

Supplement C: Follow the Footprint Challenges

1. Read by the Boat House before you head to the challenges

Just like walking on the sand
We leave our footprints on Earth's land,
In the sky and water too,
Just by the things we choose to do.
Working as a group today,
We'll Follow the Footprints along the way!

2. Sort it Out

Objective: Correctly sort objects into 4 categories—waste, recyclable, compostable, and reusable.

Location: Natural Playground (tree trunk circle)

Clue: (read BEFORE the challenge)

All the things we use each day
Should we reuse, recycle, or just throw away?
Look through the items and decide what to do
When it's no longer useful to you.
Choose the best disposal route
And work as a team to Sort it Out!

Instructions:

The students will have one minute to sort objects in the center pile into 4 categories: waste, recyclable, compostable, and reusable (located around the circle of tree stumps). Some objects may fit into more than 1 category, but in order to get credit students must sort items into the category that is best for the environment (i.e. reusable > recyclable, compostable > waste).

Scoring is based on the number of items they sort CORRECTLY in **one minute**. If students put anything into the "reusable" pile that isn't obvious (like a reusable bag or water bottle), they must explain **how** they would use it in order to get credit (ex: they would use a plastic grocery bag to pick up pet waste or they would sew Capri Sun pouches into a lunch box).

After scoring, briefly go over any items the students sorted incorrectly. At the end of the challenge, ask students to put objects back in the pile at the center of the tree stump circle so they are ready for the next group.

Answer Key: (20 items total)

- Waste (5)—Tostitos chip bag (made of foil and plastic so it's not recyclable), Capri Sun, Styrofoam, popsicle stick, dried up marker
- Recyclable (6)—yogurt cup, coke zero bottle, blueberry container, plastic grocery bag, glass jar, toilet paper roll
- Compostable (5)—watermelon, grapes, orange, bread, carrot
- Reusable (4)—orange lunch box, cloth bag, blue water bottle, t-shirt

Hint:

Anything students put into the “reuse” pile that could reasonably be considered reusable is correct! (Kids **must** explain how they would reuse or repurpose the item, unless it is obvious)

BONUS:

The group will get an extra 5 points if they can explain *why* composting organic waste is better than throwing it in the trash.

Possible answers:

- *Reduces the amount of trash in landfills*
- *Creates nutrient-rich soil that is healthy for plants*
- *Saves money on soil and fertilizer*

Scoring:

2 points for each item sorted correctly—maximum: 40

Possible Bonus: 5

3. Clothesline Relay

Objective: Hang up and take down all the clothes from the clothesline as a group relay in the shortest amount of time possible.

Location: Behind Magothy Cabin

Clue: (read BEFORE the challenge)

Pick your clothes up off the floor!
I’m sure you’ve never heard *that* before.
We like our clothing clean and dry,
The most Earth-friendly way is to hang them up high.
Instead of electricity, use a sunny place
To dry all your clothes in this relay race!

Objective: Hang up and take down all the clothes from the clothesline as a group relay in the shortest amount of time possible.

Location: Behind Magothy Cabin

Instructions: Line up as a group. When the timer starts, the first person should pick up an item of clothing and hang it on the clothesline using the clothespins (1 clothespin per item). Once finished, they should run back to the group and tag the next person in line to hang up an item of clothing. When all the clothes are hung up, the relay continues until one-by-one the team takes down all of the clothing. The timer stops when every piece of clothing has been hung, taken down, and returned to the original pile. **If more than 9 students in a group, separate into 2 lines facing each other with the clothes in the middle.**

BONUS:

The group will earn an extra 5 points if they can explain *why* using a clothesline reduces your ecological footprint.

Possible answers:

- *Drying your clothes on a clothesline instead of a drying machine saves electricity at home, reducing your ecological footprint.*
- *Hanging your clothes on a clothesline also keeps them from wearing out so they last longer—*

which means you don't have to buy new clothes as frequently (this also saves resources)!

Scoring: (timed)

Less than 1 minute = 20 points

1:00-1:30 min. = 15

1:31-2:00 min. = 10

Greater than 2:00 min. = 5

Possible Bonus: 5

4. Fill the Barrel

Objective: "Fill" the rain barrel by coming up with strategies for conserving water.

Location: Amphitheatre behind Severn Cabin

Clue: (read BEFORE the challenge)

Drip drop, drip drop,
Fill the Barrel to the top.
Think of things that we can do
To conserve the precious blue.
Work as a team and act it out
To reduce what we use out of the spout!

