



Greenburgh Nature Center

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RECYCLING: WHERE DOES ALL THE GARBAGE GO? (K-5)

Recycling is as old as the Earth---everything in nature is constantly becoming something else and being used in new ways. We will study the lessons nature offers about how we can better deal with the growing problem of waste. In the forest, we'll learn about the soil and nature's recyclers and composters. Then, looking at samples of some typical garbage generated at schools, we'll examine how much and what kinds of waste we generate, learn how our community currently disposes of waste, and consider how humans can make choices to better fit into nature's system of interconnected cycles. (Also offered as an outreach program.)

Concepts: What is recycling?
Why recycle?

How does nature recycle?
How can we recycle in schools to create a "waste-free" lunch?

STATION 1 (INSIDE) K-5 APPROPRIATE

Powerpoint - 3 R's Reduce - less garbage
 Reuse - use an item more than once
 Recycle - turn an item into another useful item.

Vermiculture - Composting and worms

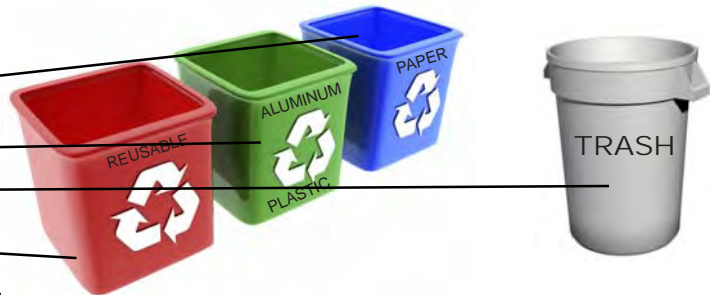
STATION 2 (OUTSIDE - FOREST)

Nature Recycles - Forest recycling (Life in a rotting log)
Water cycle - Evaporation, Condensation and Precipitation
Soil cycle - Nature's way

STATION 3 (OUTSIDE - TENT OR LAWN)

Recycle Relay - Items we use that

- Recycled - paper
- Recycled - plastic, aluminum
- Garbage
- Reusable

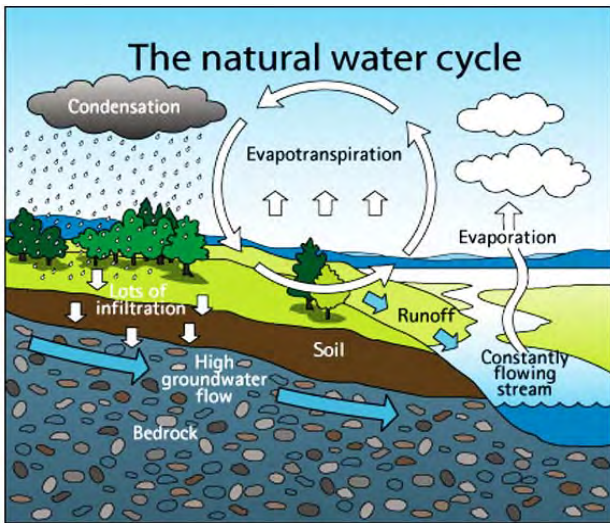


WORM COMPOSTING—OR VERMICULTURE

Worms are nature's ultimate recyclers—taking garbage in and turning out great soil. To create a worm-composting haven in a bin, you can't use just any old worms.

You need worms that are good eaters and are able to deal with the high temperatures that can be created in a compost bin. Red wigglers, which are also called red worms, are the most voracious eaters of the earthworm family. They can consume half their own weight in organic matter each day and leave behind fertile compost. Pale red, the tiny, threadlike, baby worms grow from 1/8 inch up to 4 inches long at maturity.



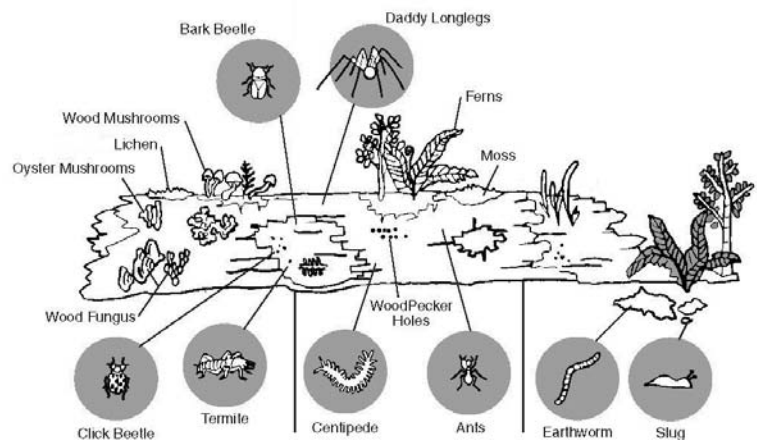


Powered by the sun's energy, water evaporates, rises, moves on the wind, condenses and falls. Landing on the forest canopy, rain splashes from leaf to leaf and runs down tree trunks to reach the ground. Some water evaporates back into the air, some runs off directly into streams and the rest gently soaks into the soil for use by the growing plants, which breathe it back into the atmosphere by transpiration. Much of the water the plants don't use slowly moves deeper into the soil, feeding streams and underground waters, which eventually reach rivers, lakes and the sea, for the cycle to start all over again.

The weathering of bedrock produces the parent material from which soils form. Dead plants and animals, dropped leaves and stems of plants fall to the surface of the soil and decompose. There, organisms like ants, woodlice and earthworms feed on them and mix the organic material with the upper soil layers; these organic compounds become part of the soil formation process.

The process of decomposition is one of the most important processes on the planet, recycling organic material to be used again.

LIFE IN A ROTTING LOG



WASTE-FREE LUNCH

A waste-free lunch program is a process of educating students, parents, and school staff about where our trash ends up and how we, as individuals, can reduce the amount of trash we generate. Waste-free lunch programs favor the use of reusable food containers, drink containers, utensils, and napkins. They discourage the use of disposable packaging, such as prepackaged foods, plastic bags, juice boxes and pouches, paper napkins, and disposable utensils

A WASTE-FREE LUNCH (REUSABLE)

- sandwiches and other main dishes, fresh fruit, fresh vegetables, and treats in a reusable lunch container
- cloth napkins
- stainless-steel forks and spoons
- reusable drink containers
- reusable lunch boxes



ON-LINE RESOURCES:

- Reduce.org - Ideas on how you can reduce at school - <http://reduce.org/school/index.html>
- Westchester County Environment and Recycling - <http://environment.westchestergov.com/>
- National Institute of Environmental Health Sciences - 3 R's for kids - <http://kids.niehs.nih.gov/recycle.htm>
- WasteFreeLunches.org - <http://www.wastefreelunches.org/>