

## ***Plant Parts***

Directions and Supplies needed for this activity:

This activity can be tailored to meet the needs of the particular group of students and the learning goals that the teacher has in mind. It can be just an introduction to plants and plant parts on a very macroscopic level, or adjustments can be made to look at specific microscopic details. For instance, celery can be placed in a food coloring solution the night before the activity to allow students to trace the vasculature of the plant stem. Students can progress from looking at the flower to looking at particular sexual organs of the flower in detail.

Directions for pre- or early readers: (follow student hand out)

- Give each group of students a plant (or have two groups share). Have them draw it
- Give each student a seed in a plastic Petri dish. Show them how to use a hand lens and look for details. Show students how to use the hand lens.
- Then show the student how to use the magnifying glass or dissecting microscope (magnifying glass is easier).
- Allow each group to choose another plant part to look at with the hand lens and microscope.
- If time allows give each group a flower to examine.

Directions for mid to late elementary: (follow student hand out)

- Ask students to think about three parts of a plant and share what they think with the class. Have them a plant and label the three parts discussed (see hand out).
- Give each group a seed in a plastic Petri dish and show them how to look at it with a hand lens and then a microscope (magnifying glass or dissecting, depending on abilities of your group and access to power outlets). Have them draw what they see with the hand lens and then the microscope.
- Then, have them choose two more plant parts to examine and talk about what they see and have learned. Take very thin slices of plant parts such as roots, stems or leaves and place on a slide with a drop of water and cover.
- For advanced students, the vasculature of a celery stem can be stained by placing a piece of celery with a freshly sliced bottom in colored water overnight. Intact leaves at the top help move the water. You can also do a detailed look at the parts of a flower.

Supplies:

- Colored pencils or similar.
- 1 plastic Petri dish per group of students.

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- 1 hand lens per group of students.
- 1 magnifying glass or dissecting microscope per group of students.
- 1 simple, complete (with both male and female organs) per group. Lilies, especially alstroemeria, are recommended.
- Examples of roots, stems, leaves etc. For instance, bring carrots to be sliced for roots, celery either plain or that has been placed in colored water overnight to stain vasculature for stems, and any type of leaf. Shop the supermarket.
- Razor blades or scalpels.
- Dropper bottle with water.
- At least 3 plastic well slides/group.