

Activity 1: The Great Green Neighborhood showdown!

In this activity, you will compare two neighborhoods: a **GREEN** (eco-friendly) neighborhood and a **LESS GREEN** neighborhood. Which one is better for the planet? It's up to you to find out!

Why is this important?

Every day, our actions have an impact on the planet. Some things we do help the environment, while others harm it. The good news? Even small actions can make a big difference!

How to protect our planet daily

- Turn off the lights when you leave a room
- Take shorter showers to save water
- Grow fruit and vegetables at home
- Use reusable containers instead of plastic bags
- Bring a reusable water bottle
- Walk or bike for short distances
- Carpool with a friend
- Recycle properly by following your city's guidelines
- Avoid single-use plastics (straws, utensils)
- Pick up trash you see on the ground

By doing these small things, you can help keep water clean, protect animals, reduce pollution, and fight climate change!

Surfaces: Permeable or Impermeable?

PERMEABLE Surface:

It is a surface that absorbs rainwater (such as soil, grass, and plants). Water slowly seeps into the ground, and plants filter it naturally. This is excellent for removing pollution!

IMPERMEABLE Surface:

It is a surface that does **NOT** absorb water (such as concrete or asphalt). Water runs off it quickly, picking up pollutants (oil, salt, microplastics) before flowing into rivers and lakes. This can cause flooding and harm fish and animals.

That's why it's better to have more permeable surfaces in our cities!

Green Infrastructure

Green infrastructure is when we use nature and technology together to help the environment. Instead of building only with concrete, we use plants, soil, rainwater, and the sun!



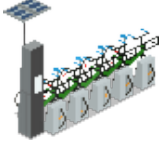




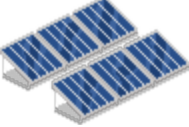
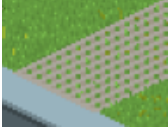
The Advantages :

- Filter rainwater
- Create homes for animals and insects
- Keep the air cool in cities
- Improve air quality

Your Mission: Compare the Two Neighborhoods!

Here are two lists of things you can find in a neighborhood. Some are good for the planet (**GREEN neighborhood**), others are not so good (**LESS GREEN neighborhood**).

| GREEN NEIGHBORHOOD 🌱 | | LESS GREEN NEIGHBORHOOD 🚧 | |
|---|---|--|--|
|  | <p>Pollinator Garden Helps bees and butterflies</p> |  | <p>Large Parking Lots Increases flooding</p> |
|  | <p>Rain Garden Filters water before it reaches rivers</p> |  | <p>Garbage Pollutes soil and water, harms animals</p> |
|  | <p>Green Roofs Absorbs water, refreshes the air</p> |  | <p>Oil Spills Toxic to plants and animals</p> |
|  | <p>Rain Collection Barrels Collect water to water plants</p> |  | <p>Construction Zones Dust and air pollution</p> |
|  | <p>Vegetable Garden Produce local food</p> |  | <p>Gasoline-Powered Cars Pollutes the air</p> |

| | | | |
|---|---|--|--|
|  | <p>Parks House for animals, fresher air</p> |  | <p>Large Buildings Uses a lot of energy</p> |
|  | <p>Bicycles No pollution, silence</p> |  | <p>Asphalt Roads Water cannot penetrate, causing flooding</p> |
|  | <p>Electric Cars Less pollution than gasoline</p> | | |
|  | <p>Bus Stops Fewer cars on the roads</p> | | |
|  | <p>Trash Cans and Recycling Bins Less waste in nature</p> | | |
|  | <p>Solar Panels Clean energy from the sun</p> | | |
|  | <p>Permeable Coating Allow water to penetrate the soil</p> | | |

Your Instructions for the Activity

This activity takes place on the Troubadour platform, an educational online game where you will build your own neighborhoods!

Before you start:

1. Log in to the Troubadour platform (we will provide you with the link).
2. Access the challenge: "The Great Green Neighborhood Duel."

STEP 1: Build a LESS GREEN neighborhood (page 1)

3. Use the table above to choose items from the "LEAST GREEN NEIGHBORHOOD" column.
4. In Troubadour, place these elements on your first page to create a less green neighborhood.
5. Examples of items to place: large parking lots, waste, oil spills, gasoline-powered cars, asphalt roads, construction sites, and large buildings.
6. **IMPORTANT:** For each item you place, add a text in Troubadour explaining why it is bad for the environment.

Example of text to add:

"I put in a large parking lot because it increases flooding—rainwater cannot be absorbed by concrete."

STEP 2: Build a GREEN neighborhood (page 2)

7. Use the table above to choose items from the “GREEN NEIGHBORHOOD” column.
8. In Troubadour, go to the second page and place these items to create your green neighborhood.
9. Examples of elements to place: pollinator garden, rain garden, green roofs, rain barrels, vegetable garden, parks, bicycles, electric cars, bus stops, trash and recycling bins, solar panels, permeable pavement
- 10. IMPORTANT: For each element you place, add text in Troubadour explaining why it is good for the environment**

Example of text to add:

“I planted a rain garden because it filters water before it reaches rivers and helps bees and butterflies.”

STEP 3: Compare your two neighborhoods

Look at your two pages in Troubadour and think about it: Which neighborhood would you prefer to live in? Why? Discuss it with your classmates!

Activity 2: Build Your Own Rain Garden!

In this activity, you will create a rain garden by choosing the right plants for the right places!

What is a Rain Garden?

A rain garden looks like an ordinary garden, but it's special! It's shaped like a small basin that collects rainwater. The soil, compost, and sand filter the water to remove pollution. Plants also help clean the water and provide food for bees and butterflies!

How should the plants be placed?

