

**DIG
IT**

VEGETABLES



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

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Parts of a Plant

Plants have many parts that help them survive, grow, and reproduce:

Roots hold the plant in the ground and absorb water and nutrients from the soil.

Stems keep the plant upright and carry water and nutrients to the leaves.

Leaves grow from the stem and soak up sunlight to make food for the plant.

Flowers contain pollen that will help make seeds. Flowers are often pretty to attract animals and insects.

Fruit comes from the flower and has seeds. They are often tasty to animals, who help move the seeds from place to place.

Seeds are how a plant begins and grows into a new plant. Seeds can be big or small.

What Plant Parts Will YOU Eat?

Roots: carrot, radish, beet

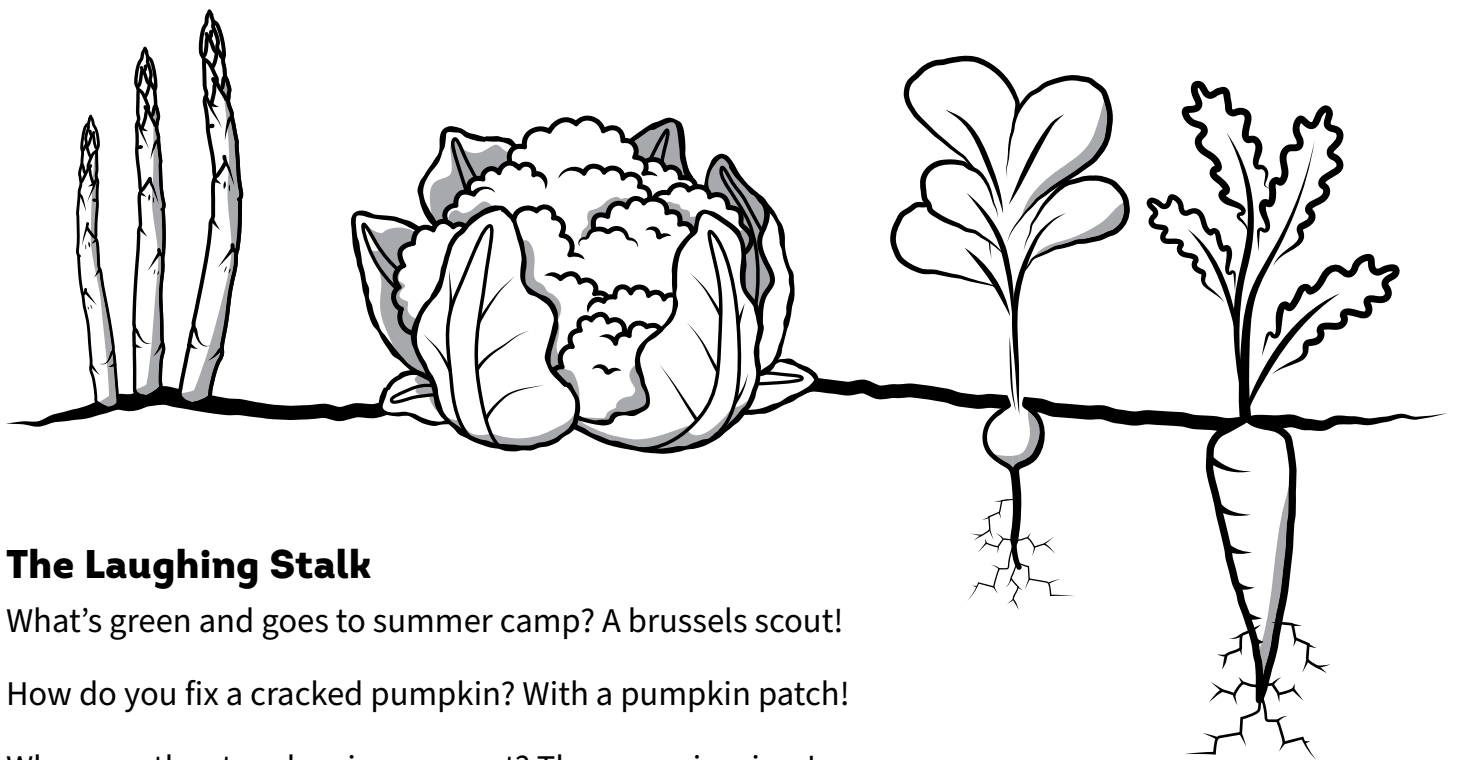
Flowers: broccoli, cauliflower

