

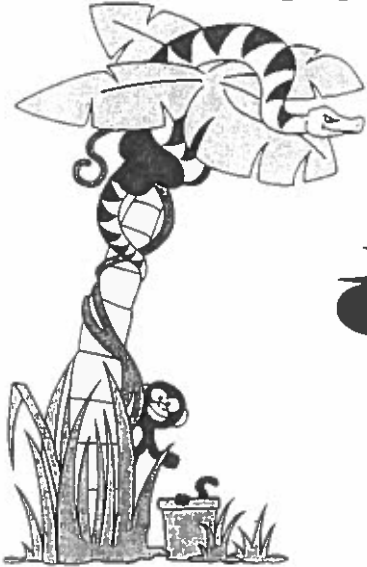
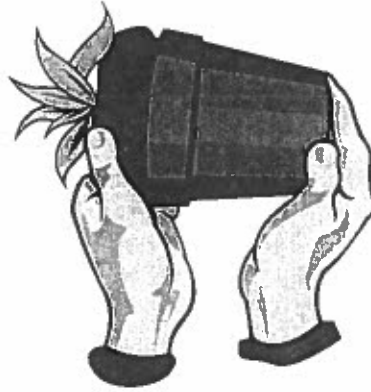
My



Plant



Growth



Journal

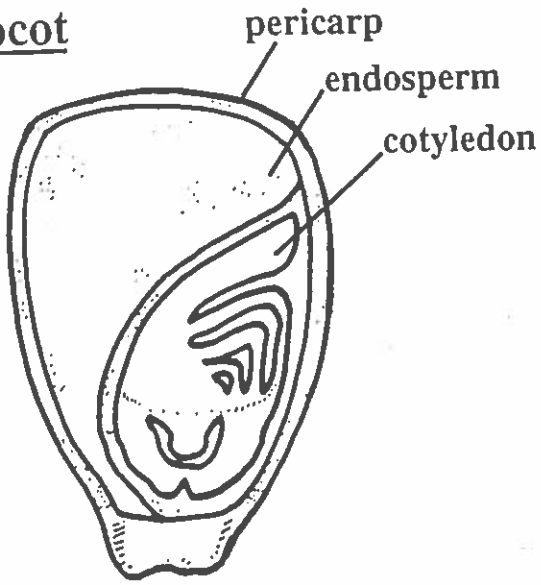
