

GOOEY GARBAGE

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THIS IS A 20 - 25 MINUTE PRESENTATION

1. **INTRODUCE** yourself
2. **GROUPS** of 4 - 6 students
3. Ask source of their drinking water

PUT SMALL AMOUNT OF WATER INTO TRAY AS A REPRESENTATION OF THEIR DRINKING WATER SOURCE

Landfills may contaminate water. Learn about landfills and how contamination might occur

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4. **HISTORY** of garbage and landfills
5. **WORK** stations
6. **LAB** activity begins. Explain a landfill is similar to the milk jug container. The earth has a hole dug into it (milk jug), a liner (the baggie) is placed in the hole, with solid waste (the items they're going to add) which is generally located above or near groundwater

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7. **LINERS** - show samples
8. **DEMONSTRATE** placement of baggie and reminder of leaving the lid carefully in place

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FILL THE LANDFILL

Student Suggested Waste	Supply Item
Paint	Food Coloring
Oil and Petroleum Products	Vegetable Oil
Cleaners	Ketsup
Items that don't decompose	Syrup
Paper Products	Bathroom Tissue
Plant Waste	Hamster Bedding
Food Waste	Cereal
Solid Waste	Spaghettio's

THE 3 R'S ARE EARTH FRIENDLY

REDUCE - REUSE- RECYCLE

With each supply item added, ask students a better way to dispose of it.
Some examples: recycling center, composting, reusing

9. **STIR** the landfill. Caution the students: **THEY CAN NOT TOUCH THE BOTTOM THE LANDFILL!**
10. **ASK** how land fill smells.
11. **SANITIZE** landfill by adding the soil
12. **RAIN** on landfill. Allow students to squirt water from bottled water onto of their landfill. Explain precipitation, percolation, leachate and point out the leachate collecting system on the banner.

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13. **ASK** students what will happen to the aquifer when the lid is removed. Have students carefully remove lid.
14. **WHAT** happened? - Nothing. Re-emphasize the liner
15. **EXPLAIN** that their liner didn't have any leaks in it. Ask what will the aquifer look like if the liner leaks.
16. **WALK** around the room and punch several holes in the liner with one of the wooden skewers.

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17. **EXPLAIN** leachate again. Ask students if they'd like to drink this water.
18. **Reiterate** that all litter and pollution ends up in water.

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Only if time permits

Where is your community landfill? Who has been there? Can you describe what it look like?

What happens to things in the landfill other than food, such as paint, motor oil, and household chemicals?

HAVE STUDENTS LOCATE THESE CHEMICALS IN THEIR LANDFILL AND AQUIFER

What happens if there are toxic substances in the landfill?

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CLEAN UP AND SET UP FOR NEXT SESSION

1. Have helper walk large garbage can around the room and have each group carefully discard liner from the milk jug
2. Have one volunteer from each group bring empty, cups to the front of the room and pick up new supplies for their work station.
3. Have one volunteer from each group wipe out the aquifer and milk jug
4. Have one volunteer from each group wipe off the wooden paint stirrer
5. Have teacher collect enough handouts from the stack for each student in the class. Remind teacher to get take an answer key
6. Compliment the group on its behavior and thank them for participating before dismissing them.