Stems: celery, asparagus, potato

Fruits: watermelon, tomato, pepper

Leaves: lettuce, spinach, greens

Seeds: corn, wheat, sunflower seed



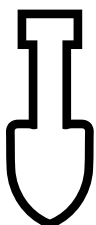
The Laughing Stalk

What's green and goes to summer camp? A brussels scout!

How do you fix a cracked pumpkin? With a pumpkin patch!

Why were the strawberries so upset? They were in a jam!

Why shouldn't you tell secrets in a cornfield? Because there are too many ears!



Dig Deeper

List all the ingredients you like on pizza, then circle the ones that come from plants. Finally, label each circled ingredient as root, stem, leaf, flower, fruit, or seed. Don't forget the seasonings and pepper flakes!

Garden in a Glove

Vocabulary:

Germination — To begin to grow (sprout).

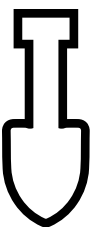
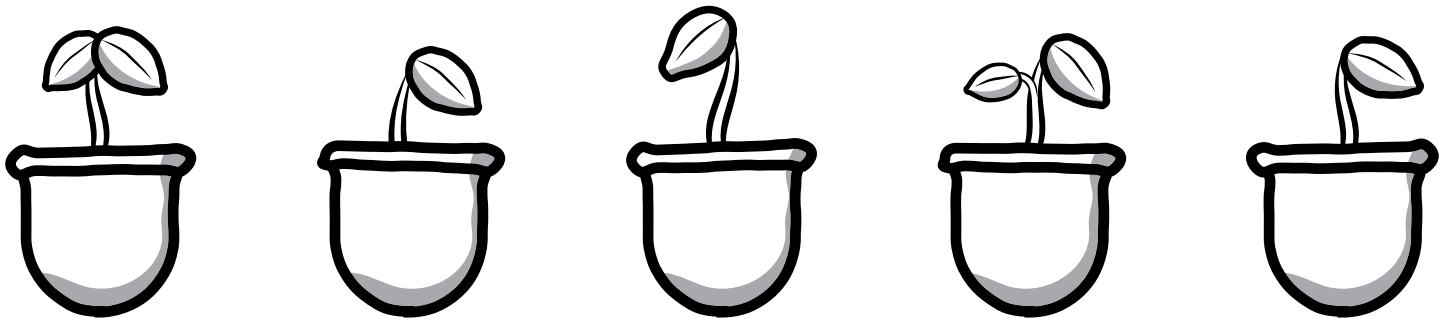
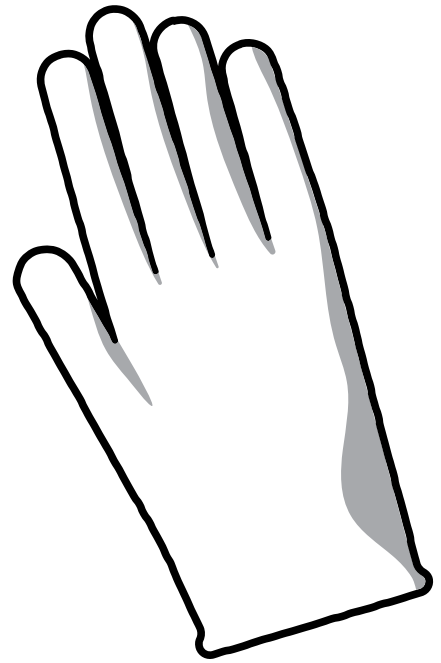
Transplant — To remove and plant in another place.