Name



Name _____

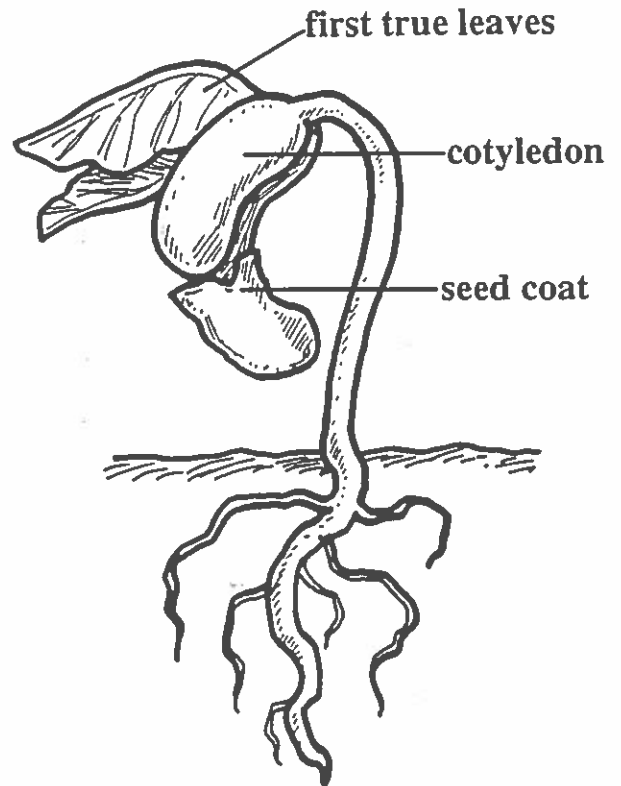
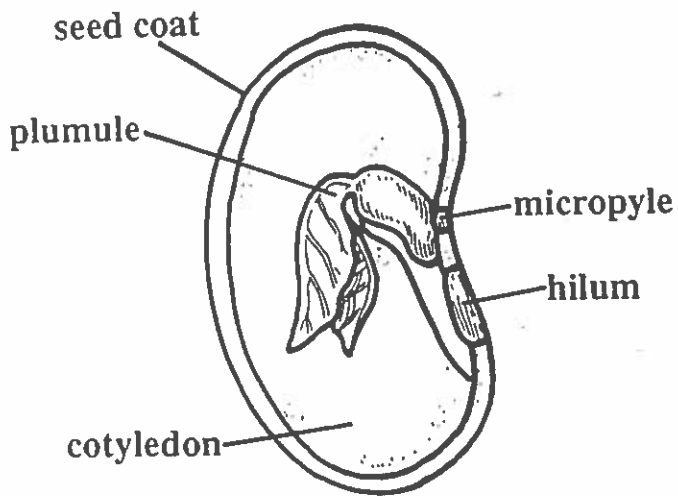
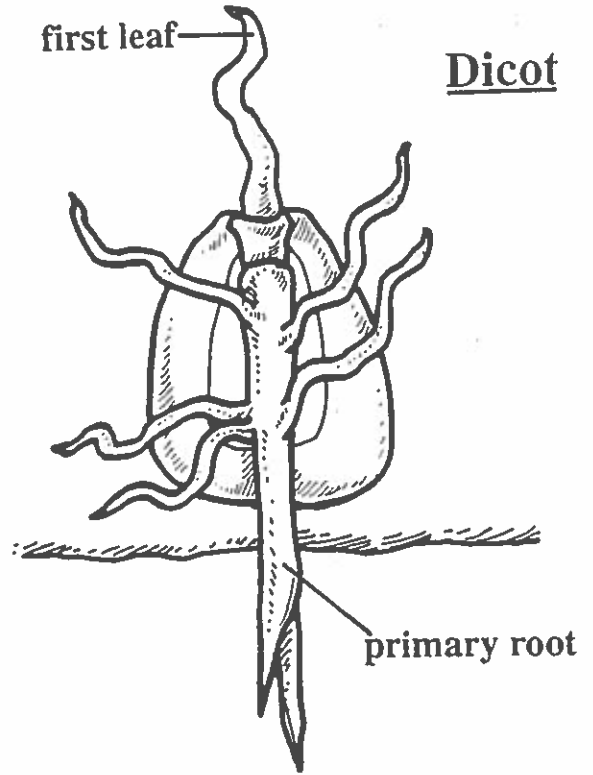
Monocots and Dicots

