

## Phototropism: Shoe-box Maze

The following experiment is a fun and easy way to see the effects of phototropism on a plant by making it complete your own maze

These are the materials needed to make your own shoe-box maze

- Shoebox
- Extra cardboard
- Scissors
- Tape
- Small potted plant (bean plant)



### Methods:

Cut a large hole at one end of the shoebox. Hold the box up to the light and be sure to tape up any other spaces where light shines through.

Cut two pieces of cardboard in the following sizes:  
First make both pieces half the width of the shoebox.  
Then make both pieces the same height of the shoebox.

Now divide the box in thirds and tape one cut cardboard piece on the left side of the box at the one-third mark. Next, tape the other cardboard piece on the right side of the box at the two-thirds mark.

The box should look like the box shown below.



Place the small potted plant in the shoebox opposite the hole; make sure that it is well watered. (We started a bean in a plastic cup.)



Close the box, tape it, and place it in a sunny window.

In about 4 or 5 days open the box and notice how the plant grows in the direction of the light coming from the hole!!!