Materials:

- Clear plastic glove
- 5 cotton balls
- 5 types of seeds, 3 or 4 seeds of each. Example: lettuce, carrots, cucumber, tomato, broccoli
- Pencil
- Water
- Marker

Directions:

1. Write your name on the clear plastic glove.
2. Wet the five (5) cotton balls and squeeze them out.
3. Place three (3) or four (4) seeds of each type on each cotton ball. Keep track of which seed is in which finger.
4. Use a pencil to push the cotton ball to the tip of the glove fingers.
5. Gently blow the plastic bag up & close with a twist tie.
6. Tape the glove to a window.
7. Seeds will germinate in 3 to 5 days. Keep a plant diary.
8. Transplant seeds about 1½ to 2 weeks. Cut the fingertips off the glove. Transplant the cotton ball and small plants into potting soil.
9. Enjoy watching your plants grow.



Dig Deeper

1. Calculate the germination rate.
2. Divide the number of plants by the number of seeds planted.
Example: Two plants sprouted divided by four seeds planted
3. Multiply by 100 to get percentage: $2 / 4 = 0.5 \times 100 = 50\%$
Germination rate equals 50% or 1/2 of the seeds planted sprouted.

What Do Plants Need to Grow?

Plants are so important. They give us oxygen and food to eat. What do we need to give plants to help them grow?

Light: The sun provides energy for the plant to make food through photosynthesis.

Air: Plants “breathe in” our carbon dioxide through their leaves and “breathe out” oxygen for us.

Water: This keeps the plant from drying out and getting crispy. It also helps to take up nutrients from the soil and use them to make food for the plant.

Soil: It holds the plants in place, so they do not fall over, and it also gives plants nutrients to grow big and strong.

Circle Four Things Plants Need to Grow



Make a Grow Bracelet to Remind You What Plants Need to Grow

Add beads to a pipe cleaner and twist it into a bracelet when finished.

Yellow = Sun

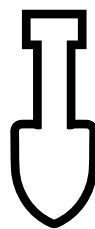
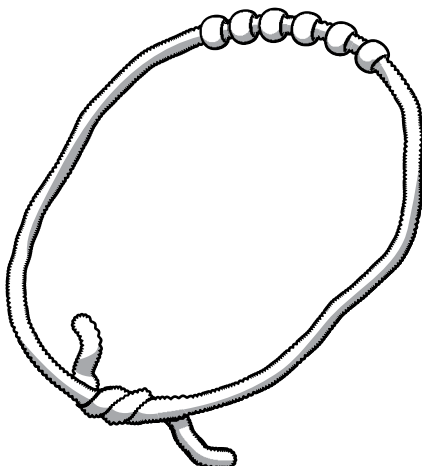
Clear = Air
(Carbon Dioxide)

Brown = Soil
and Nutrients

Green = Plants

Blue = Water

Red = Care from YOU



Dig Deeper

Set up an experiment with four containers and any type of seed.

1. Plant one in soil that does not get watered.
2. Plant one seed in soil covered with black paper to block sunlight or put in a dark place and water as needed.
3. Plant one seed in a container without soil, but give daily sunlight and water as needed.
4. Plant one seed in soil, in sunlight, and give water as needed.

Watch the seeds every day and journal what you see each day. Did some seeds grow better than others? Why do you think this happened?

You can grow vegetables in lots of different ways. One way is in a pot. Growing vegetables in a pot can be much different than growing in the ground.

Things you'll need:

A pot. This is a container that will be your garden. Make sure there are holes in the bottom for water to drain out. You can use other containers too, just make sure they're safe for food and have holes in the bottom.