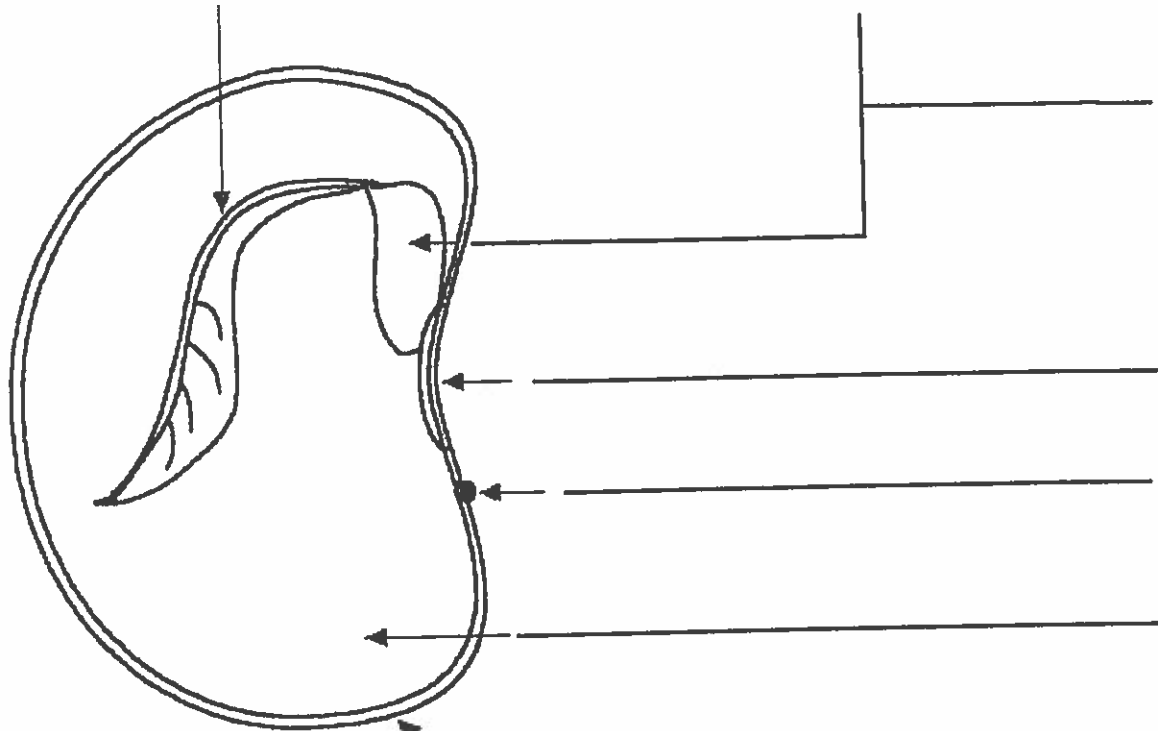
Monocot



first leaf

Dicot





Label the Dicot Seed

Word Bank:

embryo - developing plant still inside the seed. The embryo has cotyledons (embryonic leaves), a root cap, a food source and a plumule (shoot).

hilum - the scar on a seed coat at the location where it was attached to the plant's stalk during development

micropyle - the small pore in a seed that that allows water absorption

root (hypocotyl) - the part of the stem of a sprouting plant that is above the root and below the stalk of the cotyledon (seed leaves)

