

## “Lights Out!”: A Post Visit Activity for Growing Up Victorian (Grades K- 2)



**Description:** Students will conduct a lab to see how light affects the seed’s ability to sprout and grow. (Suggested seeds are sunflower, radish, and rye grass as they have a quick germination rate.) **When booking your Growing Up Victorian program, please request “Plant a Seed” station as one of your stations so that you can participate in this activity.**

**Time frame:** Comparisons made 1 week, then at 2 weeks after seeds planted at Grow a Seed activity at Mahaffie Stagecoach Stop and Farm. If you did not have the “Plant a Seed” station on your visit to the farm, feel free to plant seeds in your classroom.

### Standards covered in this activity:

(Next Generation Science Standards)

- 2-LS2 Plan and conduct an investigation to determine if plants need sunlight and water to grow.

### Procedure:

1. After planting seeds in cups at Mahaffie (or in your classroom) water each of the cups with  $\frac{1}{4}$  cup water.
2. Cover all of the cups with plastic wrap, and rubber bands to keep the soil moist. Divide the cups into 2 groups, and place  $\frac{1}{2}$  of the cups in a black plastic trash bag (group A) or in a dark cabinet away from the light source.
3. Place  $\frac{1}{2}$  of the cups in the light (on windowsill or under lamp). This will be Group B.
4. Check after 1 week to see which ones sprouted, and the color of the sprouts.
5. Water the cups again with  $\frac{1}{4}$  C water each, but this time do not cover with plastic wrap. Place plants from Group A back in light. Place plants from Group B back in dark cabinet or inside black trash bag.
6. Check in 1 week to note the color of the sprout. (Seeds grown in sun will be green, while ones placed in dark will be somewhat yellowed by comparison. If this difference is not noted yet, keep moist and try for another week....)

### Analysis:

1. Do seeds need light in order to sprout? (*Answer: no*)
2. Do seeds need light in order to be green and healthy? (*Answer: yes, once the seeds have sprouted, they need light to stay green and healthy because they now have to make their own food instead of relying on the stored energy in the seed*)