TEST YOUR KNOWLEDGE ANSWERS
GRADES 6-8

1. _____ is any type of manmade source of chemicals or garbage that starts on the land and ends up in the water.
    a. Terrestrial pollution
    b. Marine pollution
    c. Air pollution
    d. Microplastics pollution

2. What is the difference between point and non-point source pollution?
    a. You can identify exactly where point source pollution comes from, but non-point source can come from multiple places.
    b. Point source pollution comes from the air and non-point source pollution comes from the land.
    c. You can identify exactly where non-point source pollution comes from, but point source can come from multiple places.
    d. Non-point source pollution comes from the air and point source pollution comes from the land.

3. Which of these statements is FALSE about marine debris?
    a. It does not always get collected and recycled by humans.
    b. It will break down into smaller pieces.
    c. Marine debris will always stay in the same place it entered the water.
    d. It will make its way through the food chain if eaten by an animal.

4. True or **False**. Marine debris does not affect beaches or boats.

5. How does bioaccumulation occur with marine debris?
    a. Microorganisms break down marine debris and organic materials.
    b. Animals get stuck in pieces of marine debris and it changes the way their body grows.
    c. The sunlight breaks down the marine debris and it moves into a gyre.
    d. **Small animals eat pieces of marine debris and they build up in the animal's body.**

6. _____ is a tiny piece of plastic less than 5 mm in length
    a. Marine debris
    b. Runoff
    c. Macroplastic
    d. Microplastic

7. Which if these is NOT a source of microplastics?
    a. **Chemicals from plastic going down a kitchen sink**
    b. Sunlight causing photodegradation of plastic on a beach
    c. Microbeads from facewash washing down a bathroom sink
    d. Mechanical degradation of fibers from clothing moving around in a washing machine

8. What happens to animals when they are in the water with microplastics for a while?
    a. Animals avoid the microplastics and only eat their food.
    b. **The animals at the top of the food chain have the most plastic in their stomach, due to biomagnification.**
    c. The microplastics give animals the same nutrients as their food.
    d. The animal has a big enough stomach to consume both food and microplastics.

9. _____ occurs when the land cannot absorb any more water and the extra water ends up in another body of water.
    a. Marine debris
    b. Microplastics
    c. Renewable energy
    d. **Runoff**

10. Why are salt marshes important along coastlines, like Long Island Sound, in preventing runoff?
    a. Salt marshes are an impermeable surface and they act like a wall to block the extra water from going into Long Island Sound.
    b. **Salt marshes are a permeable surface and they absorb the extra water from runoff so it will not go into Long Island Sound.**
    c. Salt marshes hold runoff water for birds and animals to drink so it will not go into Long Island Sound.
    d. All of the above.

11. What can happen to a water treatment plant if it rains too much?
    a. Nothing will happen; the water treatment plant can always handle extra water.
    b. The water treatment plant turns off so it will not overflow into another body of water.
    c. **The large containers that hold the water will overflow into another body of water.**
    d. None of the above.

12. Which of these statements is TRUE about fertilizer getting into a body of water like Long Island Sound?
    a. **Fertilizer causes blooms of algae that can eventually lead to fish kills due to low oxygen.**
    b. Fertilizer is the reason that Long Island Sound looks green in color.
    c. Fertilizer is food for animals that need it to grow and thrive in Long Island Sound.
    d. Fertilizer makes the water cleaner in Long Island Sound.

13. Renewable energy _____.
    a. Involves sources of energy that can only be used once, like coal.
    b. **Uses natural sources of energy that are found all over the earth.**
    c. Contributes pollution to the air and water.
    d. None of the above.

14. Which of these statements is TRUE about wind energy?
    a. Wind energy is a non-renewable source of energy.
    b. Wind energy uses heated pipes underground to create electricity.
    c. **Wind energy uses turbines and a generator to create electricity.**
    d. Wind energy can only be used in coastal areas.

15. _____panels absorb energy from the _____ and use it to make electricity for a house or building.
    a. Hydropower; Sun
    b. Solar; Earth
    c. Hydropower; Water
    d. **Solar; Sun**

16. Why are tides a great source of energy for a coastal area, like Long Island Sound?
    a. Tides are very strong and rush over a dam to create electricity with a turbine.
    b. **Unlike wind and solar energy, tidal movement is consistent and happens every day because tides are controlled by the moon.**
    c. The energy generated by the large wave action of the tides is stored through a tidal panel.
    d. Tidal water is stored in pipes that get warmed by the earth to warm buildings.

17. Which of these statements is FALSE about geothermal energy
    a. **The heat in the ground varies greatly every day throughout the year.**
    b. Underground pipes with water are heated and cooled by the ground.
    c. The heated and cooled water is pumped up to a heat pump in a house or business.
    d. Geothermal energy can get used almost anywhere in the United States.

18. **True** or False. Humans use non-renewable energy because it is often easier to store and more cost effective than renewable energy.

19. _____ is when humans work to improve damage to the environment
    a. Water treatment
    b. Remediation
    c. Runoff
    d. Renewable Energy

20. Which of these examples is a way to prevent impermeable surfaces from causing extra water from moving through the environment
    a. Create more concrete paths for the water to travel away from a river or lake.
    b. Install solar panels so the extra water can evaporate off the land.
    c. Add more storm drains on the sides of the road to collect the extra water.
    d. Build a rain garden on the side of a parking lot or road to take up extra water.

21. How does kelp help with runoff?
    a. It filters microplastics from runoff.
    b. It blocks sunlight from the seafloor.
    c. It is a food source for animals**.**
    d. It takes up extra nitrogen from the water.

22. Which of the following is true about a breakwater or jetty?
    a. The cause the sediment to move to areas that are eroded so they can fill in and protect the ground.
    b. They absorb wave energy, preventing erosion around coastal houses.
    c. They create trenches that divert the flow of extra rainwater.
    d. All of the above.

23. Why is it important to compost?
    a. Composting prevents materials from ending up in a landfill, which creates a greenhouse gas called methane.
    b. Composting allows nutrients to be returned to the soil.
    c. Composting is a method of recycling.
    d. All of the above.