seed coat (testa) - seed coat is the outer, protective layer covering attached to the plant's stalk during development

micropyle - the small pore in a seed that that allows water absorption

root (hypocotyl) - the part of the stem of a sprouting plant that is above the root and below the stalk of the cotyledon (seed leaves)

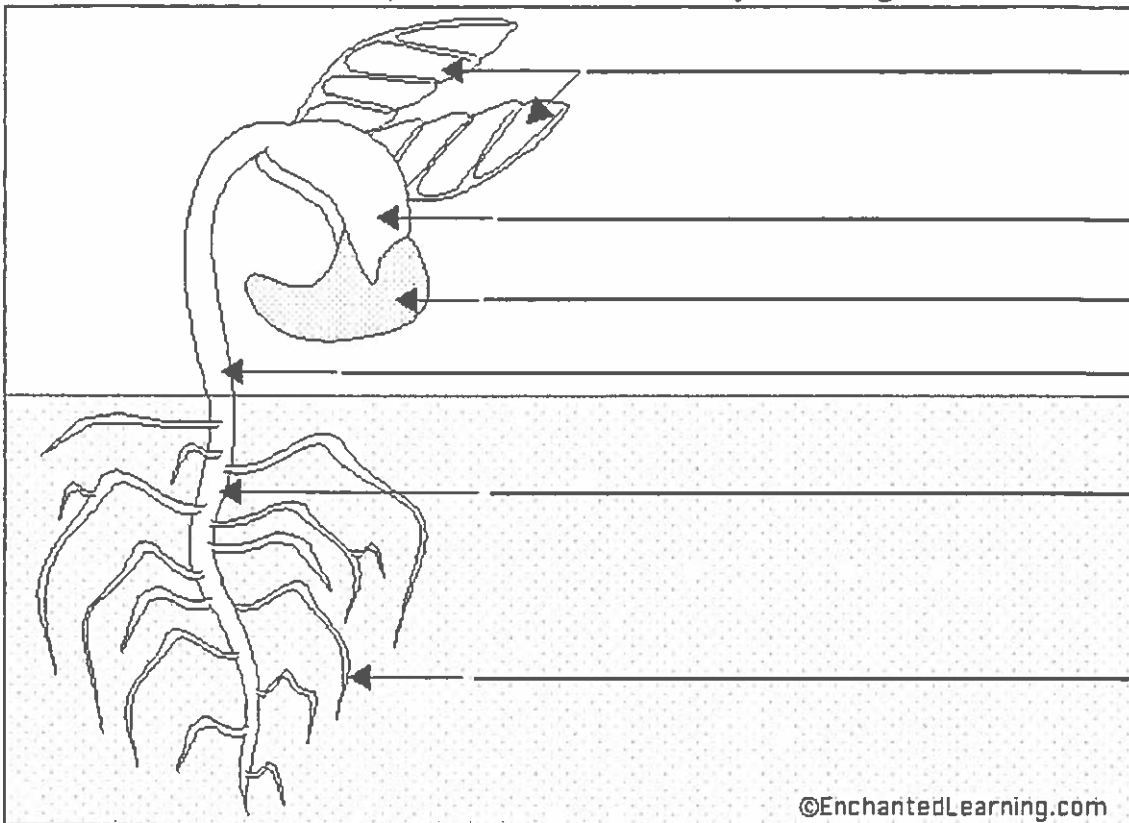
seed coat (testa) - seed coat is the outer, protective layer covering the seed