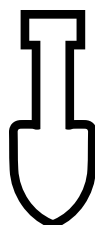
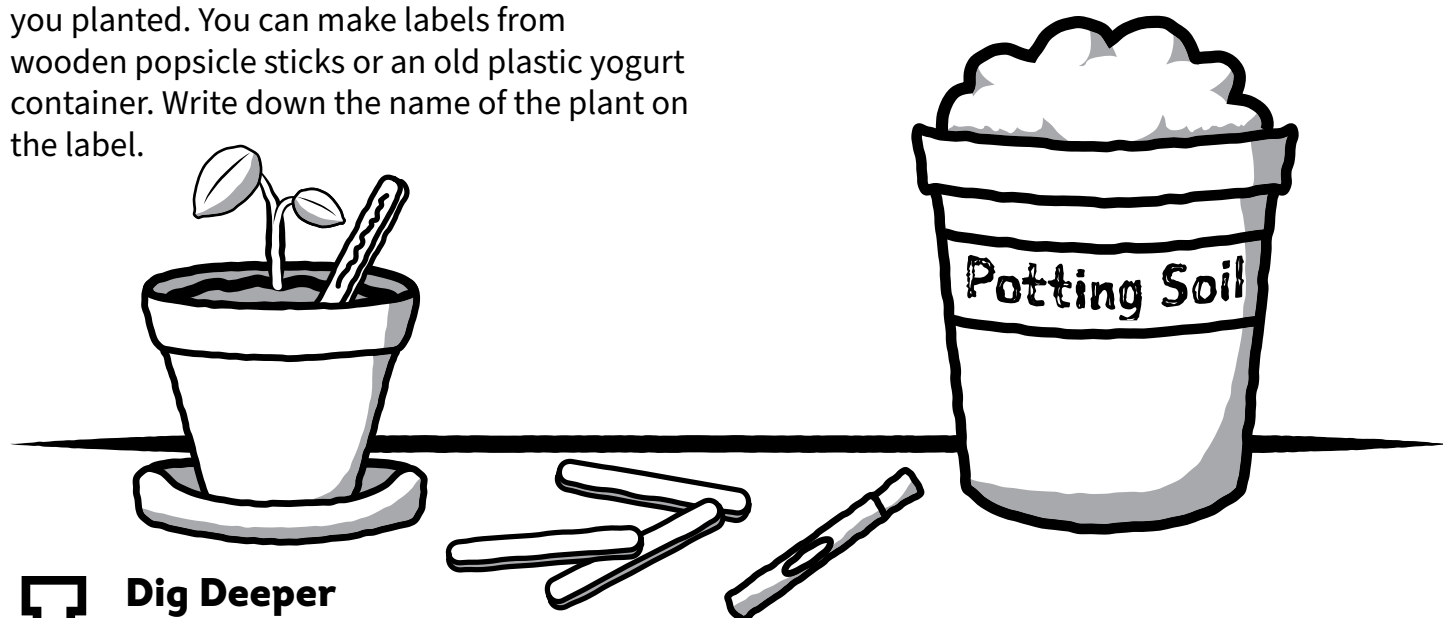
Potting mix. No, this isn't dirt. This is a soil-free mix. It is very lightweight. Some potting mix is even made from coconuts.

Seed or plants. You can plant seeds or buy plants to plant in your pot. Read the instructions that come with your seeds or plants. It may help to have a grown-up make sure you don't put too much in the pot.

A marker and label. It helps to label the plants in your pot so you don't forget what you planted. You can make labels from wooden popsicle sticks or an old plastic yogurt container. Write down the name of the plant on the label.

Start Growing Vegetables

- Fill your pot with potting soil and push down to make it firm. Plant your vegetable seeds by poking small holes with a pencil. Use your hands to make a larger hole if you are planting plants.
- Make sure to water your pot of vegetables. Remember, if the pot stays too wet, the plants could rot. If the pot is too dry, the plants may wilt. Putting a saucer under your pot can protect the surface where your pot will sit. Make sure to dump out any extra water in the saucer.
- Most vegetables like to have lots of sun. The neat thing about pots is you can move them around the house and yard to give your plants the best spot to grow.



