

E-Forum – February 3, 2014

Flower Dissection – Inquiry based science

Supplies:

- Flowers
- Tweezers (optional)
- Razor blade (or small knife, scissors for younger children)
- Hand lens or microscope
- Paper /pencils
- Diagram of flower structure handout - page 3

Leaders can use the two following web sites for background information, diagrams of flower parts and different types of flowers (right click on hyperlink)

<http://www.ext.colostate.edu/mg/gardennotes/135.html> Really good background for leaders

<http://leavingbio.net/thestructureandfunctionsofflowers%5B1%5D.htm> Very detailed for older participants

Objectives:

1. Participants understand what flowers are for.
2. Participants will identify flower structures
3. Participants will make observations and distinguish between self-pollinating flowers and cross pollinating flowers
4. Participants recognize similarities between plant and animal reproduction

Look at your flower

Take your flower apart; identify the parts (look at diagram, if needed)

Inquiry questions

Why do plants have flowers?

Why are flowers different shapes colors and smells?

What are flowers for?

Looking at the diagram identify the flower parts of your particular flower.

What is the function of each flower part?

Why do plants need flowers to reproduce?

Extended questions:

Why are pollinators important to our food supply?

Why is reproduction important to our food supply?

Participants can take flowers apart and tape on paper or they could draw the flower parts.

Be really creative take art supplies and random “stuff” to have participant make flower sculptures.

Connecting art and science is a great way to reinforce learning science while letting participants share their creativeness.

Here are a few YouTube video that could be part of the presentation if needed, also can be used for background information for leaders.

4-H participants could create their own video.

<http://www.youtube.com/watch?v=POYoFF6G8L4>

<http://www.youtube.com/watch?v=ScnGJ4StI3w>

<http://www.youtube.com/watch?v=objfi2CNobM> fun intro not inquiry good back ground info I

<http://urbanext.illinois.edu/gpe/case1/c1facts2d.html> good for younger kids

<http://www.youtube.com/watch?v=6nyq9E4rVyY> lab report 2.29 minutes

http://www.youtube.com/watch?v=YqM6rgB_I_o A video about fertilization

Flower Structure Handout

Pistil – Central female organ of the flower. It is generally bowling-pin shaped and located in the center of the flower

Stigma – Receives pollen, typically flattened and sticky

Style – Connective tissues between stigma and ovary

Ovary – Contains ovules or embryo sacs

Ovules – Unfertilized, immature seeds

Stamen – Male flower organ

Anthers – Pollen-producing organs

Filament – Stalk supporting anthers

Petals – Usually colorful petal-like structures making up the “flower”, collectively called the **corolla**. They may contain perfume and nectar glands.

Sepals – Protective leaf-like enclosures for the flower buds, usually green, collectively called **calyx**. Sometimes highly colored like the petal as in iris.

Receptacle – Base of the flower

Pedicel – Flower stalk of an individual flower in an inflorescence