seed leaf (cotyledon) - the embryonic leaf within a seed

plumule - the shoot of a embryo

Label the Sprouting Bean Diagram

Read the definitions, then label the dicot plant diagram below.



Word Bank:

cotyledon - (also called seed leaves) the embryonic leaf within a seed. Dicots (plants like the bean plant above) have two cotyledons.

first true leaves - the first two leaves of the plant that emerge from the cotyledon. These leaves are the first to begin the process of photosynthesis.

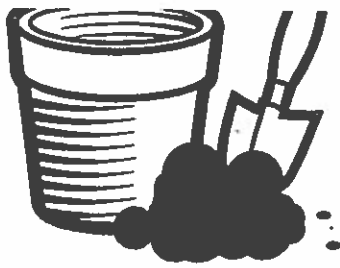
hypocotyl - the part of the stem of a sprouting plant that is above the roots and below the stalk of the cotyledons.

primary root - the main, thick part of the root (and the first part to grow).

secondary root - small roots that grow from the primary root

seed coat - the outer, protective layer that covers the seed. It is shed after the bean sprouts.

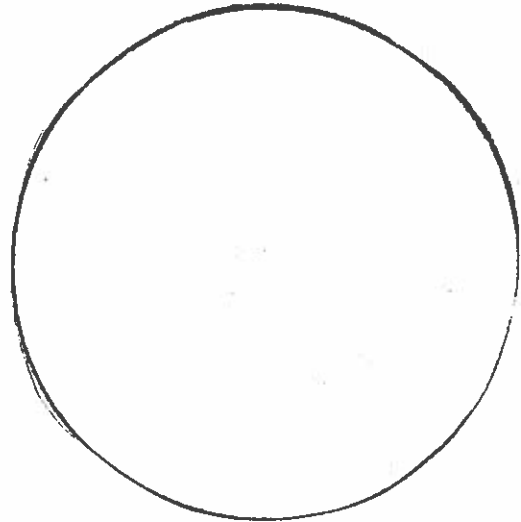
MY SEED



DATE: _____

WHAT I OBSERVED _____

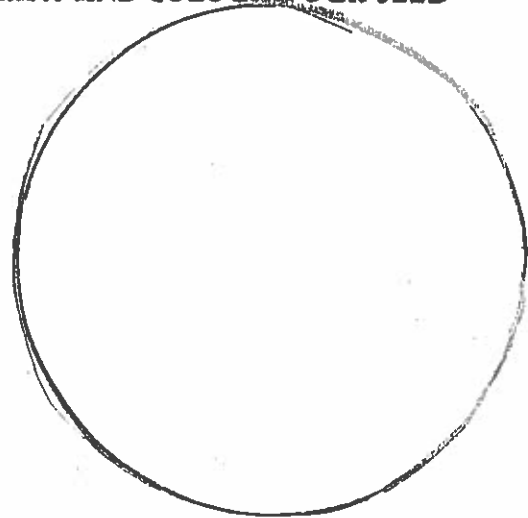
DRAW AND COLOUR YOUR SEED



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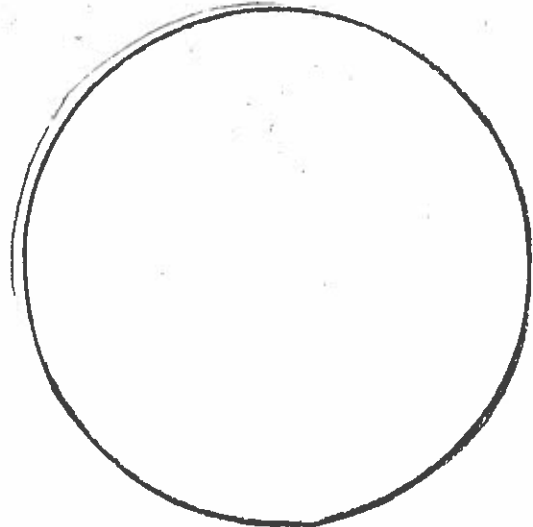
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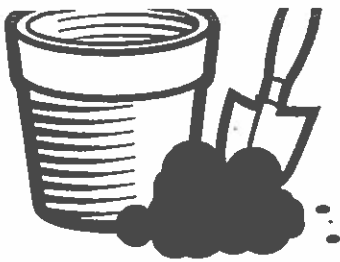


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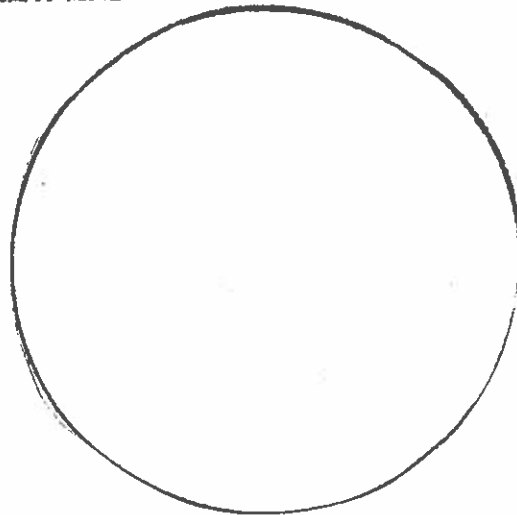


