



Flowering Seeds



Purpose: Students will observe similarities and differences of seeds to make a flower.

Background: A seed is a plant embryo, plus nutrient tissues to feed the embryo, packaged in a protective shell. Since it's an embryo, it's the product of sexual reproduction.

Plant life starts with seeds unless the plant reproduces by spores or vegetatively. Where do seeds come from? They are the byproduct of a flower or flower-like structure. Sometimes seeds are encased in fruits, but not always. Seeds are the primary method of propagation in most plant families. The seed life cycle starts with the flower and ends with a seedling, but many steps in between vary from plant to plant. Seeds vary in their size, dispersal method, germination, photo response, need for certain stimuli, and many other complicating factors. For instance, look at the seed of the coconut palm and compare it to the minute seeds of an orchid and you will get some idea of the vast variety in sizes. Each of these also has a different method of dispersal and has certain germination requirements that are only found in their natural environments. The seed life cycle can also vary from just a few days of viability to up to 2,000 years. No matter the size or life span, a seed contains all the information necessary to produce a new plant. It is about as perfect a situation as nature has devised.

Florida Flower Facts:

In 1991 the flower of the genus *Coreopsis* was designated as Florida's official wildflower. The state legislature made this designation after the colorful flowers were used extensively in Florida's roadside plantings and highway beautification programs. The coreopsis is found in a variety of colors, ranging from golden to pink.

The blossom of the orange tree (*Citrus sinensis*) is one of the most fragrant flowers in Florida. Millions of these white flowers perfume the atmosphere throughout central and south Florida during orange blossom time. The orange blossom was selected as the state flower by the 1909 legislature.

Materials: Base: firm burlap 5" X 8", 5" small, sturdy, straight twig (supports burlap to hang), stem: variety of small, short twigs – 4" and less, 10" of string, white glue, small sturdy leaves: hand cut, gathered outside or purchased through a craft supplier, sturdy plate, Option 1: Use a plate with sections, Flower: variety of seeds - bean, bird, flower, vegetable, etc., Option 2: use expired seed packs if you know they will not germinate. Some seeds are good 3-5 years past their expiration date with minimal effort. Option 3: wax paper

Preparation Before the Lesson:

- Using the 5" X 8" burlap, fold back $\frac{1}{2}$ " – $\frac{3}{4}$ " on both long sides and glue.
- Place the seeds on a sturdy plate. Option 1: A plate with sections to keep the seed types separated.
- Students gather small twigs outside and break to length. Or the teacher can have a variety for students to select from.

Activity:

1. On the short side, fray the bottom about one inch up.
2. Option 3: Place wax paper under the burlap so the glue does not stick to the table.
3. On the back, using the other short side of the burlap, place the 5" twig $\frac{1}{2}$ " from the top so it hangs over on each side. Glue the twig and fold over the burlap to glue in place.
4. Tie the string on each side of the twig to act as a hook to hang.
5. Observe the similarities and differences of the seeds on the plate.
6. On the front of the burlap, use a generous amount of glue in order to glue seeds to make a flower.
7. Glue leaves and twigs to finish the flower.
8. Put to the side to dry.

