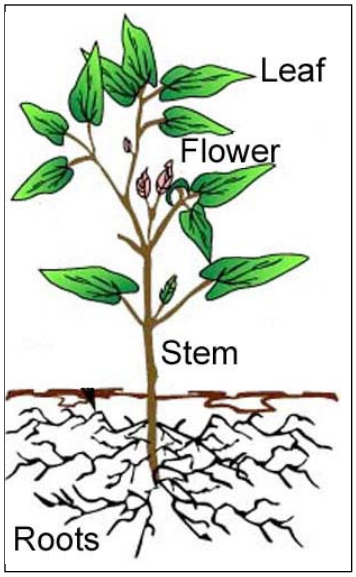
ACTIVITIES FOR "GROW YOUR OWN"

THEME: *Tom Chapin's song "Grow Your Own" tells us that we can all be gardeners. It doesn't matter how old you are or where you live. With just a few basic items, you can grow your own. Give it a try!*

PLANT LIFE CYCLE: A life cycle shows how a living thing grows, changes, and reproduces itself.

Start with a seed. Where do seeds come from? Yes, you can buy them in a store in a little package. But seeds come from the fruit of the plant. Plants can also grow from cuttings, bulbs, tuber pieces, or runners.



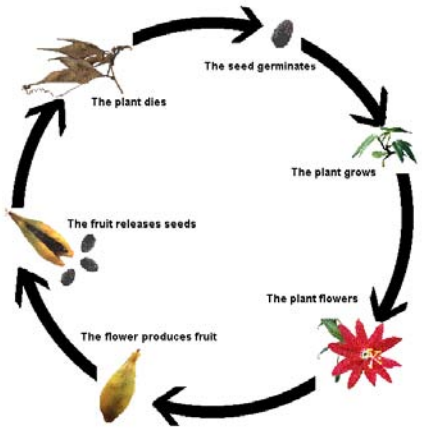
The Seed Germinates: When a seed germinates, a small root begins to grow downward and a shoot grows upward.

The Plant Grows: When the shoot breaks the surface, the plant is called a sprout. The sprout uses water and nutrients from the soil along with sunlight and air to grow and change into a seedling.

The Plant Flowers: When the plant reaches maturity, flowers will form. The flower is different for each plant, yet all contain the same basic parts. Most flowers use color and scent to attract insects to help them pollinate.

The Flower Produces Fruit: After flowers are pollinated, they enlarge and turn into fruit with seeds inside.

The Fruit Releases Seeds: When the new seeds are ready, they will be released back out into nature. For some plants, this means dropping fruit onto the ground to rot or be eaten by animals. Other plants release their seeds in unique ways, such as being blown by wind or by sticking to animal fur. Because there are so many threats to both seeds and seedlings, a plant will often produce large amounts of seeds to insure some will survive.



The Plant Dies: The dead plant matter will provide many useful vitamins and nutrients for the next plant to take its place.

Seed Again: At this point the cycle begins again, with a small seed finding its way into the ground. This seed will sprout and grow into a new plant that looks exactly like its parent plant.

ACTIVITIES FOR "GROW YOUR OWN" (continued)

FIELD TRIP: Go to the Farmer's Market with the following shopping list: 2 avocados, onion, tomato, garlic, lime. This is enough for 16 servings. The class will be making guacamole!!

COOKING: Chop the onion and tomato, and mince the garlic (be sure to have a grownup do this). Peel and mash the avocados in a medium sized bowl. (Be sure to save the pits). Stir in onion, garlic, tomato, lime juice, salt and pepper. Season with remaining lime juice and salt and pepper to taste. Chill for half an hour to blend flavors. Buy or make chips. Enjoy!

GROW YOUR OWN: To grow an avocado plant, you will need: an avocado pit, toothpicks, a glass or jar, and water.

Step 1: Clean and dry the pit gently, leaving the brown outer layer intact.
Step 2: Take the toothpicks and insert them partway into the pit.
Step 3: Fill the glass with water, until about half of the pit is submerged.
Step 4: Place the glass on a windowsill in indirect sunlight.
Step 5: Watch the plant every day, and keep a journal of how it changes. In a few weeks, roots and a stem will sprout. Once it reaches 6 inches, cut it back by half. The roots will get thicker and the stem stronger.
Step 6: Once the sprout has grown back to about 6 inches, it's time to transplant it to a pot, or outdoors if you live in a warm climate. With proper care, an avocado tree can grow as high as 40 feet tall.