MY SEED

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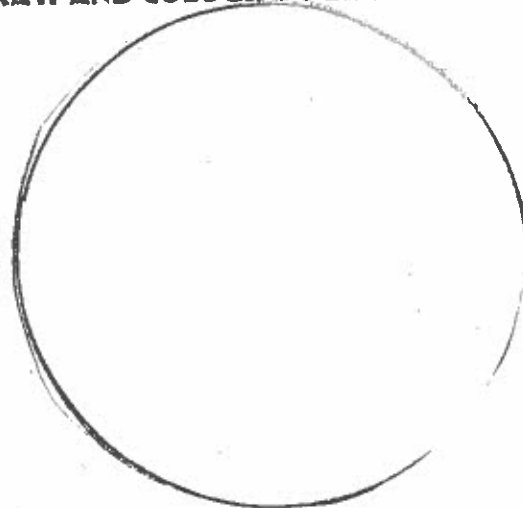
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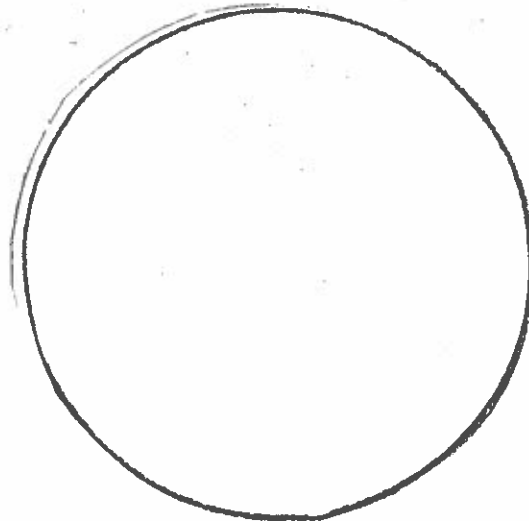
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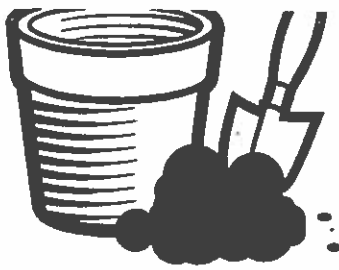
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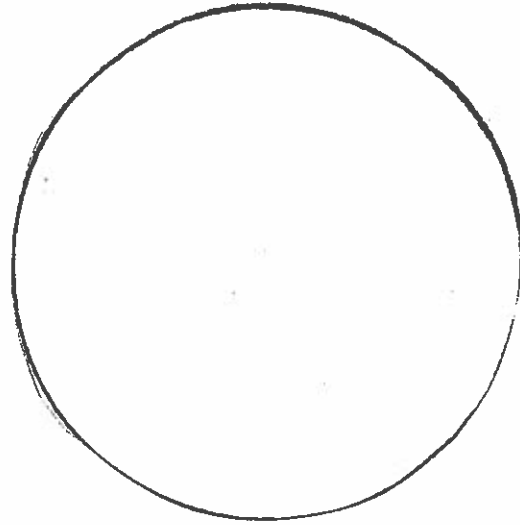
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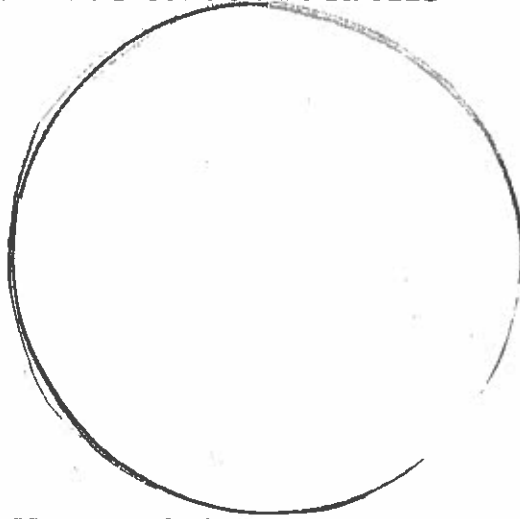
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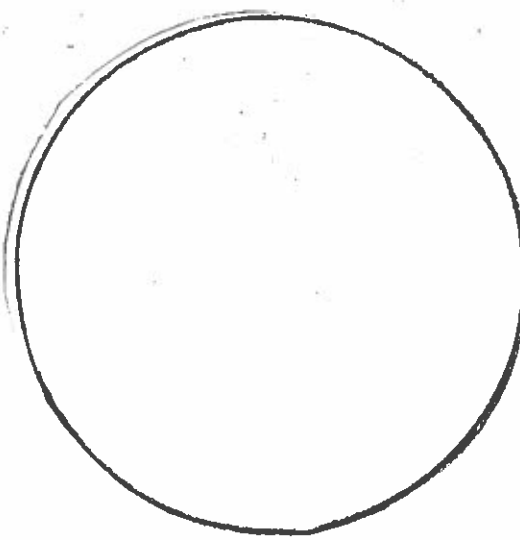
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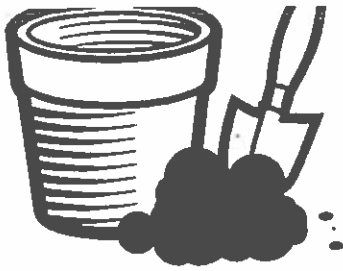


