



## Scout Challenge - Week 5 Sprout and About

### Activities:

- Propagate and grow fruits and veggies from kitchen scraps!
- Measure the rain this week, use a cup and tape a ruler to it. Compare the rain storms that occur!
- Help your parents in the garden or yard.
- Plant something outside! Try planting a flowering plant and a herb or vegetable.
- Grow your own seedlings in egg cartons.

### How to Propagate a plant from Kitchen Scraps:

How to propagate a pineapple

top- <http://www.edibletropicalplants.com/2013/03/how-to-propagate-pineapple.html>

Propagate celery from scraps-

<https://www.allrecipes.com/article/regrow-celery-from-scraps/>

Re-growing food plants from scraps-

<https://www.diyncrafts.com/4732/repurpose/25-foods-can-re-grow-kitchen-scraps>

If you have seeds around the house or parents can acquire them, start a flower, vegetable, or herb garden in an egg carton in your home.

### Gardening Merit Badge requirements of interest :

2. Do the following:
  - Grow six vegetables, three from seeds and three from seedlings, through harvest.
  - Grow six flowers, three from seeds and three from seedlings, through flowering.
4. Test 100 seeds for germination. Determine the percentage of seeds that germinate. Explain why you think some did not germinate.
8. Do ONE of the following:
  - Build a compost bin and maintain it for 90 days.
  - Build a vermicompost bin (worm compost bin) and maintain it for 90 days.
  - Build a hydroponic garden containing three vegetables or herbs, or three ornamental plants. Maintain this garden through harvest or flowering, or for 90 days.
  - Build one water garden, either in a container (at least 12 by 6 inches and 6 inches deep), or in the ground as a small, decorative pond no larger than 6 by 3 feet and 24 inches deep. Maintain the water garden for 90 days.
  - Prepare a honey super for use on a hive or colony. Remove a filled honey super from the hive or colony and prepare the honey for sale.



## Cub Scout advancements:

### **Lions:**

Ready, Set, Grow (2) Learn where the food we eat comes from. (3) Plant a small container garden.

### **Tigers:**

Tiger Bites: (1) With your parent or guardian find out about good food choices and not-so-good choices. Identify three foods that you think would be good choices and three foods that would not be good choices. (2) Explain the importance of hand washing before a meal and clean-up after a meal. Then show how you would do each. (3) Show that you know the difference between a fruit and vegetable. Eat one of each. (4) With your parent or guardian pick a job to help your family at mealtime. Do it for at least 4 meals. (5) Talk with you parent or guardian about what foods you can eat with your fingers. Practice good manners while eating them. (6) With your parent or guardian plan and make a good snack choice or other nutritious food to share with your family.

### **Wolves:**

Grow Something (1) Select a seed, and plant it in a small container. Care for it for 30 days. Take a picture or make a drawing of your plant once each week to share with your den or family. (2) Find out the growing zone for your area, and share the types of plants that will grow best in your zone. (3) Research a botanical or community garden in your area, and learn about two of the plants that grow there. Share what you have learned with your family. (4) Complete one of the following: Make a terrarium, OR, Using a seed tray, grow a garden inside your home. Keep a journal of its progress for 30 days. Share the results with your den or family, OR, Grow a sweet potato plant in water. Keep a journal of its growth for two weeks. Share the information with your family. Call of the Wild (2) With your family make a list of possible weather changes that could happen during an outing according to the time of year if you are outside. Tell how you would be prepared for each one.

### **Bears:**

Bear Necessities (6) Learn how to read a thermometer and a barometer. Keep track of the temperature and barometric pressure readings and the actual weather at the same time every day for seven days. Fur Feathers and Ferns: (6) Learn about composting and how vegetable waste can be turned into fertilizer for plants. (7) Plant a vegetable or herb garden.

### **Webelos:**

Cast Iron Chef: (1) Plan a menu for a balanced meal for your den or family. Determine the budget for the meal. If possible, shop for the items on your menu and stay within you budget. (2) Prepare a balanced meal for your den or family. If possible, use one of these methods for preparation of part of the meal: camp stove, Dutch oven, box oven, solar oven, open campfire, or charcoal grill. Demo an understanding of food safety practices while preparing the meal. (3)



### STEM Activities:

Try growing seeds in clear containers so you can see them germinate

#### **Germinate Seeds in a Bag**

<https://www.scholastic.com/parents/school-success/learning-toolkit-blog/germinate-seeds-and-watch-them-sprout-windowsill.html>

#### **Grow seeds in a CD greenhouse**

<https://www.mdsci.org/wp-content/uploads/2018/05/CD-Greenhouse.pdf>

### **Let It Grow! Nova requirements of interest**

3. Act like a farmer! Think about crops or animals that are found on a farm, and think about the different kinds of farms. Then choose TWO from A or B or C.

A. With your counselor, choose two of the following topics related to food production or processing, and investigate them. Discuss your findings with your counselor.

- Where did the food you ate for dinner last night come from? Pick one food item and learn more about each of its ingredients. Where were those ingredients grown, and how did the food item get to your table?
- What kind of equipment is used on a farm?
- How were food plants invented? Where do most food plants come from?
- How and why are scientists working to develop plants that don't need as much water?
- If a big disaster wiped out a lot of food plants, how would we get more of them? How do seed banks work?

B. Define and learn about two of the following, and discuss with your counselor.

- Farming practice categories (conventional, sustainable, till, low-till, and no-till)
- Conventional, organic, and biotech farming (compare and contrast)
- Effects of weather on farming
- Converting biomass into energy
- STEM careers in agriculture (food science, plant science, farming, agricultural engineering)

C. Do an "agriscience" experiment and discuss the results with your counselor. Examples of experiments include—but are not limited to—the following:

- Grow different types of seeds and compare the seedling plants. Use fastgrowing seeds such as carrots, castor beans, lima beans, onions, radishes, soybeans, or tomatoes.
- Select and study a specific growing variable such as the type of liquid used to water a seed, the type of light, the growing temperature, or the soil type. (Examples of growing studies can be found at: [www.agclassroom.org/teen/science/idealab.html](http://www.agclassroom.org/teen/science/idealab.html) and [www.sciencekids.co.nz/projects/plants.html](http://www.sciencekids.co.nz/projects/plants.html))
- People often think of microorganisms as germs, but many of the ones found in soil are good for agriculture. How can plants grow in soil if no microorganisms are present?
- Search the internet—with your parent's permission—and find an experiment that can be done to test the effect of microorganisms. Then perform the experiment

