they can't come back

*SC.5.L.17.1 - Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.*

5. Air temperature, wind speed, wind direction, and precipitation are all factors you could measure to describe the \_\_\_\_\_ in an area.

- A Biodiversity
- B Water Quality
- C **Weather**
- D Nature

*SC.5.E.7.3 - Recognize how air temperature, barometric pressure, humidity, wind speed and direction, and precipitation determine the weather in a particular place and time.*

6. When the energy of a wave crashes into the shore, it wears away the shoreline and can remove sediments like sand. This process is called \_\_\_\_\_.

- A Pollution
- B Corrosion
- C Runoff
- D **Erosion**

*SC.5.P.10.2 - Investigate and explain that energy has the ability to cause motion or create change.*

7. It is possible that a water molecule you find in the ocean was once in a freshwater spring.

- True
- False

*SC.5.E.7.2 - Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth's water reservoirs via evaporation and precipitation processes.*

8. Why are wetland habitats important? (Hint: mangroves and seagrass beds are wetland habitats)

- A They provide a nursery habitat for over 90% of the commercial fisheries
- B They are critical in water filtration, removing sediment, pollution and nutrients from coastal runoff
- C They anchor sediments, prevent erosion and act as a natural buffer to hurricanes
- D **All of the above**

*SC.5.L.17.1 - Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.*

## Dip Netting

9. A 5th grade student went to the beach in the summer with a net to see what animals she could find in the shallow water. If she went back to the same part of the beach again in the winter, do you think she would find the same animals in her net?

- Yes
- No

*SC.5.L.15.1 - Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.*

10. Scientists use biodiversity as an indication of environmental health and stability.

- True
- False

*SC.5.L.15.1 - Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.*

11. The seagrass we find in the bay is usually brown or green. If you were to net through the seagrass bed, you would find creatures that are colored brown or green or have stripes. If pollution increases in the bay, the seagrass beds will die, leaving only sand. Which of the following creatures could you expect to find in the resulting sand-bottomed habitat?

- A **A flat, gray sand dollar**
- B A fish with green and brown stripes
- C A black fish
- D A thin, green shrimp

*SC.5.L.15.1 - Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.*

## Water Quality/Cleanup

12. Scientists predict that in the next 10 years, the average temperature of the water in Sarasota Bay will increase significantly. If the water in Sarasota Bay increases in temperature, which of the following could **also** increase?

- A Salinity
- B Dissolved Oxygen
- C Biodiversity
- D Environmental Health

*SC.5.P.8.2 - Investigate and identify materials that will dissolve in water and those that will not and identify the conditions that will speed up or slow down the dissolving process.*

13. Within a watershed, pollution on land can be carried to oceans by rivers, streams, and rain. Which of the following is a source of pollution in Florida's estuaries?

- A Stormwater runoff
- B Industry waste
- C Golf course fertilizer
- D All of the above

*SC.5.E.7.1 - Create a model to explain the parts of the water cycle. Water can be a gas, a liquid, or a solid and can go back and forth from one state to another.*

14. How do plants in an estuary help improve the estuary's water quality?

- A Plants do not impact water quality
- B Plants actually hurt water quality because they produce too many nutrients
- C Plants filter pollutants, nutrients, and sediments from the water and produce oxygen
- D Plants decrease the amount of oxygen in the water

*SC.5.L.17.1 - Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.*

15. Scientists believe that 80% of marine debris begins as litter on the mainland. That means 8 out of every 10 pieces of garbage you find in the ocean came from land! What do you think is an example of **evidence** that scientists used to support this claim?

- A They found fishing line on the street
- B They found shoes washed up on an island where nobody lives
- C They found candy wrappers washing into a storm drain near the bay
- D B and C

*SC.5.N.2.1 - Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.*