**BioRecycling/BioEnergy Knowledge Check Answer Key**

1. **True/False: Waste is waste and cannot be reused or recycled.**
   1. **True**
   2. **False**
2. **Which of the following CANNOT be used to produce electricity?**
   1. **Sunlight c. Wind**
   2. **Natural gas d. Glass**
3. **True/False: Composting and anaerobic digestion are good ways of recycling food waste.**
   1. **True**
   2. **False**
4. **For growth, plants and algae need all of the following, EXCEPT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
   1. **Nutrients**
   2. **Water**
   3. **Sunlight**
   4. **Methane**
5. **Of the following, which photosynthetic organism grows the fastest?**
   1. **Algae c. Oak trees**
   2. **Squirrel s d. Humans**
6. **True/False: Biogas is a renewable energy source.**
   1. **True**
   2. **False**
7. **What does anaerobic digestion produce?**
   1. **Oxygen c. Light**
   2. **Biogas d. Helium**
8. **True/False: Microalgae and plants can be turned into biofuel.**
   1. **True**
   2. **False**
9. **Air is composed of several constituents. Which air component do plants need most?**
   1. **Oxygen c. Carbon dioxide**
   2. **Nitrogen d. Argon**
10. **Plants help to control the Earth’s temperature by removing \_\_\_\_\_\_\_\_ from the atmosphere.**
    1. **Oxygen c. Carbon dioxide**
    2. **Nitrogen d. Helium**
11. **Anaerobic means without \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
    1. **Oxygen c. Methane**
    2. **Nitrogen d. Carbon dioxide**
12. **Which of the following is not a decomposer?** 
    1. **Fungi c. Earth worms**
    2. **Bacteria d. Plants**
13. **True/False: Composting requires oxygen and bacteria to break down the food waste.**
    1. **True**
    2. **False**
14. **If you provide enough oxygen, water and food to a compost pile, what happens?** 
    1. **The compost pile heats up**
    2. **The compost pile smells**
    3. **The compost pile becomes cooler in the center**
    4. **Biogas is produced**
15. **Compost can be used for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
    1. **Construction material c. Producing paper**
    2. **Growing plants d. Filling empty space in landfills**
16. **Sequestering carbon dioxide means to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
    1. **Convert it to heat c. Dissolve it in water**
    2. **To steal it d. Lock it up, or store it in organic materials**
17. **What device do engineers use to grow algae?** 
    1. **Anaerobic digester c. Nuclear reactor**
    2. **Photobioreactor d. Business incubator**
18. **What device do engineers use to produce biogas? ]**
    1. **Anaerobic digester c. Nuclear reactor**
    2. **Photobioreactor d. Business incubator**
19. **Biogas is a combination of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
    1. **Oxygen and methane c. Methane and carbon dioxide**
    2. **Oxygen and carbon dioxide d. Carbon dioxide and nitrogen**
20. **A bioreactor is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
    1. **a group of radioactive organisms**
    2. **a device that does some type of work using microorganisms**
    3. **the place where most superheroes come from**
    4. **an Oscar award-winning bacteria**