



## TAKE AND MAKE: Homeschool: Bean Germination Experiment (Ages 6-12)

[tinyurl.com/PPLDHomeschoolPlaylist](https://tinyurl.com/PPLDHomeschoolPlaylist)



How do seeds transform into plants? What happens when a bean seed begins to grow? Watching a sprout emerge from a dry seed is nothing short of miraculous. You will plant beans inside a plastic bag to watch roots form and leaves emerge right before your very eyes. You will also compare how beans grow in light and dark environments.

### Supplies Included

2 plastic zipper storage bags  
10 uncooked pinto beans (remove from bag)  
2 paper towels  
Data Sheet for Light Experiment  
Data Sheet for Dark Experiment  
Bean House Template

### Supplies From Home

Water (in bowl or sprayer)  
Scissors  
Scrap paper to label beans with date  
Scotch tape or glue stick  
Pen or Pencil  
Crayons or marker  
Ruler

**Safety Tip:** Dried beans are choking hazards for small children. Adults will need to supervise this activity.

### For This Experiment:

1. Experiment Light: choose a sunny window where the seeds will get plenty of light, but won't be blasted by intense sun all day
2. Experiment Dark: Find a closed drawer or closet that is dark and not opened very often

### Directions:

1. Fold paper towels so they will fit inside the bags.
2. Dampen paper towels with spray bottle (not too wet!) and place inside bags. You will need to add water to paper towels when they dry out over time.
3. Put 5 beans into each bag on top of paper towels (leave room between them to grow!) and zip closed.
4. Write the date on scrap paper, label either Light or Dark, and tape to each bag.
5. Color/decorate the frame of the Bean House Template with markers or crayons. Fold it in half lengthwise and use scissors to cut along the dotted lines (you are cutting out a large square). Tape the Light Bean Bag into the Bean House.
6. Tape the Bean House (Light Bean Bag) to a window. Put Dark Bean Bag into a dark place.

Now you are ready to prepare your data sheets. Use the Scientific Method questionnaire on the back of each sheet to make predictions about how each bag of seeds will grow. Use the front sides of the sheets to collect data. You will make drawings and take measurements. Do this every 3- 5 days and see if your hypothesis for each bean bag comes true! Do the seeds grow the same in both bags? Can you think of other variables to try besides light and dark?

