



DALLAS ARBORETUM  
Education

## *Garden STEM at Home* *A-Maze-ing Light*



WE GROW MINDS, TOO.



### OBJECTIVE:

STUDENTS WILL CONDUCT AN EXPERIMENT TO INVESTIGATE THAT PLANTS NEED LIGHT TO GROW.

### SOURCE

United States Department of Agriculture Dig In! Curriculum

### BACKGROUND

What do plants need to grow? Essential to all plants is light. This classic experiment allows students to visually see the powerful effect of light on plants.

### INSTRUCTIONS

1. Ask students to create a plant maze box based on the examples below. Bean plants are an excellent choice for this experiment due to their growth rate.
2. Ask students to create an if/then statement with the following stem: If plants need light to grow, then ...
3. Check progress each day over the course of 2 weeks, watering as needed.
4. Ask students to review their If/Then statement and write a conclusion based on their results.
5. Optional extension: Create a more challenging plant maze to see if you can stump your bean plant.

### ADDITIONAL RESOURCES

USDA Dig In! Curriculum:

<https://www.fns.usda.gov/tn/dig-standards-based-nutrition-education-ground>

Little Green Thumbs Plant Light Maze (alternate version of activity):

<https://www.littlegreenthumbs.org/wp-content/uploads/2020/05/Plant-Light-maze.pdf>

Greensboro Science Center step-by-step instructions with photos:

<https://greensborosciencecenter.wordpress.com/2017/04/20/diy-science-light-maze/>