



OUTDOORS ✿ GRADES 4-6 ✿ FALL, SPRING ✿ PROJECT

What's in a Name?

DESCRIPTION

Students grow different varieties of the same crop to test their suitability to the school's garden soil and climate.

OBJECTIVE

To discover that there are many varieties of each vegetable.

TEACHER BACKGROUND

Varieties are bred by plant scientists working for seed companies and are developed for their different characteristics. Some tomatoes, for example, make big fruits; some resist pests and diseases; some do well in certain climates and poorly in others; some grow longer, shorter, rounder, firmer, redder, bigger, faster, and so on. Many varieties are hybrids and do not reproduce the same seed from season to season. But you can save the seeds of nonhybrid varieties and develop seeds that are especially well-suited to your garden.

MATERIALS

- ✿ What's in a Name? Lab Sheet, 1 per student, page 429
- ✿ a dug and fertilized garden bed
- ✿ different varieties of one particular vegetable such as carrots or lettuce
- ✿ science journals

PREPARATION

Prepare a garden bed for planting.

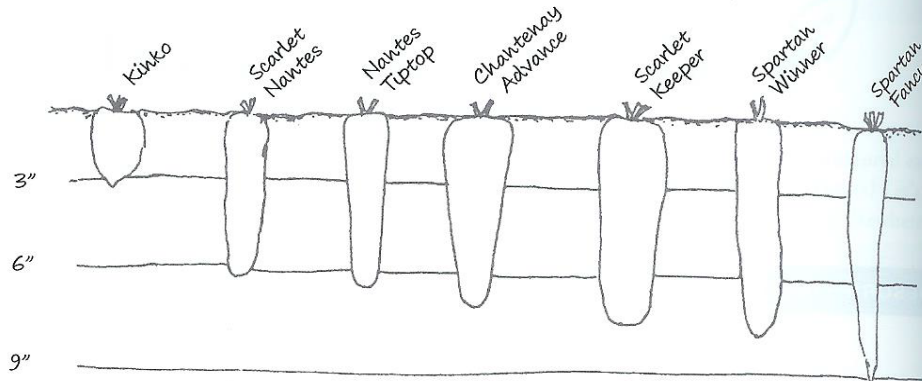
CLASS DISCUSSION

Picture a lettuce plant. What types of lettuce have you seen? More than one image should come to mind, because there are many different types of lettuce! Some have dark green leaves and some have red leaves; some have curly leaves and some have long, straight leaves; some taste sweet; some are crunchy. These different types of lettuce are called varieties. Just as two sisters are closely related but different, so there are different varieties of each vegetable. Do you think some varieties may taste better than others? Would they grow better in our soil than others? Let's find out if certain vegetable varieties are better for our climate and soil than others.

ACTION

1. Have students divide a garden bed or planter box into several equal sections and sow or transplant each section with one variety of one particular vegetable (for example, each section is a different type of lettuce). Have them label each section with variety name and date planted, and water well.
2. Have students read the information on the seed packets and record their predictions about which variety will grow the best, taste the best, be the tallest, be the quickest to harvest, and so on.

BASIC CARROT SHAPES AND LENGTHS



3. Have students treat all the varieties exactly the same: thin plants at the same time if necessary, water the plants the same amount, and so on.
4. Have students make weekly observations and record all the information on charts.
5. When students harvest the crop, have a tasting party.

# GERMINATED				PEST DAMAGE (SCALE 0-5)				ROOT LENGTH IN INCHES				TASTE (SCALE 0-5)			
A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D

CARROTS: NANTES = A CORELESS = C HALFLONG = B LONG = D

WRAP UP

Which variety produced the most? Which grew the most? Which tasted the best? Which factor is the most important? Is it better to have short, sweet carrots or long, bland ones? Which would you rather grow if you were a farmer? (*Ask the class to vote on the best variety.*) Would this variety necessarily be the best to grow no matter where you live? Why might another variety do better somewhere else? (*different climate, different soil, shorter or longer growing season*)

DIGGING DEEPER

1. Have one student in the class call your local Agricultural Extension Agent and ask for a list of recommended vegetable varieties for your area. (*Did they pick the same vegetable variety that your class did?*)
2. Become plant breeders. Plant nonhybrid varieties and save seeds of the plant that grows the best. Continue from season to season until you have developed a seed especially suited to your garden.