

GERMINATION RATE



SUPERNOVA
DALHOUSIE UNIVERSITY | HALIFAX, NOVA SCOTIA

PRACTICE RATE CALCULATIONS WHILE WATCHING NATURE IN ACTION!

MATERIALS

3

- 10 dried bean seeds (lima, pinto & mung beans work best)
- Paper towel
- 1 ziploc bag
- 1 permanent marker

30 MINS

PROCEDURE

Step 1

Using the permanent marker, draw a frame with 10 sections on the plastic bag.

Step 2

Place a moistened paper towel inside of the bag, and 1 bean seed in each of the 10 delineated sections.

Step 3

Place the bag in a sunny area, and on a flattened surface in order to keep the seeds in their designated window.

Step 4

Hypothesize how many beans you think will germinate. Once they've germinated, compare your hypothesis with your results.

Step 5

Calculate the germination rate: $\text{seeds germinated} / \text{total seeds} \times 100$. How would this calculation change if, for example, your total seed value became 15?

TO MAKE YOUR EXPERIMENT MORE ADVANCED, TRY TESTING FACTORS THAT AFFECT GERMINATION! FOR EXAMPLE, PUT A FEW OF THE SEEDS IN POTTING MIX OR CONTROL THE AMOUNT OF SUNLIGHT THAT YOUR SEEDS RECEIVE.

PURPOSE & SCIENCE OUTCOMES

- The germination rate represents the proportion of seeds in your sample that actually germinate.
- In germination, the plantlet expands and grows using energy from storage tissue - this is the only time in its life that it is not producing energy for itself via photosynthesis!

ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL