



Category	Grade	Description
Math	2nd grade	* Digging your Garden Bed
	2nd grade	* Temperature Hunt and Sunlight Watch
	2nd grade	Making Good Soil
	3rd grade	Garden Dimensions and Planning
	3rd grade	Graphing Plant Growth & Sunlight/estimating
Science	2nd grade	* Digging your Garden Bed
	2nd grade	* Temperature Hunt and Sunlight Watch
	2nd - 8th grade	Compost Cooking
	2nd grade	Full Circle Terrariums
	3rd grade	Thirsty Plants
	3rd grade	Soil Testing
	3rd grade	* Exploring the Fragrant Garden
	All grades	** I Spy Trail, Working Together
	5th - 7th grades	• Seeds of Conflict: Students Research Genetically Modified Organisms (GMO's)
History	2nd grade	You Say Potato, I Say Patata
	2nd grade	The power of Fire
	3rd grade	Three Sisters
	3rd grade	Water Delivery Systems (aqueducts, wells, and modern day hoses and sprinklers)
	5th, 6th grade	The Amish: An Agrarian Community in Modern Times How is this possible?
	Art	2nd grade
2nd grade		The Beauty of Soil
3rd grade		Finding Green in the Garden
3rd grade		Making your Garden Path
Social Studies		2nd grade
	3rd grade	Planting by the Moon
	3rd grad	You Are What You Eat
	5th , 6th grade	The Amish: An Agrarian Community in Modern Times How is this possible?
	5th - 7th grades	• Seeds of Conflict: Students Research Genetically Modified Organisms
	3rd grade	Winter Recipe

* This is a cross curricular lesson plan.

** This lesson is for all ages.



Category	Grade	Description
Language Arts		
	2nd grade	Haiku in the Garden
	2nd grade	The "Dream" Garden
	2nd grade	Seasonal Collection, Plant, Animal or Mineral
	3rd grade	* Exploring the Fragrant Garden
	3rd grad	Inspector Detector (riddles of Who Am I?)
	5th ,6th grade	The Amish: An Agrarian Community in Modern Times How is this possible?
	5th - 7th grades	• Seeds of Conflict: Students Research Genetically Modified Organisms (GMO's)
	6th - 8th grades	Found Poem: Can You Find A Poem in a Garden?
Health and Nutrition		
	2nd grade	Nutritious Foods Keep Me Healthy
	2nd grade	There's a Balloon in my Backpack!
	3rd grade	Get Moving!
	3rd grade	Winter Recipe

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Compost Cooking

To Grow Healthy Vegetables, You Need Healthy Soil

Teacher Background Information Composting is an integral part of a healthy garden. A great way to prepare the soil for planting. Composting will take about 3 - 12 months and can be visited regularly.

Description We examine the nutrient cycle and decomposition.
This is a great project for the fall when there are lots of leaves on the ground. Students can also bring materials from home like kitchen food scraps, coffee grounds, and black-and-white newspaper. (No meat or chicken.)

Objectives Start a compost pile at your school and add to it regularly from your cafeteria leftovers and food scraps. Implement "compost days" at school where students bring materials from home. Demonstrate cycles and changes in the earth.

Preparation & Materials Needed Find a spot close to the garden with lots of sun (it will help the cooking). It needs to be about 4 square feet (2 x 2).

Spades
Shovels
Yard or Meter Stick
Hose or Watering can
Compost materials from cafeteria or home
Soil
Science Journals

Student letter asking for compost material from home to create compost pile at school. Green/nitrogen is lawn clipping and weeds. Brown/carbon is dried matter like leaves and small branches.

Students can also bring materials from home like kitchen food scraps, coffee grounds, and black-and-white newspaper. (No meat or chicken.)

Students can also get material from local restaurants and grocery stores. (You can discuss the trash-to-treasure idea.)

Demonstrate samples of brown and green.

Find your compost pile spot (best in sunlight).

Class Discussion Everytime we make a withdrawal from the soil (harvest) we have to replace it with healthy compost. This is also a great way to prepare the soil for planting. The nutrient cycle is part of the earth: things grow, things die, they decompose, making healthy soil, and become food for other plants, that grow again. (Could draw this on the board, asking students for examples.)

Compost is organic matter that is added to soil for plants to thrive.

It is NUTRIENT RICH.

A compost pile is BROWN + GREEN + SOIL + AIR + WATER

Activity Dig in your 2 x 2 area and loosen the dirt where the compost pile will be. Stress the importance of ingredients, and the size of the material that will be added. The smaller the better. The shape of the compost pile is important. Because it is layered it will begin to cook, so it has to be a mound. Measure the dimensions at the beginning of the compost pile. Width, length and height. Visit weekly and record in science journal. You will be adding continually, but as it decomposes it will shrink. Why do you think that happens?

Have students break it into three parts plus the waterer.

Add layers

Brown patches

Green patches

Soil 1-2 inches

Water each layer as it is put down.

The heat needs to start in the center of the pile so shape is important.

The pile should be the consistency of a squeezed-out sponge. If it's too wet, add more dry things like leaves or straw to soak it up. The whole process takes 3 -12 months depending on the materials in the pile.

Turn your pile every week if you can and pull the outside material to inside, the bottom material to the top.

If the pile gets smelly add more soil.

Wrap Up Ask students what they think will happen by next month?

What do you think it will look like?

What do you think it will smell like?

What do you think it will feel like?

How do we know if it is decomposing?

More Check the pile and take temperature every month

Students can start a fast decomposing pile and a slow decomposing pile with different materials. Decomposition creates heat because millions of organisms are eating their way through the pile. The heat is the cooking and speeds up the decomposition.

Bury 3 materials to study how they decompose:

One plastic or Styrofoam or metal, one bread, one fruit or vegetable.

Dig them up every week and look at them. Describe them in your science journal.