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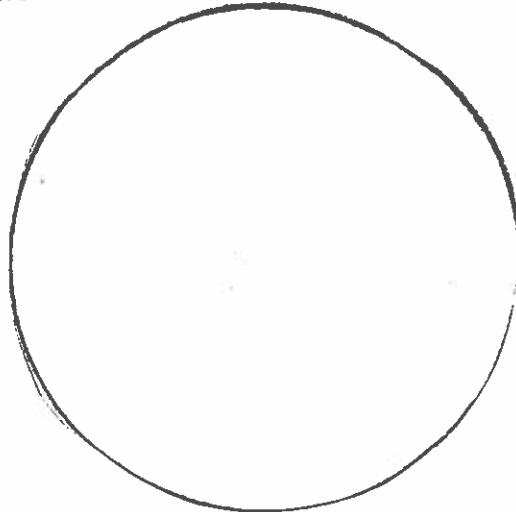


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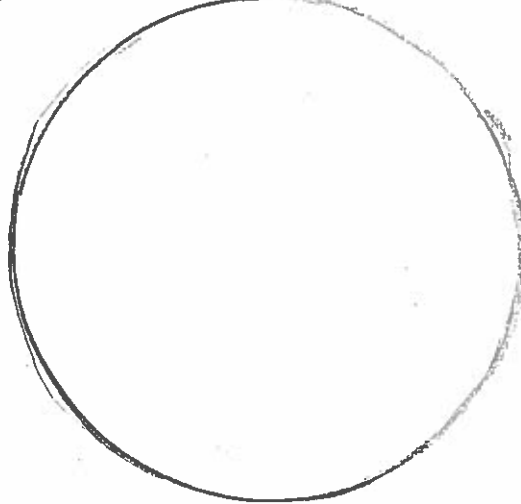
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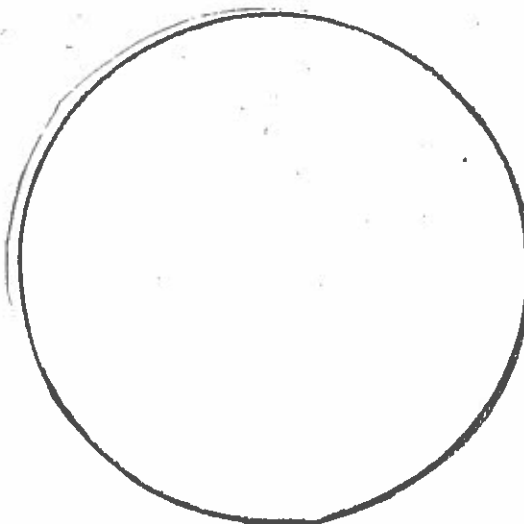
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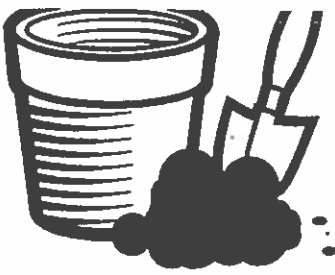
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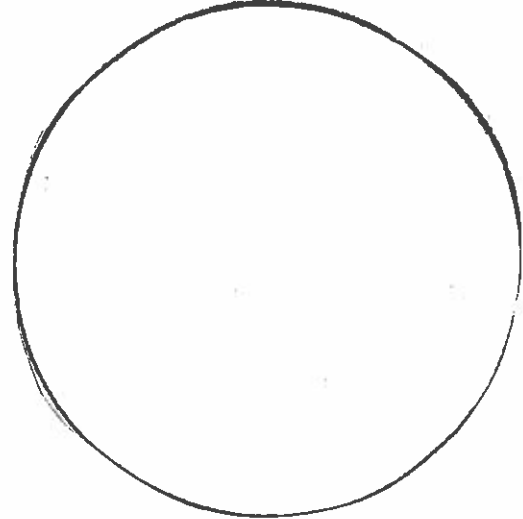
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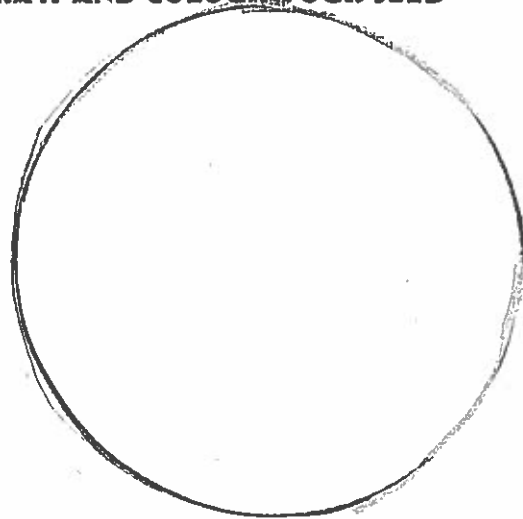
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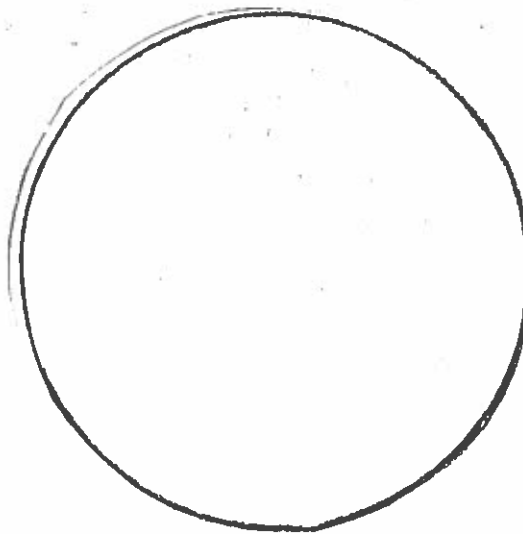
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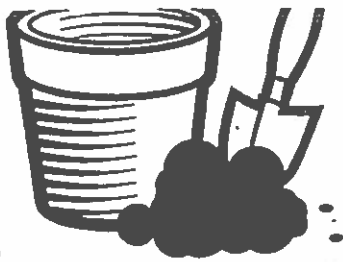


