* Title
  + Parts of a Flower: Flower Dissection
* Objectives
  + Students will learn the parts of a flower necessary for plant pollination (and overall plant reproduction)
* Standards
  + K.LS.1 Describe and compare the physical features of common living plants and animals
  + 1.LS.2 Develop a model mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. Explore how those external parts could solve a human problem
  + 3.LS.2 Plan and conduct an investigation to determine the basic needs of plants to grow, develop, and reproduce
  + 4.LS.3 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction in different ecosystems
* Vocabulary
  + Pollination/ pollinator
  + Sepal
  + Petal
  + Stamen
  + Pistil
  + Anther
  + Ovary
  + Stigma
* Materials
  + Flowering plant
  + Tweezers
  + 4 index cards or paper plates
  + Marker or pen
  + Magnifying glass (optional)
* Introduction
  + The 4 main sections of a complete flower are the sepals, petals, stamens, and pistils.
    - Sepals are typically green (sometimes they are the same color as the petals) and protect the flower
    - Petals are general colorful and scented to attract pollinators
    - Stamens are the male parts of the flower that hold pollen
      * The anther holds the pollen and is supported by the filament
    - Pistils are the female parts of the flower that lead to the ovaries where fertilized ovules become seeds
      * Pollen enters the stigma which leads through the style to the ovary
  + Pollinators are attracted to the colorful, scented petals of the flower. Once it lands on a flower, the pollinator will search inside the flower for nectar. During that time, the pollinator will brush up against the stamens which causes pollen to stick to their bodies. When that pollinator travels to another flower it may land on top of the pistil and travel down to fertilize the ovules (eggs) at the bottom of the pistil. The fertilized ovules will turn into seeds.
  + Explain to students that they will be exploring the different parts of flowers by “dissecting” a flower.
* Procedure
  + Using the marker or pen, label each index card or paper plate:
    - Label 1 “sepal”
    - Label 1 “petal”
    - Label 1 “stamen”
    - Label 1 “pistil”
  + Begin by removing sepals and petals. Which is which? Place them on their labeled plates.
    - Sepals are on the outside and are typically green or a combination of green and the petal color
  + Next, see which parts you can identify on the inside of the flower. Place them on their labeled plates.
    - The stamen has pollen on the end at the anther. Pollen will come off on your fingers if you touch it
    - The pistil is usually located in the center of the flower.
* Closure
  + Every part of the flower is important in pollination. Were you able to find them all? What do you think might happen if there were fewer flowers around for pollination? What about if there were fewer pollinators? What kinds of situations might cause a drop in the number of pollinators or pollinator platns?