Dig Deeper

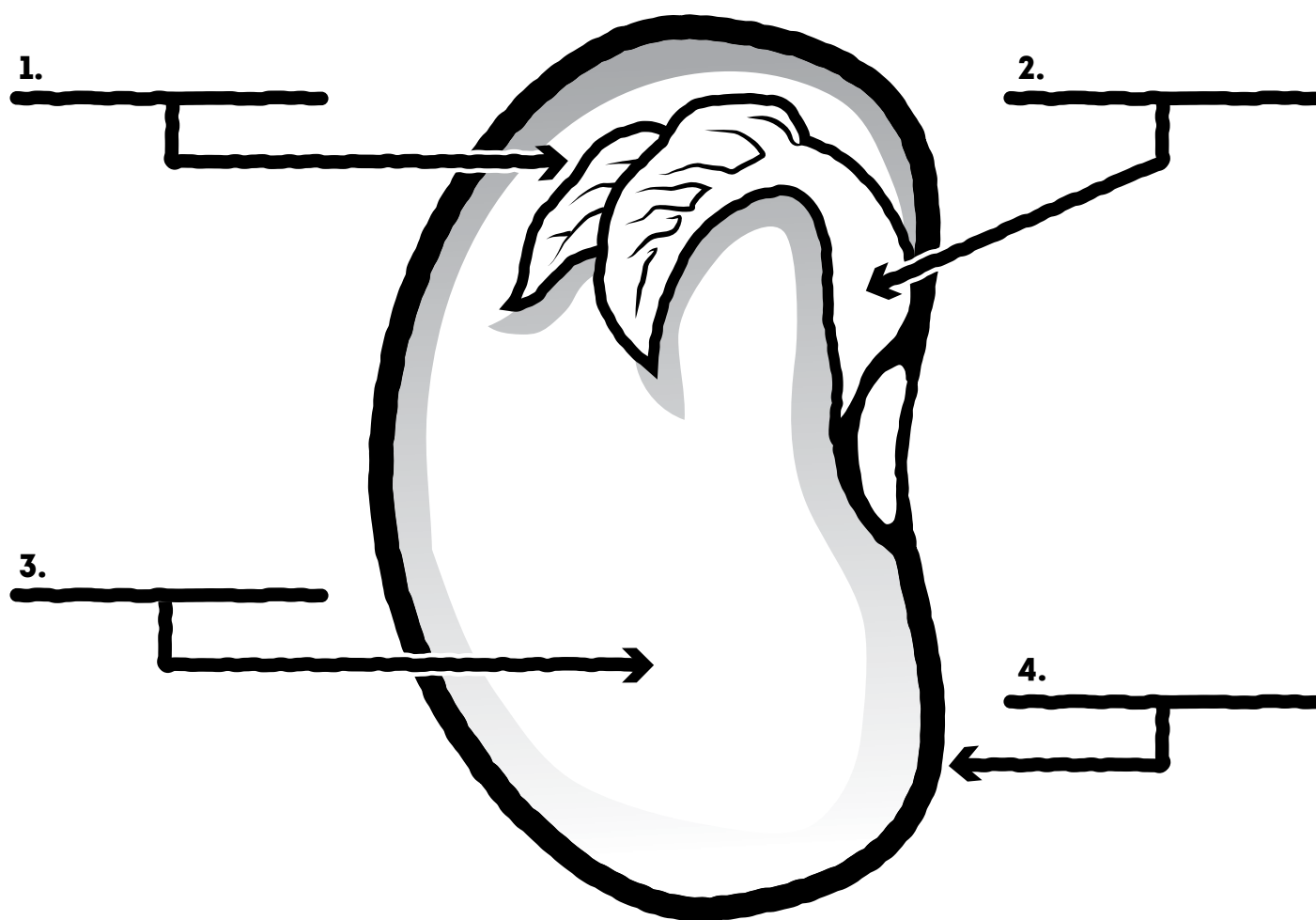
Look closely at your potting mix. Do you see lots of different things? What are those small, round, white things? It is not foam. It is called perlite, which is made from sand (silica). It takes very hot temperatures to make perlite. They place the sand in special ovens, and once it gets so hot, the sand pops like a piece of popcorn. The perlite keeps the potting mix lightweight and helps water drain through the pot.

What is Inside a Seed?

Soak a dried lima bean in water for 2 hours and then dissect the seed and discover the parts.

Word Bank

Seed Coat	Leaves
Root	Food



Answer Key:
1. Leaves
2. Root
3. Food
4. Seed Coat

Eat a Rainbow of Vegetables

Vegetables come in all different colors. Where do these different colors come from, and does the color of vegetables make them better for your body?

