Seeds

**You will need:**

A Seed Science Experiment worksheet

A Pencil

2 pinto beans

A paper towel

A toothpick

A magnifying glass

A small Ziploc bag

Directions

1. Remove the outside skin of one of the beans.
   * This part is called the **seed coat**, and it protects the bean inside.
2. Place your fingernail at the rounded edge and spread the halves of each bean open lengthwise. Use a magnifying glass to look inside.
3. Look at the **cotyledon (cot-ee-lee-don).** It is the largest part of the inside of the bean. It stores the food for the growing bean.
4. At the top of the cotyledon is the shoot. Tease it out from the cotyledon with your toothpick.

There are three parts to the shoot.

**- epicotyl (ep-ee-cot-ill)** -This will form the bean’s future leaves.

- Just under the epicotyl is the **hypocotyl (hippo-cot-ill)**  -This is the beginning of

the stem

- The **radicle** is under the hypocotyl - This is the beginning of the bean’s roots.

1. Fold the paper towel and place it in the Ziploc bag.
2. Put a row of staples across the bottom of the bag 1” up from the bottom.
3. Place one whole seed and one embryo into the bag. Wet the paper towel with the spray bottles and leave the bag open. It should look like this:

8. Fill out the Seed Science Experiment page.