**Lesson Guide 1**

| **Objective:** Learn what single-use plastic is and the alternatives to single-use plastic  |
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| **Topic:** Alternatives to single-use plastic  |
| **Information:*** Single-use plastic is plastic that you use one time and then generally throw away right after use. Example: plastic water bottle, ziploc bag, plastic utensils, plates, straws, pop bottle, etc.
* Plastic is harmful because it is made from fossil fuels (coal, oil, and natural gas), which are nonrenewable resources. Nonrenewable resources are resources that take thousands of years to be created within the earth, so we don’t want to use them up as quickly. These fossil fuels are used for other uses, like cooking and heating. Fossil fuels are not good in general because when we burn them, we create greenhouse gases.
* Greenhouse gases are gases that trap heat within the Earth's atmosphere, causing extreme weather pattern changes, melting of the glaciers, sea levels to rise, and making it more difficult for plants to thrive.
* Facts: $370 billion is spent on creating plastic, $32 billion is spent to clean it up, and 92% of plastic is not recycled. That means 79% is not recycled, 12% is burned (causing air pollution), and 9% is recycled.
* 460 million tons of plastic are used in a year! This is equal to 500,000 elephants or 38.3 million school buses. 20 million tons of this plastic end up in the environment each year.
* Plastic never disappears; it only breaks down into tiny pieces (microplastics), which end up in our food and water supply.
* Alternatives to single-use plastic are: reusable plastic containers, reusable bags, beeswax wraps, cloth, refillable water bottles, stainless steel, glass, bamboo, and other sustainable materials.
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| **Activities:** Board game |
| **Board game rules:** Create a game about alternatives to single-use plastic. **Materials needed:**  Construction paper, writing materials, scissors, glue, cardboard, and other materials for a board game. |
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**Lesson Guide 2**

| **Objective:** Learn what can and can’t be curbside recycled, as well as where other recycling can go.  |
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| **Topic:** What can and can’t be recycled?  |
| **Information:** * Curbside recycling is recycling that is picked up at your house or business.
* Some items that can be curbside recycled are: Glass (unbroken), hard plastic, aluminum and metal cans, pop cans, bottles (plastic and glass), cardboard, paper (not shredded), and milk jugs.
* Make sure to flatten cardboard and rinse/dry items before putting them in recycling. If they are dirty, they will contaminate other materials and not be recycled.
* Items that CANNOT be curbside recycled: soft plastic, plastic grocery bags, ziploc bags, styrofoam, electronics, mylar, food, liquids, etc.
* Items that need to be trashed: styrofoam, mylar, food, etc.
* Where can other recyclable items be recycled? Keep Northern Illinois Beautiful (electronics, phones, wire, etc), Paper recovery (shredded paper), and Walmart, Meijer, and Kohl's (plastic bags, ziploc bags, flexible soft plastics)
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| **Activities:** Recycling game |
| **Recycling game directions:** * Pick a card and look at the object on that card
* Next, go over to the pile of mixed-up items and locate the object that is on the card
* Then, pick up that item and decide how it is best recycled by placing it in the designated area (trash, recycling, or recycling elsewhere) that it belongs to
* After placing the item, high-five the next person in your team to go
* When your team is finished, sit down!
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| **Materials needed:** * About 30 items that are a mix of curbside recycled, recycling elsewhere, and trash items.
* Cards with the picture of each item or write the name of each item, so the students can identify the ones to pick up.
* **\* Make sure to research where each item goes before starting the game to correctly teach them where items go to be recycled.**
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**Lesson guide 3**

| **Objective:** Learn what the 4 R’s are in recycling and why they are important |
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| **Topic:** The 4 R’s of recycling  |
| **Assessment:** Understanding the 4 R’s (Reduce, Reuse, Recycle, Refuse) |
| **Information:** * Reduce: Limit how much single-use plastic you use daily. Use alternatives instead.
* Reuse: Use a single-use item more than once. Use a Ziploc bag multiple times, refill a plastic water bottle multiple times, etc.
* Recycle: Put the recyclable materials in the correct type of recycling. Make sure to rinse out/ clean out items to remove food and liquid debris. Flatten the cardboard and follow the directions on where items get recycled.
* Refuse: Do not use single-use plastic. Don’t buy it, prioritize alternatives over single-use plastic.
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| **Activities:** Make a piece of art using recycled materials, create a song, poem, or rap about the 4 R’s, create a poster about the 4 R’s |
| **Materials needed:** Art supplies for a poster, pens, poster board, paper, scissors, tape, and recyclable items |

 **Lesson Guide 4**

| **Objective:** Learn what the numbers mean for recycling and which numbers are recyclable, and which to avoid.  |
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| **Topic:** Recycling by numbers  |
| **Information:** * 1- Polyethylene Terephthalate (PETE), Water bottle, soda bottle, peanut butter container, Recyclable? Yes
* 2- High-Density Polyethylene (HDPE), Milk jug, shampoo bottle. Recyclable? Yes
* 3- Poly Vinyl Chloride (PVC) Clear food packaging, piping Recyclable? No, AVOID
* 4- Low-Density Polyethylene (LDPE) Plastic food wraps, squeezable bottles. Recyclable? Yes
* 5- Polypropylene (PP) Yogurt container, ketchup bottle. Recyclable? Yes
* 6- Polystyrene (PS) Disposable plates and cups Recyclable? No, AVOID
* 7- Other plastics (OTHER) Baby bottle, 5-gallon container.r Recyclable? No, AVOID
* Biodegradable plastics- Bio-based plastic Recyclable? Yes + Compostable
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| **Activities:** * Identifying Game
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| **Game instructions:** Have a pile of recycling and sort through using cards to identify what type of plastic each item is, using the recycling by numbers.  |
| **Materials needed:**  A mix of recyclable items and the number on a card |

**Other activities:**

* Use the rubric of activities to earn points or prizes.
* Do activities that add up to 25 points, but strive for more. The more points you can earn the better!
* Swap out activities from the lesson guide with activities from the rubric if needed as well!
* Remember: earn at least 25 points and **MAKE A CHANGE FOR CHANGE!**