

Wildflower Exploration: Directions for Wildflowers Underground Activity

Materials: For this lesson you need an onion, a potato, a piece of ginger, a carrot and if possible a gladiolus corm (from Agway). If you don't have any of these fresh items look for pictures of each item. Print the Wildflowers Store Food Underground worksheet. You need an ink pad to stamp or colored pencils to draw the items. Ask an adult for help cutting the plant parts. Many woodland wildflowers are protected by law so please don't dig any up for samples.

Directions: Look at each of the plant parts you have collected. Are they alive? How can you tell if they are alive or not? What part of the plant are they? Your choices are root, stem, or leaves. All of the parts are modified to store food so the plant can grow quickly. Many woodland wildflowers grow rapidly in the spring so they can capture the sun before the trees leaf out and shade them.

Ask for adult help to cut each underground storage structure in half in the long direction. Examine the texture on the cut surfaces.

Leaves: Find the one that looks like layers in cross section.

These are layers of modified leaves full of food for the plant. An onion is an example of a bulb we eat made up of modified leaves and a wild leek is an example of a northeast native wildflower with a bulb storing food in leaves underground!

Root: Find the one that is solid in cross section and narrows as it grows straight down.

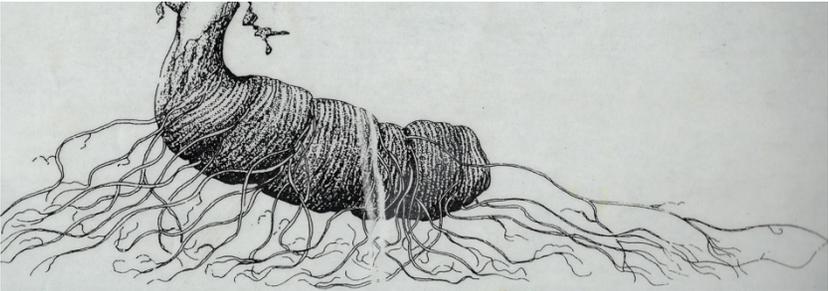
This is a root, called a taproot, storing food for the plant. A carrot is an example of a storage root that we eat. Virginia Bluebells is a northeast native plant with a taproot.

Stems: The last three underground structures are all modified stems. They are solid in cross section but have different shapes.

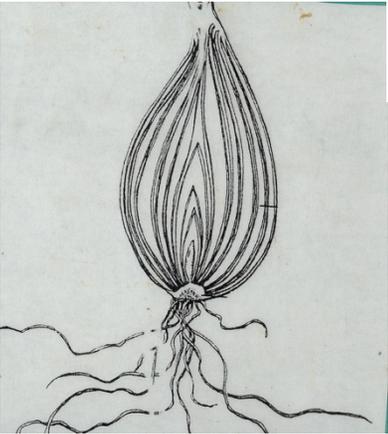
The potato is modified stem called a tuber that is often round. The native plant, Dutchman's Breeches, has tubers underground. The ginger we eat is a modified stem called a rhizome that grows horizontal in the soil. Our native trilliums store food in modified stems called rhizomes. A corm is a modified stem that looks like a squashed pumpkin. The water chestnut we eat and gladiolus we plant grow from corms. Jack-in-the-pulpit is a northeast native wildflower that stores food in a modified stem called a corm.

Stamp the cut side of your plant part in ink and then stamp in appropriate box on your activity sheet. If you don't have an ink pad, you can draw or paste pictures in the boxes.

