

Nuts About Seeds

An activity of "Tee and Boba".

Read the comic "Tee and Boba" (page 28, *What's Up* July 2023). Then, take on these two challenges!

CHALLENGE #1 – SOLVE A PROBLEM

- 1) Boba found a bag of seeds. Boba planted $\frac{1}{5}$ of the seeds and gave 30 of them to Tee. Boba was left with $\frac{2}{3}$ of the seeds. He packed them into 18 pouches. Some pouches contained 6 seeds while the rest contained 12. How many seeds were packed into 18 pouches?

CHALLENGE #2 – CONDUCT AN EXPERIMENT

- 2.1) Grow some mung beans (green beans) in plastic cups under different conditions to see which conditions produce the best harvest. Vary the amount of light, water, and temperature to see how these conditions affect the growth of the seeds.

Materials needed:

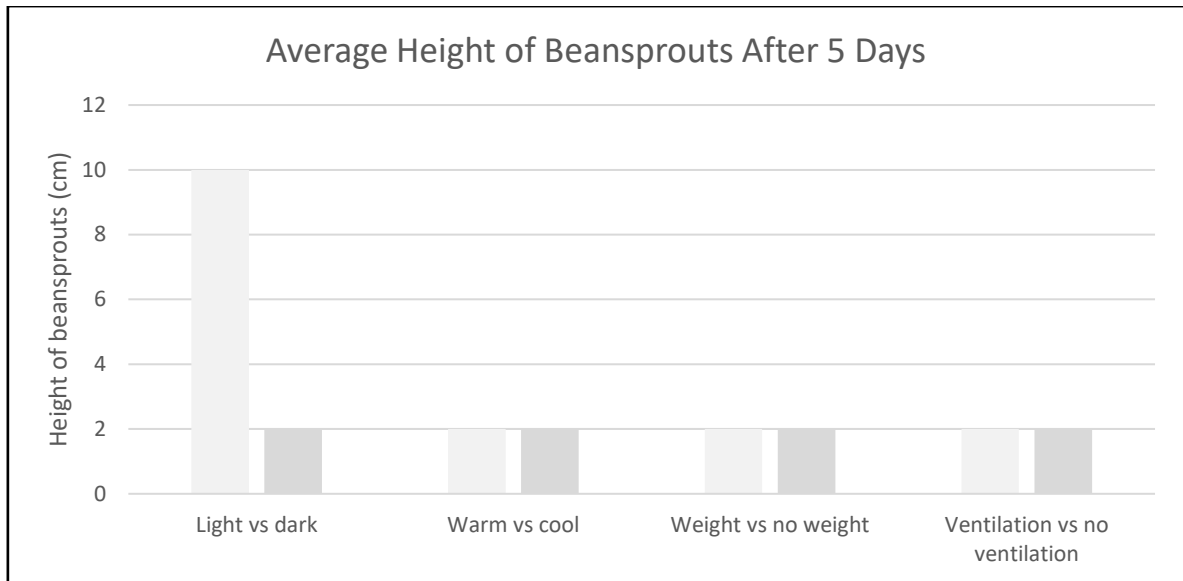
- Mung bean seeds
- 5 plastic cups
- Water
- Markers/labels
- Paper towels

Instructions:

- a) Measure an equal amount of mung bean seeds for each condition you want to test. Label the cups accordingly. E.g. light, dark, warm, cool, etc.
- b) Rinse the seeds and fill each container with enough water to cover the seeds before soaking them overnight.
- c) After soaking overnight, your seeds would have expanded. Rinse them gently under running water and drain them thoroughly.
- d) Repeat the rinsing and draining process 2-3 times a day to keep the seeds moist, but not waterlogged.
- e) You can test the following conditions:
 - Light (put one cup in a well-lit area, put the other in the dark)
 - Temperature (put one cup in a warm location and another in the fridge)
 - Pressure (put a weight on one set of beans and not on the other)
 - Air circulation (put one cup near an open window, and the other in a closed box)

- f) Observe the progress of the sprouts daily. Take notes on the growth rate, colour, texture, and overall health of the sprouts in each condition. The sprouts will probably take an average of 4 to 5 days to reach the desired length (5 to 10cm).
- g) Measure the length of the sprouts with a ruler and record your results on the 5th day. Compare the growth, colour, and texture of the bean sprouts in each condition. Analyse your data and observations to determine which condition produced the best bean sprouts in terms of quality and yield.

2.2) Show your results in a bar chart by colouring the bars to the correct height.



Based on the results, speculate what combination of variables would produce the best crop of bean sprouts. Write your hypothesis here.

2.3) Watch the following video.

How To Grow Bean Sprouts In Plastic Cups

➤ <https://youtu.be/ad5aK7XeJWM> (EY-Gardening, Aug 21, 2021)

To what extent did this method match your hypothesis?

2.4) Grow your own beansprouts and harvest the best crop you can for your next meal! (Be sure to wash the sprouts thoroughly before cooking them.)