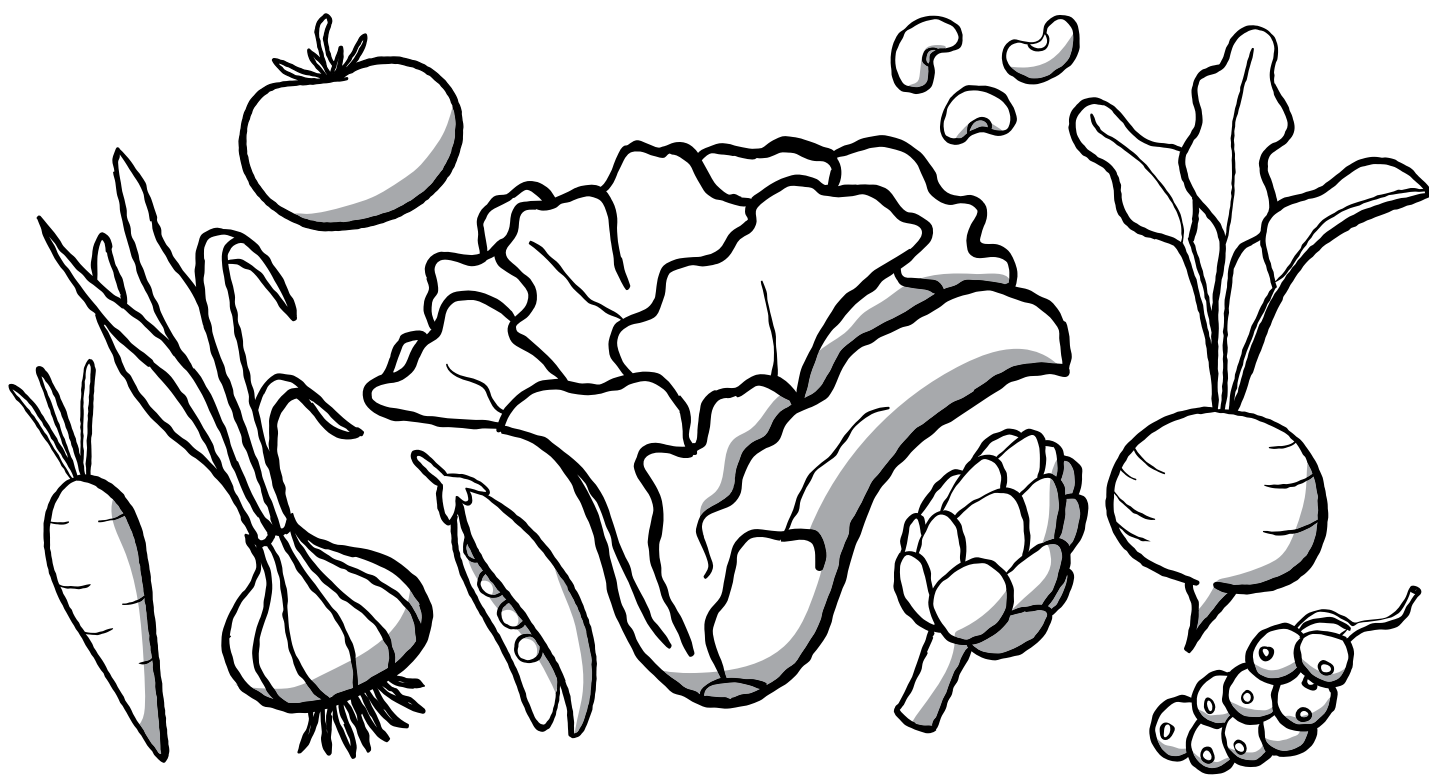
Green — When you eat green vegetables, you're eating a lot of chlorophyll, which is a very important pigment (color) for all living things. Chlorophyll absorbs sunlight and is what plants use to make their food, and also the oxygen we breathe. Chlorophyll is healthy for humans, too. Green vegetables are good for our hearts and have Vitamin K, plus lots of other nutrients like potassium. Examples of green vegetables are spinach, lettuce, celery, and broccoli.

Purple, blue, and red — When you eat purple cabbage, you're eating a plant pigment called anthocyanin (an·thow·sai·uh·nin). The colors purple, blue, and red are what the plants use to protect themselves by warding off disease or hungry insects, and help prevent cold weather damage. Fortunately, many of the colorful veggies are good to eat and help us fight off

disease, too, and even help our muscles heal. Get a dose of anthocyanins by eating eggplant, red onion, beets, purple potatoes, purple tomatoes, and black beans. Fruits that contain anthocyanins include red grapes, blueberries, raspberries, strawberries.