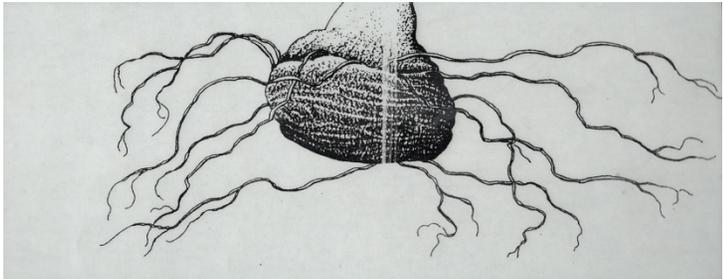
Types of underground structures



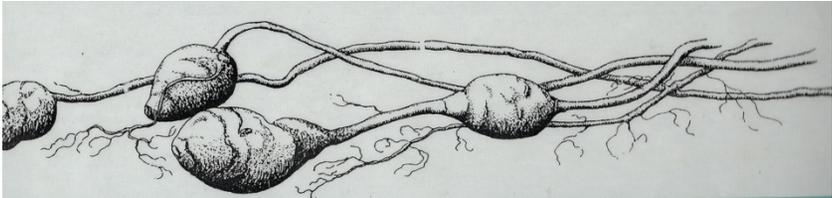
Rhizome



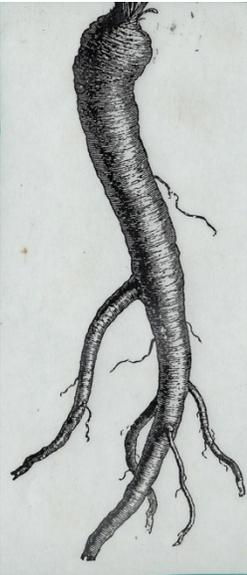
Bulb



Corm



Tuber

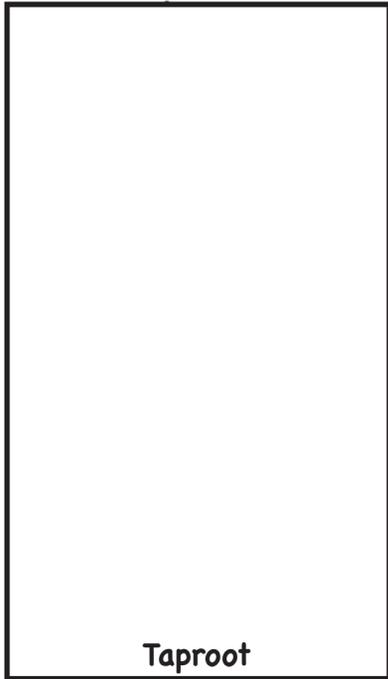


Taproot

Name

Wildflowers store food underground in:

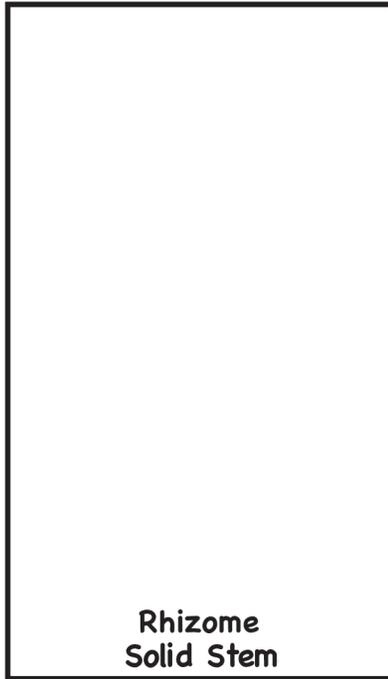
Root



Taproot

examples: carrot

Stem



**Rhizome
Solid Stem**

ginger

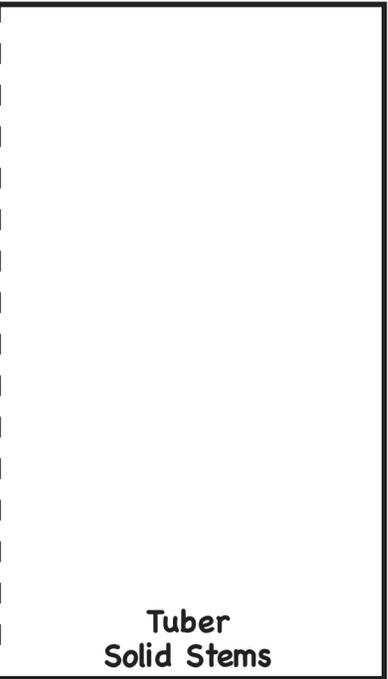
Stem



**Corm
Solid Stems**

gladiolus

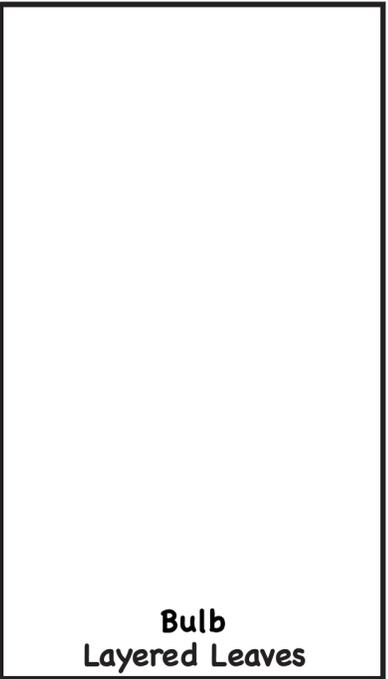
Stem



**Tuber
Solid Stems**

potato

Leaves



**Bulb
Layered Leaves**

onion