



American Heart Association®

Teaching Gardens®

Grade Band

4-5

Time

20 minutes

Season

Any

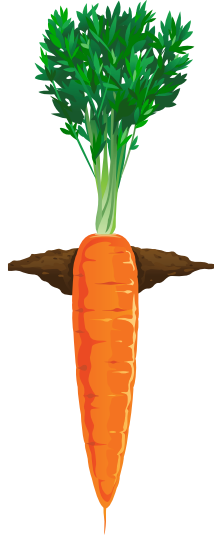
Location

Indoors or Outdoors

From Compost to Carrot Sticks

Description:

In this activity, students sequence a set of images to tell the story of how compost enriches soil, food grows in soil, and food waste is returned to the compost in a food-compost cycle.



Materials:

- 1 set of Compost to Carrot Sticks cards for each group of 8 students
- Optional: Enough carrot sticks for the entire class, and a dip such as hummus

Preparation:

- Cut apart the Compost to Carrot Sticks cards, creating 1 full set for each group of 8 students.

Activity:

- 1. Preview the Sequencing Activity:** Build student anticipation for the activity ahead. *Today, I'm going to give your team some pictures, and you are going to work together to use the pictures to tell a story! All of the pictures you'll get tell the story of where carrot sticks come from!*
- 2. Explain and Demonstrate the Sequencing Activity:** *When your team gets your card set, you'll lay all of the cards out and work together to put them into an order to tell the story of where carrot sticks come from. Emphasize: There is not just one right way to order these cards! In fact, there are a lot of ways you*

Connections to Content Standards:

NGSS Disciplinary Core Ideas:

LS2.A: Interdependent Relationships in Ecosystems

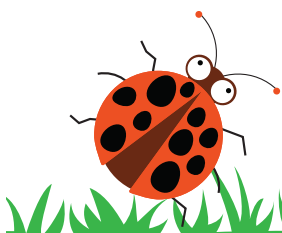
The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as "decomposers." Decomposition eventually restores (recycles) some materials back to the soil.

LS2.B: Cycles of Matter and Energy Transfer in Ecosystems Matter

Cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment.

NGSS Crosscutting Concept: Energy and Matter: Flows, Cycles, and Conservation

NGSS Science and Engineering Practice: Developing and Using Models



From Compost to Carrot Sticks, *continued*

might use the cards to tell the story. Take a set of cards out and demonstrate, laying them out and then sequencing two cards, thinking aloud as you go. Okay, I'm going to put this carrot seed next to the soil, because I know that carrot seeds grow in the soil.

- 3. Sequencing Activity:** Distribute card sets and give student teams time to work together to sequence their cards.
- 4. Share Out:** As teams finish, invite them to look at the work of other teams to compare, checking to see if they had the same idea or different ideas from other teams. Remind them that there are many correct ways to tell the story. When all teams have finished, invite a representative from each team to tell their story to the class. If any teams put the pictures in a circle, use that as an opportunity to highlight the cycle: from compost to soil to food, and back to compost. If students didn't make a circle, challenge them to figure out how they might sequence the images in a circle to represent this cycle.
- 5. Wrap Up:** Have students discuss in pairs, and then with the whole class, *Which came first: the carrot or the compost?* Accept all answers. Ask your students, *If you could title this story, what would you call it?* Accept all answers.
- 6. Optional – Enjoy some carrot sticks!** If you have some carrot sticks, celebrate together by enjoying them, with or without some dip. Compost any parts you don't eat.



From Compost to Carrot Sticks: Cards



Compost

Soil

Carrot Seed

Carrot Growing (growing in the soil with tops and bottoms showing)

Carrot in a Grocery Store (without top, like you'd see in a grocery store)

Carrot Tops

Carrot Sticks

Worm

