Composting With Worms - Online

Kindergarten-3rd Grade

https://www.youtube.com/user/OregonMetroGov/playlists

After watching these videos, students will be able to:

- Describe how composting helps reduce the amount of items going to the landfill
- Name the four elements living organisms need to survive
- Identify who else lives in the worm bin
- Make observations about worm anatomy
- To identify what can and cannot go into the worm bin

Composting with Worms Episode 1: Where does our garbage go? (9:02 minutes)

Join Dr. Jamie as she figures out what happens when our garbage leaves our home. You can help her brainstorm ways to create less waste.

Post activity - Visit the live camera at the Metro South Transfer Station to see what arrived in the garbage today. What was the most common item that you see in the pit? What was the strangest item you saw in the pit? https://www.oregonmetro.gov/tools-living/garbage-and-recycling/metro-south-transfer-station/metro-south-trash-cam

Composting with Worms Episode 2: How do worms help reduce our waste? (12:08 minutes)

Dr. Jamie explains how a home worm bin can be used to 'recycle' food scraps and turn it into super dirt. Come and learn about how to create a worm habitat to complete the compost cycle!

Post activity - What are other types of cycles you have heard about or can see in your neighborhood? What items are necessary for a human habitat?

Composting with Worms Episode 3: Would you like to meet the compost critters? (9:05 minutes)

Come meet the compost critters in Dr. Jamie's worm bin. Learn how to use your science skills to observe and make a hypothesis on a worm questions – how can you tell the head from the tail of a worm?

Post activity - Draw or write down your observations of the compost critters. What are your guesses or hypotheses of how to tell the head from the tail of a worm?

Composting with Worms Episode 4: Do you know how to find the head of a worm? (13:24 minutes)

Dr. Jamie and her worm friend will teach you all about the different parts of a red wiggler and how to know what food to put in a worm bin. Test your worm scientist skills after the video by turning off the volume and teach your adult or siblings how to tell the head from the tail of a worm using the worm bin videos.

For worm worksheets, please download them from this Google folder:
https://drive.google.com/open?id=1-B5bD5BB-l2ywC33k0LGn6Ll_pnkeNn3

Next Generation Science Standards

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change and define a simple problem that can be solved through the development of a new or improved object or tool.
- 1-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change and define a simple problem that can be solved through the development of a new or improved object or tool.
- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- 2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change and define a simple problem that can be solved through the development of a new or improved object or tool.
- 3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- 3-LS3-1: Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- 3-LS4-2: Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.
- 3-LS4-3: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 3-LS4-4: Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
- 3-ETS1-2. Generate and compare multiple solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

English Language Arts Standards

- CCSS.ELA.Literacy.SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- CCAA.ELA-Literacy.W.2.8 - Recall information from experiences or gather information from provided sources to answer a question.

Oregon Social Studies Standards

- Civics and Government: SS.03.CG.03 - Identify ways that people can participate in their communities and the responsibilities of participation

National Education for Sustainability K-12 Students Learning Standards

- 2.1 Interconnectedness - Sense of Place: Students demonstrate an understanding of place - the natural systems and cycles, the human/cultural context and the connections between both.
- 2.2 Ecological Systems - Plants, animals, habitats: Students identify food/energy, water, shelter as basic needs of animals and plants.
- 3.1 Personal Action - Making a difference: students understand that everyone has the ability to affect change or impact a system, community and self.

If you have any questions, please contact Jamie.repasky@oregonmetro.gov