Model Flower Structures Assembly Instructions and Background Information

The model flowers used in this lesson represent the shapes of actual flowers. The diagrams below indicate the location of pollen in the real flower and where it should be placed in the model flower.

Bucket Orchid

The bent PVC pipe represents a bucket orchid (*Coryanthes* genus).

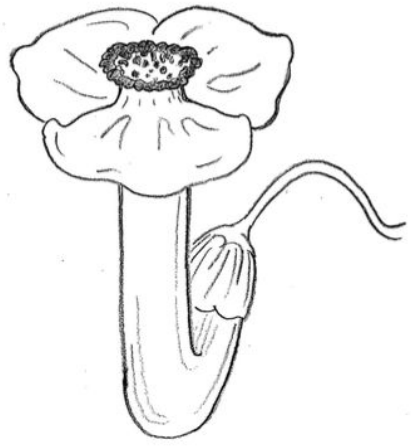
Assembly: Attach the plastic cap to the end of the curved plastic pipe using cellophane tape.
Pollen: The "pollen" is located inside the pipe at the end where the cap is (the bottom of the flower's "bucket").

The bucket orchid grows well in tropical climates and is native to Central and South America. The flowers droop below the stems of the plant, creating a cup or bucket that collects fluid secreted by the plant. When insects become trapped in that fluid, they naturally travel through a sort of escape tunnel located at the bottom of the bucket. As the insect climbs out of this tunnel, the pollen coating the tunnel walls attaches to the insect's body.

Dutchman's Pipe

The straight test tube represents a Dutchman's pipe (*Aristolochia clematitis*).

Assembly: Use a straight test tube; no assembly required.
Pollen: The "pollen" is located at the bottom of the test tube.



The Dutchman's pipe is found in Europe. The flower has a large, cupped opening, tapering to a thin pipe and small bulbous chamber at the base. The chamber houses the pollen and the nectar of the flower.

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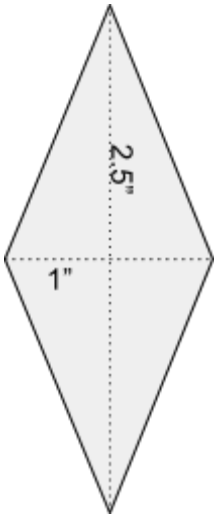
Jack-in-the-Pulpit

The straight test tube with a "flap" (or spathe) over the top represents a Jack-in-the-pulpit (*Arisaema triphyllum*).

Assembly: Using an index card or other stiff paper, cut a diamond shape from an index card that is 2.5 inches tall and 1 inch wide. Fold it in half the long way. This will be the flap (spathe) over the tops of the test tube. Tape one end of the diamond to the test tube, leaving approximately ¾" clearance between the top of the diamond and the top of the test tube. Then fold the top of the diamond over a bit to create a flap.

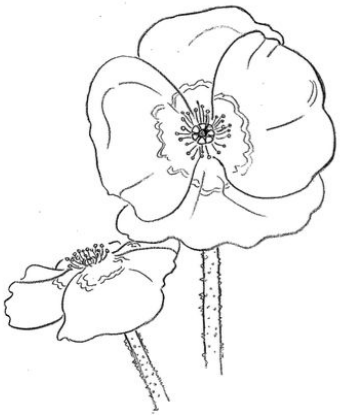


Pollen: Like in the Dutchman's pipe, the "pollen" is located at the bottom of the test tube.

Jack-in-the-pulpits grow in rich, moist woods throughout the eastern United States. At the base of the spadix, which sticks up in the middle of the flowers, are the male and female flower parts. Tiny flies are lured into the base of the spadix by the scent the flower gives off.

Poppy

The petri dish represents a poppy (*Papaveraceae* family).



Assembly: Use the petri dish; no assembly required.
Pollen: The "pollen" is located in the center of the petri dish.

Poppies have papery, colorful petals surrounding a central area of stigma and anthers, where pollen is produced and nectar is found. These flowers are found on several continents, including North America, Europe, Asia, and northern Africa.

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