Instructions: Students should sit on the benches in front of the Amphitheatre stage. The activity leader should stand on the stage with the rain barrel. The students' challenge is to come up with ways to save water. For each strategy they come up with, they earn a water drop to add to the barrel (with Velcro). As they earn more water drops, they "fill" the rain barrel (8 drops = a full rain barrel).

How will the students think of ideas to save water? CHARADES! One-by-one students can come up to the stage and either pick a card (with pre-written strategies) or make up their own (and tell the instructor what it is). Make sure the student shows you their card or tells you their idea before they start acting so you know what the group is trying to guess.

Each student should act out whatever is on the card to try to get the rest of the group to guess what it is (similar to charades). The student can point or use available props, but they cannot speak at all and they must stay in the stage area. If a strategy is too difficult to act out or the group is not guessing it, a student can "Pass" one time and either choose a new strategy or make one up. Once the students guess the strategy, either choose a volunteer or select the next student down the line to come up and act out the next strategy. Play until students earn all 8 water drops, run out of cards or ideas, or until there are only **fifteen minutes left** in the lesson so you have time to return to the starting point for the Action Project

Hint:

The strategies can include anything from uses for rain barrel water, ways to conserve water at home, and reducing your water footprint by reusing products or choosing not to buy products that take a lot of water to produce. If a student comes up with an idea that is already written on the cards they can still act it out.

Strategies: 1 water drop for each strategy (must think of 8 to receive full credit)

- Uses for rain barrel water (wash your car, water a garden, etc.)
- Turning off the faucet while you brush your teeth
- Take showers instead of baths
- Take shorter showers
- If it's yellow let it mellow...
- Wash clothes or dishes only when you have a full load
- Re-use or use hand-me-downs instead of buying new things

Scoring:

7-8 drops = 20 points

5-6 drops = 15

3-4 drops = 10

1-2 drops = 5

Bonus Points: 5 points if the students can explain why eating your leftovers would save energy.

Final Bonus Points: 5 points if each student can come up with one thing they can do every day to save energy.

Supplement D: Map

Follow the Footprints Map

KEY:

- ★ Start/Finish
- 1 Sort it Out
- 2 Clothesline Relay
- 3 Fill the Barrel
- Travel Route

Supplement E: Conservation Point Classifications

0		<h2>Saplings</h2> <p>With the right mix of nutrients, water, and sunlight a young sapling will grow into a strong tree. Just like a sapling, you are starting to understand your role in protecting the environment. With the right mix of education and motivation you can grow into a steward of the Earth! <i>What are some things you could do to shrink your ecological footprint and conserve resources?</i></p>
10		
20		
30		<h2>Emerging Environmentalists</h2> <p>You're off to a great start! You've already learned and tried out some strategies for reducing your ecological footprint and conserving resources.</p>
40		
50		<p><i>What are some other strategies you could use at school or at home to reduce your individual ecological footprint?</i></p>
60		<h2>Green Machine</h2> <p>You've already taken some major steps towards becoming an environmental steward!</p>
70		<p><i>How could you improve your daily actions to further shrink your ecological footprint become a super steward?</i></p>
80		<h2>Super Stewards</h2> <p>A steward is someone who takes care of or looks after something. You demonstrated today that you know how to take care of our local environment and conserve resources!</p>
90		<p><i>What could you teach your family or friends at home about being an environmental steward?</i></p>
100		<h2>Earth Champions</h2> <p>Wow—you know what it takes to conserve and protect Earth's resources for others and the future!</p> <p><i>How can you inspire others around the world to take steps to shrink their ecological footprint and conserve?</i></p>



Supplement F: Vocabulary

Ecological footprint—an ecological footprint is the measure of the pressure we put on the planet based on the amount of resources we use, the amount of land we take up, and the waste and pollution created as a result of our actions.

Steward—a steward is someone who takes care of something. A Chesapeake Steward is someone who takes care of the Chesapeake Bay. In this lesson we go one step further to learn how to be stewards who take care of the Earth as a whole.

Conservation—saving or using less of; we conserve resources so there is some left for other people, animals, and future generations.

Natural resources—things that are found in nature and can be used by people. Earth's natural resources include light, air, water, plants, animals, soil, stone, wood, minerals, and fossil fuels.