



ROOT VIEW IN A PLASTIC CUP

PLAN AHEAD:



Start this activity in the beginning of the week, so students can make observations each day. It will take 3-5 days for seeds to start germinating.

PURPOSE:



To observe seeds while they germinate and see how the seeds change each day. Germinating seeds in a plastic cup also allows a view of plant parts growing that wouldn't normally be visible.

MATERIALS:



- Clear disposable plastic cups
- Potting soil
- Baking tray or plastic tray
- Plastic bags or plastic wrap
- Root View worksheets
- Variety of Seeds:
 - Peas (Spring)
 - Radish (Spring/Fall)
 - Pumpkins (Summer)
 - Sunflowers (Summer)
 - Beans (Summer)

PROCEDURE:



1. Count out 1 seed from each variety.
2. Poke 2-3 holes in bottom of clear plastic cup for drainage.
3. Fill the cup $\frac{3}{4}$ full of moist potting soil.
4. Lightly water soil.
5. Take seeds and push them between soil and the side of cup so that you can see the seeds through the cup. Make sure they're spaced out from one another so they have room to grow.
6. Label seeds by writing on cup or attaching labels.
7. Have each student do one cup with 3-4 kinds of seeds.
8. Cover cup in a plastic bag or cover it with plastic wrap.
9. Put the cups in a tray in a warm location. Be sure to maintain moist soil.
10. Check the cups every day to see how the seeds sprout. Watch for the roots and the shoots. When the first seeds have sprouted, remove the plastic covering and place the cups in a bright window.
11. After the seeds have germinated and are 3-5 days old answer the worksheet questions.

BONUS: Have students try to keep the plants alive as long as possible and watch how they grow.

Root View in a Plastic Cup Worksheet

1. Which part of the plant did you see first: the root or the shoot?

2. Why do you think it happened in this order?

3. What kind of changes did you see in the roots overtime?

4. Number these pictures in the proper order.

