

CONSERVATORY READER: WE'RE DIGGING DECOMPOSERS!



Figure 1: An early view of the Conservatory.

The Garfield Park Conservatory opened in 1908 and is one of the largest conservatories in the United States. The Conservatory is made up of two acres of indoor greenhouses and ten acres of outdoor gardens. The indoor greenhouses consist of eight rooms that grow mostly tropical and desert plants. Figure 1 shows the glass roof covering the largest greenhouse at the Conservatory, the Palm House.

Home to venus fly traps, tall palms, and chocolate trees, the Conservatory is a place to learn and explore!



What happens to my garbage?

There are many ways to deal with household waste, like throwing it away or recycling it. When you recycle, new materials will be made out of your waste. But what about the things you throw away? Have you ever wondered what happens to garbage once it gets picked up in the garbage truck?



Trash is piling up at this landfill.

Most of your garbage goes to a **landfill** where it is piled with other trash. As layers of trash accumulate, no oxygen can reach the garbage. For waste like plastic and other non-organic materials, a lack of oxygen does not matter. These objects will unfortunately take up space at the landfill for a long time. For organic materials like food waste and wood, a lack of oxygen means that **anaerobic decomposition** is taking place.



While this looks like a hill, we know that there is a mountain of trash underneath!

Anaerobic decomposition is a process where microorganisms break down materials in the absence of oxygen. This process produces **methane gas**. Methane gas is a greenhouse gas that has damaging effects on the earth. As a greenhouse gas, it contributes to global warming by trapping heat in the atmosphere.

Once the landfill is full, it is covered up with a seal to keep it contained. Dirt is then piled on top. There are special holes or **vents** to let gases out. Organic waste decomposing in this way is causing climate change.

Recycling and limiting our use of plastics can help diminish non-organic materials that end up in landfills, but what about organic waste? What steps can we take to limit the amount of organic waste that goes to landfills? Come visit the Garfield Park Conservatory to find out!


WE'RE DIGGING DECOMPOSERS! DISCUSSION QUESTIONS

 What can you do to make sure less trash goes to the landfill?

 Can you think of anything else we can do with food we don't eat instead of throwing it in the trash?

 In a natural environment like a forest, is there a trash or waste system? How do nature's living organisms - animals, fungi, bacteria - handle fallen leaves or broken branches? How could we apply some of these concepts or models to our organic waste?

 Why is it important that we think about waste?

 What questions do you have about what happens to our waste? Remember them or write them down and ask the staff at the Conservatory!

School groups are welcome at the Conservatory Tuesday through Friday from 9 am-1 pm. For more information visit garfieldconservatory.org/group-visits or email groups@garfieldpark.org.

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