

POWERDOWN OLYMPICS

page
1/5

OBJECTIVE // To introduce participants to our dependency on fossil fuels, and the impact of these fuels on the planet through an interactive, team-based strategy game.

TIME // 45-60 minutes

GROUP SIZE // 12-60 people (for groups larger than 60, additional preparation is required)

LEADERS REQUIRED // Facilitator, one leader at each station to collect transportation fees in transportation and to run the corresponding activity

MATERIALS //

- Chart of Transportation Costs and Travel costs (a poster on the wall, print out at each station, or project a copy onto the wall)
- Reusable tokens (beads, popcorn kernels, paper clips, etc.) 50 per team (4-6 people)
- Timer or Clock
- Copy of Power Use chart for station 3, and cards with power uses separate
- Assortment of bathroom products (e.g. toothpaste, soap, lotion, nail polish, shaving cream, perfume, sunscreen, ibuprofen, hair brush, toothbrush, razor, etc. Ensure you have products that contain petroleum-derived ingredients and products that do not.)
- Food or images of food, including fruits and vegetables grown locally as well as those that are imported from far away, such as apples, bananas, potatoes, pineapples, etc) as well as three dinner places, one with local, cooked ingredients, one with imported cooked ingredients and one with local ingredients that do not require cooking.
- Water or juice ready for after the game
- White Board or Flip Chart paper and markers for the discussion at the end

PREPARATION //

- Go through the outline with all team members, ensure all understand the goal, the process, and their role
- Set up each station. For larger groups, multiple sets of materials can be used at each station so that groups can simultaneously do the activity... extra leaders may be required at each station to check answers and mark passports
- Establish a start line and finish line
- Decide if you will give a time bonus for unused transportation tokens

POWERDOWN OLYMPICS

page
2/5

OUTLINE //

Divide participants into groups of 4-6 people, and give 50 transportation tokens to each team.

Instructions:

- Each team will have to travel to 3 stations, which will require strategic transportation decisions.
- Each station has an activity that will challenge your knowledge and choices about using fossil fuels, which damage the Earth and cause civil conflict. We will learn how to tread more lightly on the Earth.

Starting off – Transportation

You want to go as quickly as possible with the smallest carbon footprint. You need to travel from the starting line through three stations and then to the finish line. Each time you have to travel, your group must make a decision together about how you will travel. Each group has 50 transportation tokens, and the chart on the wall tells you the cost and time each transportation method costs. If you run out of tokens before you reach the finish line, you are out of the game.

NOTE // Refer to chart and explain the task, e.g. if the group chooses to go by plane, they run from starting line to first station and pay the leader 25 tokens. If the group chooses to go by train, they run back and forth from the starting line to the first station a total of 5 lengths and pay 9 tokens.

Stations

STATION A – MY BATHROOM'S FULL OF FOSSIL FUELS?

Petroleum is a fossil fuel. This station focuses on petroleum-derived products in your bathroom. Your bathroom is full of products that are petroleum derived (e.g. toothpaste, soap, lotion, hair spray, nail polish, sunscreen, perfume, aspirin). Your team must sort a group of bathroom products into 2 categories – those with petroleum derived ingredients and those without.

POWERDOWN OLYMPICS

page
3/5

NOTE // *Gather a collection of bathroom products. Include three items that are not derived from petroleum. If the group does not successfully identify the three items without petroleum on the first try, let the group know how many they got right and let them try again. If on the second try, they are still not successful provide them with some hints e.g. items with any of the following ingredients are petroleum based: Di-n-butyl phthalate (DBP), Petrolatum, Di-ethyl phthalate (DEP), PVP/VA Copolymer, petroleum-derived synthetic fragrances, phthalates, ...*

STATION B – CARBON FOR DINNER?

Every food you eat has a different carbon footprint. For example, some foods have been transported huge distances by truck fuelled by burning fossil fuels and some foods have been cooked which uses fossil fuels. Your team must get past two obstacles successfully (1) choose the food item with smallest carbon footprint (2) choose the meal with the smallest carbon footprint.

NOTE // *(1) Display three fruits or vegetables with one that has traveled the farthest to your table (e.g. pineapple, apple and potato). (2) Display three meals (photo) with one that has the highest carbon footprint (e.g. one that has been cooked and has ingredients from far away, one that has been cooked but local and one that does not require cooking and uses only local ingredients)*

STATION C – POWERDOWN

Every day we use appliances that require electricity. Burning coal to generate electricity releases carbon dioxide into the air and contributes to climate change. List these uses from the least consumption to the highest consumption of power.

NOTE // *Print out list of nine power uses below (left hand side) and cut into slips of paper so they can moved around and put into order. The total watts calculations are for the reference and use of the activity leader only.*

POWERDOWN OLYMPICS

page
4/5

POWER USE	TOTAL WATTS
Playing football for 4 hours	0 watts
Microwave for 2 minutes	1500 watt/h * 0.03 h = 45W
Fluorescent light bulb on for 3 hours	20 watt/h * 3 h = 60W
Boiling water on stove for 5 minutes	1250 watt/h * 0.08 h = 100W
Incandescent light bulb on for 3 hours	100 watt/h * 3 h = 300W
Using laptop for 2 hours	60 watt/h * 2 h = 120W
Drying your hair for 10 minutes	1540 watt/h * 0.17 h = 262W
Watching LCD TV for 7 hours	220 watt/h * 7 h = 1440W
Clothes dryer (electric) for 30 minutes	4400 watt/h * 0.5 h = 2200W
Keeping food cool in the fridge for 12 hours	500 watt/h * 12 h = 6000W

FINISH LINE //

Provide water or juice to participants as they cross the finish line

Once everyone has gathered:

- Congratulate the team that came fastest and the one with the lowest carbon footprint.
- Say, "Our dependency on fossil fuels is killing people and the planet. It doesn't have to be this way! Help you and your friends end this addiction. Let's brainstorm ways we can make our THINKfast less dependent on fossil fuels, and remind each other through the weekend to stick to them!"

POWERDOWN OLYMPICS

page
5/5

- Post flipchart paper with, or divide a whiteboard into, four categories: **Transportation - Shelter & Utilities - Retail & Entertainment – Food & Cooking**
- Put ideas in the right category so the group can use them throughout THINKfast, and highlight the earth-friendly decisions your planning team implemented, such as using reusable tokens rather than paper to track your progress through this game, and serving tap water rather than bottled water.
- Open up for general discussion. Share with the group a few facts about Fossil Fuels and Climate change (see fact sheet referenced above). As a group, commit to three more actions the group will take to be more earth-friendly throughout the THINKfast.

IDEAS //

- Ensure room lights are being turned off when not in use (perhaps make a sticker to put near doorways to remind the person when leaving)
- To use both sides of paper rather than recycling after one side is used
- Using glass pitchers and glasses or reusable water bottles throughout the THINKfast, and at home. If disposable cups must be used, opt for compostable options, and write names on them so they can be reused prior to being composted.

TRANSPORTATION COSTS // Reproduce table and post

	KM	TRANSPORTATION OPTIONS		
		Vehicle	Time	Cost
Starting line – First Station	500 km	Plane	1	25 Tokens
		Train	5	9 Tokens
		Bus	7	7 Tokens
Distance Between Stations	10 km	Bus	1	7 Tokens
		Bike	3	Free
Last Station – Finish Line	50 km	Bus	1	7 Tokens
		Bike	3	Free

For Station 3 (Need one complete table for leader, and separate items on left for participants to put in order)