Orange, yellow, and red — Brightly colored vegetables pack a lot of healthy nutrients. They get their color from a group of pigments called carotenoids (kr·aa·tuh·noyds). Eating bright-colored vegetables gives your body Vitamin A, which helps improve vision and eye health. These amazing vegetables are also good for your heart, brain, skin, and fighting disease. Carotenoids are found in nearly every vegetable, even if they aren't orange, yellow, or red, but some contain even more, like carrots, pumpkins, butternut squash, orange peppers, tomatoes, corn, and watermelon.

No matter the color, all fruits and vegetables contain nutrients your body needs. Remember to eat a nutritious rainbow of colors every day.

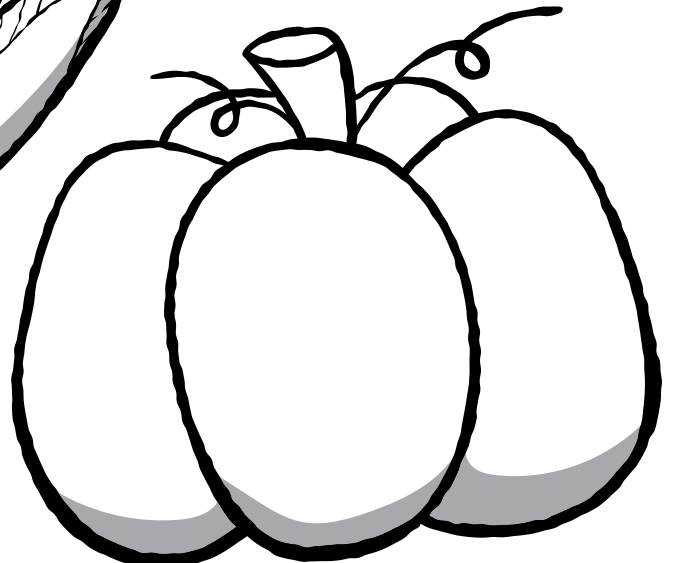
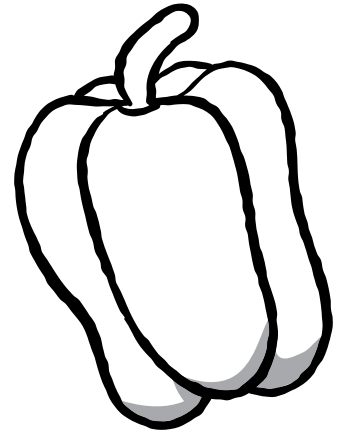
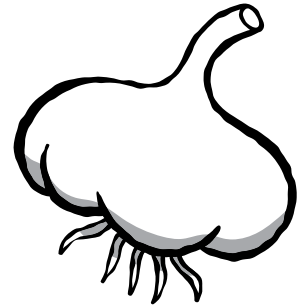
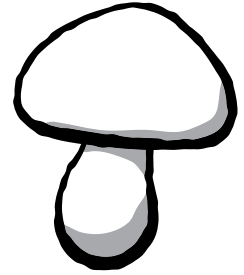
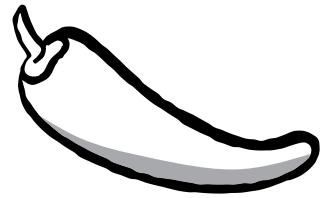


Vegetable Word Search

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P	P	C	J	L	E	A	V	E	S
P	A	A	S	P	I	N	A	C	H
E	R	R	P	O	T	A	T	O	K
R	A	R	O	D	S	T	E	M	S
B	G	O	J	D	V	M	V	X	R
E	U	T	R	O	O	T	S	K	U
E	S	B	R	O	C	C	O	L	I
T	P	M	F	L	O	W	E	R	L

ROOTS
CARROT
BEET
STEMS
ASPARAGUS
POTATO

LEAVES
SPINACH
FLOWER
BROCCOLI
TOMATO
PEPPER

[illegible]