

# BEAN SPROUTING

## STUDENT ACTIVITY

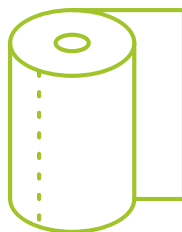
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In this lesson, you will germinate and plant beans, while also documenting each stage of germination and growth. Once you have sown and sprouted the beans in the classroom, you can take the bean plants home to transplant in a garden or grow in a pot by a sunny window. You can also plant them in the school's community garden if one exists.



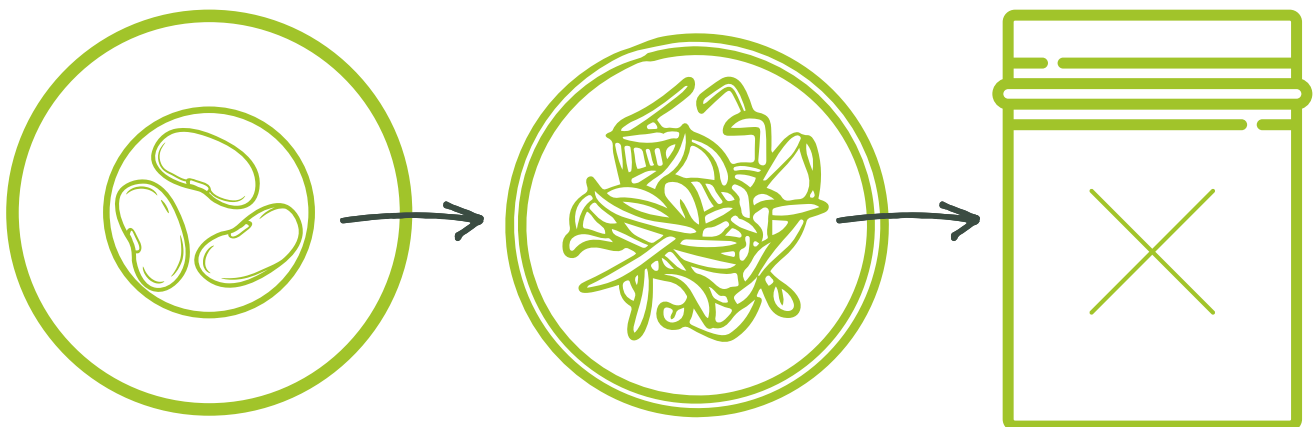
### Materials Needed

- Soldier Beans, Jacob's Cattle Beans, or Yellow Eye Beans, from Webster Farms.
- A bowl to germinate the beans.
- Paper towel or cheese cloth to continue germination.
- Small plastic containers or plates.
- Two or three sandwich bags.
- Potting soil in one or two small bags.
- Container of water.
- Notebook and coloured pencils for diagramming and recording the beans' growth.



# Germinating Instructions

1. Each student receives a sprouting package: beans, petri dish, paper towel, water container.
2. Write your name and bean type on the petri dish.
3. Place 8-10 beans in a plastic bowl and a third of a cup of water overnight to kickstart the germination process. Empty out the water the next day.
4. Fold one piece of paper towel and fit it into the bottom of the petri dish. Dampen with a small amount of water to create a moist base for the beans.
5. Distribute beans evenly on the wet paper towel in the dish. Each petri dish should be able to fit about 8 evenly spaced beans.
6. Next, fold up a second piece of paper towel and lay it over the beans and pour a small amount of water over the paper towel—enough water that it soaks the paper towel but not enough that it pools in the petri dish.
7. Place all the petri dishes together on a shelf or tray in the classroom. Monitor the beans and petri dishes every day for evidence of sprouting. The first sign of germination will be the appearance of a root.



# Diary and Reporting Instructions

1. Every two days you will measure and make a diagram of your beans, documenting their growth from a germinated bean to a sprout to a small plant.
2. You will record the date, measure the length of the sprouts, and note key developments on each day. Pay attention to what you see, feel, smell, as you observe the growth.
3. After you have documented your beans' growth from embryo to plant, you will write a brief report summarizing your observations. More instructions on the report will follow.

