



Teacher-led Activity: Decomposition Relay



Fungus, bacteria, and invertebrates are living decomposers that break down natural materials like apple cores and return nutrients to the environment. Materials like plastic are not broken down by decomposers. Instead, plastics are broken down into smaller and smaller pieces by the sun, wind, and waves, but they never completely go away. Wildlife can be killed by getting entangled in plastic trash or eating trash. There are many ways we can keep wildlife safe from our waste, whether it's reducing the amount of disposable plastic we use, or picking up trash outside. Play this game to learn about what we can do everyday to help wildlife! This is a cooperative relay race where your whole team works to beat their own record and match trash with the time it takes for it to decompose or break down.

Here's what you will need for this activity:

- Trash cards and decomposition rate cards
- Something to mark the start line (cone, rope, hula hoop, etc)
- Timer
- Safe outdoor space to run
- 1-6 players

Round 1

- Cut out the trash cards and decomposition rate cards.
 - Spread out all of the decomposition cards on the ground about 100 feet from the start line (or at the other end of the outdoor area).
 - Players form a line behind the start line. Each player gets 1 trash card to hold, and thinks about how long it might take for that type of trash to decompose in the environment.
 - Start the timer when the first player runs from the start line to the decomposition cards. The player puts their trash card next to a possible matching decomposition card, and then runs back to the start line. The player goes to the back of the line and gets a new trash card.
 - Then it's the next player's turn to run and try to find a match for their card.
 - Stop the timer when all the trash cards have been placed by the decomposition cards and the last player returns to the start line. Write down your team's time so that you can try to break your record in the next round!
 - All the players gather around the cards on the ground and compare their guesses to the answers.
- Questions to discuss as a team: Were any of the decomposition times surprising? Why might some materials take longer than others to decompose? How do you feel about this information? What are ways that we can use less disposable plastic and reduce the amount of trash in the environment?

Round 2

- Repeat the steps in round 1 and try to set a new record. This time, match the trash cards to the correct decomposition cards using what you learned from round 1.
- When all of the cards have been matched, the players gather around the cards and discuss if any of them need to be rearranged.
- Play until you set a new record and correctly match all of the cards!

Decomposition Relay

Descomposición carrera de relevos

Trash Cards

Cartas de basura

Cut out the cards below and hand them to each player in the relay race.



Apple core
Corazón de manzana



Styrofoam
Poliesterino o espuma de plástico



Paper towel
Toalla de papel



Plastic bag
Bolsa plástica



Plastic bottle
Botella plástica

Lata de aluminio



Aluminum
Soda can

Decomposition Relay

Descomposición carrera de relevos

Decomposition Cards

Cartas de Descomposición

Cut out the cards below and spread them on the ground about 100 feet from the start line (or at the other end of the outdoor area) in the relay race.

2-4 weeks
Semanas

2 months
Meses

20 years
Años

200 years
Años

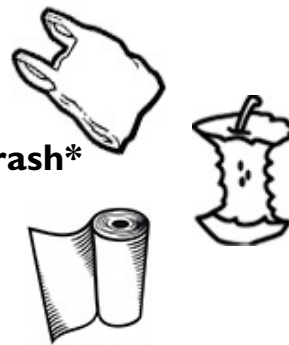
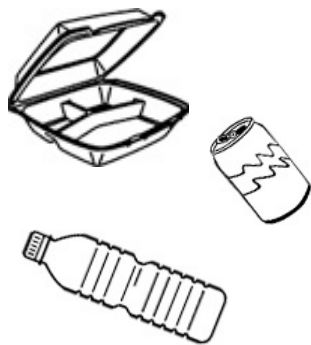
450 years
Años

Never
Nunca



Decomposition Relay

Decomposition Rates of Common Household Trash*



Paper towel2-4 weeks

Apple core.....2 months

Plastic bag.....20 years

Aluminum can ...200 years

Plastic bottle450 years

Styrofoam Never

Reflexión:

La lluvia y el viento pueden arrastrar la basura a masas de agua cercanas. Los arroyos y los desagües pueden arrastrar la basura directamente al océano. Cuando la basura plástica llega al medio ambiente, puede permanecer durante mucho tiempo y dañar la fauna. Podemos mantener el plástico fuera del medio ambiente reduciendo la cantidad de plástico desechable que utilizamos en nuestra vida cotidiana.

La fauna también se siente atraída por los olores de la comida que hay en la basura, y puede comer cosas que no son buenas para ella. Accidentalmente pueden comer plástico, o enredarse en envases como anillas de refrescos, bolsas de malla de plástico y contenedores de comida. Si se acostumbran a comer comida de la gente, pueden resultar heridos o muertos si pasan más tiempo cerca de carreteras con coches que circulan rápido, y patios con perros y gatos. Hay muchas maneras de proteger a la fauna de nuestros desechos.



Photo by Douglas Croft

Prueba algunas de estas ideas en casa, y a ver si se te ocurre algo más que puedas hacer para ayudar a la fauna de tu barrio.

- **Asegura la tapa de tu basurero, recicladora y compostera:** Utiliza una cuerda elástica, un candado o un objeto pesado como un bloque de hormigón.
- **Lava los contenedores de comida antes de tirarlos a la basura o reciclarlos:** Lava latas, contenedores de yogur, tarros de mermelada, tarros de salsa para pasta, etc.
- **Corta objetos en los que pueda enredarse un animal:** Corta anillas de refrescos, bolsas de malla plástica (como en las que vienen las mandarinas), recipientes de plástico para comida, etc.
- **Ata las bolsas de plástico con un nudo o recógelas para reciclarlas:** Atar las bolsas de plástico usadas con un nudo puede evitar que se las lleve la brisa. Algunos supermercados, como Safeway, aceptan bolsas de plástico limpias para reciclar.
- **Corte los lazos de las orejas de las mascarillas desechables antes de desecharlas.**
- **Hazte voluntario para recoger la basura de tu comunidad.**
- **Compra menos plástico:** Cambia los productos de plástico por productos reutilizables de larga duración, como botellas de agua, bolsas de merienda, bolsas de tela y popotes metálicos.
- **Reduce your waste, reuse items, and find out what can be recycled where you live!**