

Tajiguas Landfill Tour Answer Sheet

1) b. **Waste**

Can your students think of other names for “garbage?” Talk about different meanings for garbage, and whether recyclables should be considered garbage or not.

1) a. **As long as people have been on earth**

Garbage has been around a long time. Before human’s garbage did not exist, nature had its own way of taking care of our natural resources. Today we must think about what we throw away more and more as populations grow, landfills become full and more natural resources are used to meet the consumer demands of a larger population.

3) b. **5.2 pounds**

The average amount of garbage produced by one person locally in one day is 5.2 pounds, 30% is from packaging alone! How much garbage does the entire class produce in one day?

4) c. **The landfill**

Modern landfills are lined with materials to keep contaminants inside the landfill and from leaking out. They also have landfill gas collection systems to capture most of the methane gas that organic materials generate. At county run Tajiguas Landfill, this gas is converted to electricity powering 2,500 to 3,000 homes each day!

5) d. **All of the above**

Glass, aluminum, plastic, paper, cardboard, and steel are common recyclable items. Discuss with your students what they think is recyclable and whether or not they recycle at home?

6) d. **200-500 years**

Aluminum cans will breakdown in a landfill in 200-500 years. The energy it takes to produce one can could power a TV for 4 hours. Americans throw away enough aluminum cans to rebuild an entire commercial air fleet every three months. If you throw a recyclable item in the trash it will not be recycled and we will have to extract more natural resources from the earth to make new products.

7) a. **Natural Resources**

Natural resources are materials from the earth that we use to make the products we use. Some resources are renewable (we can grow more in a lifetime) like trees, while others are non-renewable (there is a finite amount on earth and will take thousands of years to grow) like oil. Discuss how paper comes from trees and recycling can lead to cutting down fewer trees; and how plastic is nonrenewable. Therefore recycling is a way to conserve natural resources.

8) b. **Oil**

Plastics are made from oil, which comes from the earth, and takes millions of years to form. The world's supply of oil is finite and we are extracting it much faster than it is produced. Oil forms very slowly from decomposing organic matter.

9) c. **Food and Yard Waste**

Composting is nature's way of recycling. Any organic matter, meaning anything that was once alive (i.e. paper products, yard waste, food scraps) will be decomposed by fungi, bacteria, and invertebrates (such as worms). Oxygen and water are also necessary for decomposition to occur.

Determine whether these statements are true or false:

- 10) T Discuss some items that can be recycled, and examples of new products that are made from recycled materials.
- 11) F Recycling is ONE of the ways we can reduce what goes into landfills. Discuss with your students the importance of reducing, reusing, recycling, or composting. Ask your students what steps they can take to help reduce the amount of waste in our landfills.
- 12) T Once you throw your trash away it is picked up and transferred to a landfill.
- 13) T Methane is a greenhouse gas that is 25 more times powerful than carbon dioxide in regard to global climate change. Near the entrance to the landfill is a plant which converts methane gas into electricity. Gas wells in the landfill collect methane that is piped into this facility. The facility produces enough electricity to power 3,000 homes!
- 14) F Batteries should NOT be placed in the trash (batteries can be collected for curbside recycling). Instead, put the batteries in a clear plastic bag and place them on top of the household's blue recycling container.
- 15) T Although Santa Barbara County has reached a diversion rate of 75%, the Tajiguas Landfill has 11 years remaining to reach capacity. Once capacity is reached, where are we going to put our trash? Discuss with your students the possible solutions for reducing trash into landfills and what they think will happen to the landfill once it reaches capacity.