You may also want to plant some onion, garlic, tomato, and lime - everything you need to make your very own guacamole!

ACTIVITIES FOR "GROW YOUR OWN" (continued)

OTHER USES FOR PLANTS: Everyone knows that things we grow are good to eat. But plants provide us with much more than just nourishment. See how many you can think of. Here are just a few examples:

Medicine: Plants have formed the basis of traditional medicine for thousands of years. Ginger settles an upset stomach. Peppermint can be used to treat digestive symptoms, migraines or as an antibacterial agent. Aloe takes the sting out of bug bites, cuts, wounds and burns.

Clothing: Since ancient times, people have been using the fibers of plants to make cloth. Cotton, linen, bamboo and hemp fibers are often used.

Dye: Dying with plants is an ancient art. Dyes made from flowers, fruits, and leaves of garden plants and wildflowers create unique, mellow colors. Onion skin and carrot roots make orange, beets and dandelion roots make red, grapes and cherry roots make purple, spinach leaves and black-eyed susans make green.

Art: Many craft projects can be made with all parts of the plant.

Preventing Soil Erosion: The root systems of plants and trees hold the soil together and help to prevent it from flowing away during heavy rains and droughts.

Musical Instruments: Didjeridoos are made of eucalyptus or bamboo. Drums were originally made from gourds.

From Trees we get wood and paper, baseball bats and boats and pencils. They are used to make toothpaste, shoe polish, chewing gum and cork.

Cosmetics: Botanicals have been used for millions of years by all cultures for cosmetic treatments. Many plants safely treat dry and irritated skin.

Potpourri: Drying out fruit and flower blossoms make a beautiful, fresh and natural way to perfume the air. Placed near a heat source, the perfume will expand in the warm air and fill the room with fragrance.

Soap: Soap can be made from oils that are extracted from various plants. Essential oils are often very fragrant, and carry other powerful properties like treating fungal infections and rashes, repelling insects, and others have a calming effect.

Photosynthesis is a process in which green plants use energy from the sun to transform water, carbon dioxide, and minerals into oxygen and organic compounds. Photosynthesis provides us with most of the oxygen we need in order to breathe. We, in turn, exhale the carbon dioxide needed by plants. It is one example of how people and plants are dependent on each other in sustaining life.

Ask each student to go home and find 5 things in their home that were made from things that grew in the ground.

ACTIVITIES FOR "GROW YOUR OWN" (continued)

MORE GROWING: Start by purchasing some seeds, such as lima beans. Soak the lima beans overnight in cold water to help start germination. Place them in a baggie with a wet paper towel. Leave some air inside the bag to aid in the germination process. Place the sealed bag on a windowsill to allow the beans to stay warm and receive plenty of sunlight. Within two or three days, the seeds will begin to sprout, and students can plant them (sprout side down) in some potting soil (about ¾ inch deep). By allowing them to sprout before planting, the seeds will grow faster. How exciting it is to see the first green shoots begin to pop out of the soil! Students can investigate how different variables affect plant growth, such as amounts of sunlight, water, and fertilizer.

Try planting popcorn kernels in a clear plastic cup. Roll up a paper towel and place it inside a clear plastic cup, making sure the towel lays against the sides of the cup with a hollow space in the middle. Put soil in the cup, in the space inside the rolled paper towel, so that it pushes the paper towel against the sides of the cup. Put about 3 kernels in each cup, point side down, between the paper cup and the towel. Water and watch.

PLAY WITH YOUR FOOD: Food is delicious and nutritious, healthy and necessary. But it can also be fun. Pictured are fruit and veggie faces with dip, and apple lips with mini-marshmallow teeth. The teacher may want to make a list of food items they can use. Have each child make a drawing of a food creature, made entirely of different types of food. Have the class vote to choose the class favorite. See who can think of the best name for it. Then get the ingredients and let the class create the creature out of real food. Be sure to snap some photos. Best of all, eat it afterwards!

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