Plants must be placed in the right locations in the rain garden. Here's why:

1. Plant roots:

Roots dig small tunnels in the soil. This helps water sink into the ground instead of staying on the surface!

2. Plant height:

- TALL plants go in the CENTER (where there is more water)
- SHORT plants go on the SIDES (where it is drier)





3. What plants like:

- Some plants like to have their feet in water
- Others prefer drier soil
- Some love the sun, others prefer shade
- We often use local plants (which grow naturally here)











Plant guide for your rain garden



Here are some plants you can use to create your garden!

Plants for the FRONT of the garden (drier area):








| Image | Plant name | Preferred light | Preferred humidity | Pollinators |
|---|------------------|--------------------------|--------------------|----------------|
|  | Marsh Marigold | Partial sun and shade | Moist to wet | Flies and bees |
|  | Purple Aster | Full sun | Dry to moist | Butterflies |
|  | Creeping Juniper | Full sun and partial sun | Dry to average | None |
|  | Common Yarrow | Full sun | Dry to average | Butterflies |


Plants for the MIDDLE of the garden (more water):

| Image | Plant name | Preferred light | Preferred humidity | Pollinators |
|---|-------------------|----------------------------------|---------------------------|--------------------------------|
|  | Sensitive Fern | Full sun, partial sun, and shade | Moist | None |
|  | Soft Rush | Full sun and partial sun | Average to wet | Birds |
|  | Swamp Milkweed | Full sun and partial sun | Moist to wet | Monarch butterflies |
|  | Red Osier Dogwood | Full sun and partial sun | Average to wet | Bees, flies, and butterflies |
|  | Ostrich Fern | Partial sun and shade | Moist to wet | None |
|  | Cardinal Flower | Partial sun and shade | Moist to wet | Bees and butterflies |
|  | Water Aven | Full sun and partial sun | Moderate to wet | Bees, flies, and beetles |
|  | Blue Flag Iris | Full sun and partial sun | Average to wet | Bees |
|  | Joe-Pye Weed | Full sun and partial sun | Moist to wet | Bees, butterflies, and beetles |
|  | White Turtlehead | Partial sun and shade | Average to moist | Butterflies |




| | | | | |
|---|---------------|--------------------------|------------------|----------------------|
|  | Bee Balm | Full sun and partial sun | Average to moist | Bees and butterflies |
|  | Fox Sedge | Full sun and partial sun | Average to wet | None |
|  | Nodding Sedge | Full sun and partial sun | Average to moist | Birds |

Plants for the SIDES of the garden (medium humidity):

| Image | Plant name | Preferred light | Preferred humidity | Pollinators |
|---|-------------------|--------------------------|--------------------|----------------------|
|  | Purple Aster | Full sun | Dry to moist | Butterflies |
|  | Large Leaf Aster | Partial sun and shade | Dry to moist | Butterflies |
|  | Creeping Juniper | Full sun and partial sun | Dry to average | None |
|  | Purple Coneflower | Full sun and partial sun | Dry to average | Butterflies, birds |
|  | White Turtlehead | Partial sun and shade | Average to moist | Butterflies |
|  | Common Yarrow | Full sun | Dry to average | Butterflies |
|  | Bee Balm | Full sun and partial sun | Average to moist | Bees and butterflies |

| | | | | |
|---|------------------|--------------------------|----------------|--------------------|
|  | Fox Sedge | Full sun and partial sun | Average to wet | None |
|  | Black-eyed Susan | Full sun | Dry to moist | Butterflies, birds |

Plants for the BACK of the garden:

| Image | Plant name | Preferred light | Preferred humidity | Pollinators |
|---|-------------------|--------------------------|--------------------|--------------------------------|
|  | Purple Coneflower | Full sun and partial sun | Dry to average | Butterflies, birds |
|  | Joe-Pye Weed | Full sun and partial sun | Moist to wet | Bees, butterflies, and beetles |
|  | Red Osier Dogwood | Full sun and partial sun | Average to wet | Bees, flies, and butterflies |

Your Instructions for the Activity

This activity also takes place on the Troubadour platform. You are going to create your own rain garden!

Before you start:

1. Log in to the Troubadour platform
2. Access the challenge: "Build your own rain garden!"

STEP 1: Understand your rain garden

Remember: a rain garden is shaped like a bowl. The **CENTER** is lower and wetter. The **SIDES** are higher and drier. The **FRONT** and **BACK** have different conditions, too!

STEP 2: Place the plants in the right location

Use the tables above to help you choose the right plants:

- **At the FRONT** of the garden (drier):

Place plants such as : Joe-Pye Weed, Purple Aster, Creeping Juniper, Common Yarrow

- **In the MIDDLE** of the garden (more humid):

Place plants such as : Soft Rush, Swamp Milkweed, Red Osier Dogwood, Cardinal Flower, Blue Flag Iris, Bee Balm

- **On the SIDES** of the garden (average humidity):

Place plants such as : Purple Aster, Purple Coneflower, Common Yarrow, Bee Balm

- **At the BACK** of the garden:

Place plants such as : Purple Coneflower, Joe-Pye Weed, Red Osier Dogwood

STEP 3: Explain your choices

3. For each plant you place in Troubadour, add a text explaining:
 - Why did you choose this plant
 - What it likes (wet or dry, sun or shade)
 - What pollinator does it help (bees, butterflies, or birds)

Example of text to add:

"I planted milkweed in the middle of my garden because it likes damp places. It attracts monarch butterflies!"

STEP 4: Admire your garden!

Check out your finished rain garden in Troubadour. You've created a space that helps nature and pollinators! Well done!

Now it's your turn to create your rain garden! Have fun!