

Environmental Education: 3Rs (Reduce, Reuse, Recycle)

Hartland Landfill Tour Worksheet

Answer the questions about Hartland Landfill below. You may complete the worksheet during the tour or challenge yourself and answer the questions after the tour to see how much you remember.

1. How many landfills are there in the Capital Regional District for municipal waste?

2. What is one difference between a “dump” and an engineered landfill, such as Hartland?

3. Name three items that you can recycle at a drop-off depot such as the Hartland Public Drop-off Area:

4. Improper disposal of which common household item(s) can lead to fires at the landfill?

5. How much does the garbage compactor weigh?

6. What year is Hartland Landfill expected to be full? Bonus question: How old will you be?

7. What is one thing we do at the active face to prevent birds from eating the garbage?

8. What are the 4 material categories that account for the largest percentages of waste ending up in the landfill?

9. What is something you saw at the active face that could have been reduced, reused or recycled?

10. What are the two by-products from landfilling that are managed for environmental impacts?

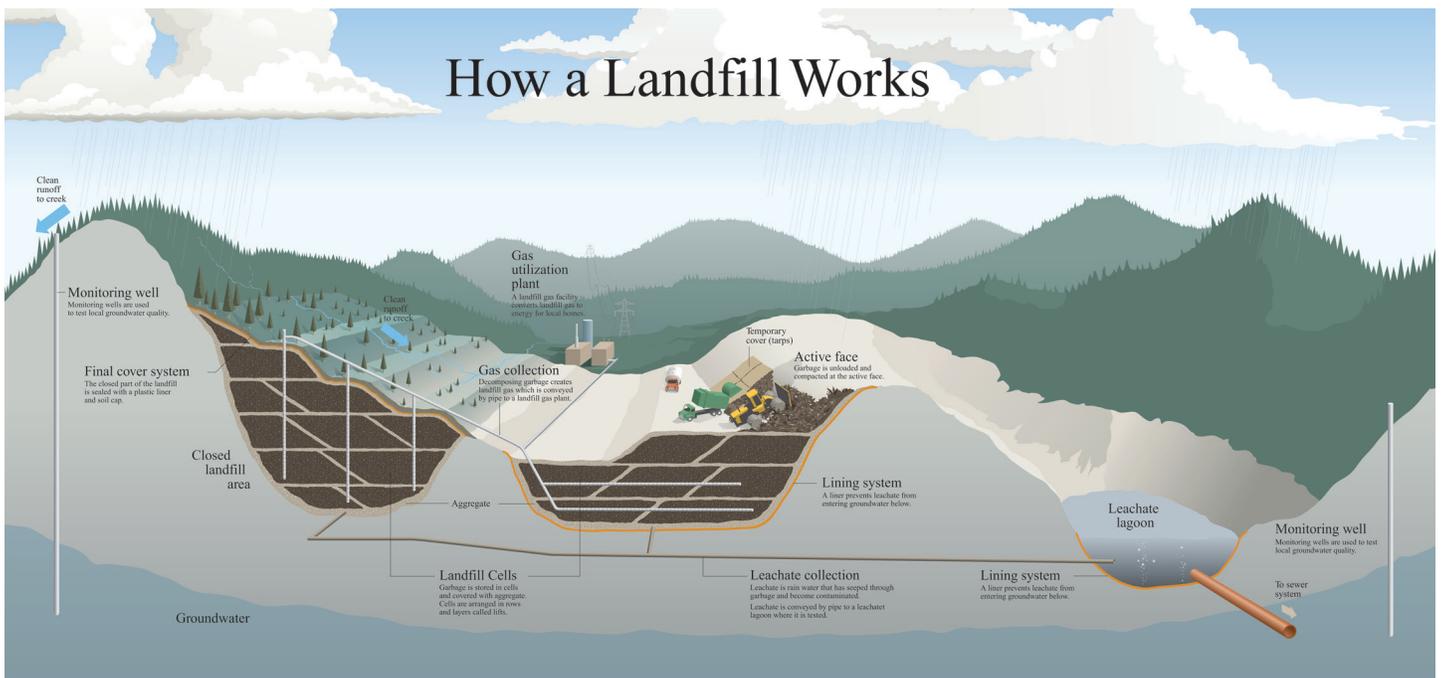
11. What is another (unofficial) name for leachate?

12. When garbage decomposes it produces landfill gas. At Hartland, this gas is captured and converted into:

13. When an area of the landfill is full we close it. What have we done with the closed, Phase 1, area of the landfill?

14. What is something you will do to reduce the amount of garbage you create and help Hartland Landfill last longer?

15. Are there any questions you had about waste, recycling or landfills that were not answered?



Hartland Landfill Tour Worksheet: **Answer Key**

1. How many landfills are there in the Capital Regional District for municipal waste?
 - *One. There are occasionally some smaller landfills that accept construction waste but municipal waste goes to Hartland.*
2. What is one difference between a “dump” and an engineered landfill, such as Hartland?
 - *In the most simple terms a dump is a hole in the ground that you put garbage in, no restrictions on what can be thrown away and no environmental monitoring in place. An engineered landfill is designed and managed to minimize environmental impacts (e.g. household hazardous waste is collected for safe disposal, landfill gas and leachate are captured and monitored, surface water is diverted and/or tested, etc.)*
3. Name three items that you can recycle at a drop-off depot such as the Hartland Public Drop-off Area:
 - *Paint, motor oil, gasoline, batteries, electronics, appliances, light bulbs, paper, cardboard, Styrofoam, plastic bags, metal, glass jars, mixed containers, tires, clothing, bicycles, household hazardous waste, propane tanks etc.*
4. Improper disposal of which common household item(s) can lead to fires at the landfill?
 - *Batteries, electronics, household hazardous waste (e.g. gasoline and other flammable liquids), propane tanks etc.*
5. How much does the garbage compactor weigh?
 - *37 tonnes, or the equivalent of 37 cars.*
6. What year is Hartland Landfill expected to be full? Bonus question: How old will you be?
 - *2045. Bonus: Age + 24.*
7. What is one thing we do at the active face to prevent birds from eating the garbage?
 - *Trained falconers on site with trained raptors, make loud noises with propane cannon screechers/“scare flares” or by cracking whips and cover garbage with a tarp at the end of each night.*
8. What are the 4 material categories that account for the largest percentages of waste ending up in the landfill?
 - *Organics/food scraps (21.1%)*
 - *Wood and wood products (17.0%)*
 - *Paper and paperboard (15.4%)*
 - *Plastics (14.3)*
9. What is something you saw at the active face that could have been reduced, reused or recycled?
 - *Plastic bag, Styrofoam, couch, stuffed animal, desk, chair, water bottle, electronic, cardboard box, scrap metal etc.*
10. What are the two by-products from landfilling that are managed for environmental impacts?
 - *Leachate and landfill gas (methane + carbon dioxide)*
11. What is another (unofficial) name for leachate?
 - *“Garbage tea”*
12. When garbage decomposes it produces landfill gas. At Hartland, this gas is captured and converted into:
 - *Electricity, enough to power 1,100 homes in the region.*
13. When an area of the landfill is full we close it. What have we done with the closed, Phase 1, area of the landfill?
 - *Capped it with a thick plastic membrane, covered it with a layer soil taken from on site and have planted over 20,000 native plants. The area now provides habitat to birds, insects, deer and other wildlife. Landfill gas and leachate are still monitored and collected.*
14. What is something that you will do to reduce the amount of garbage you create and help Hartland Landfill last longer?