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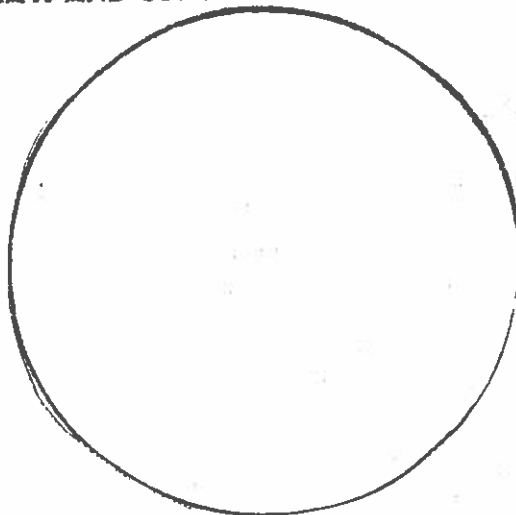


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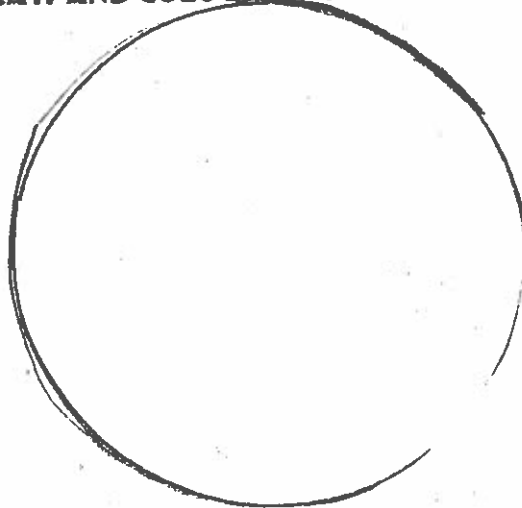
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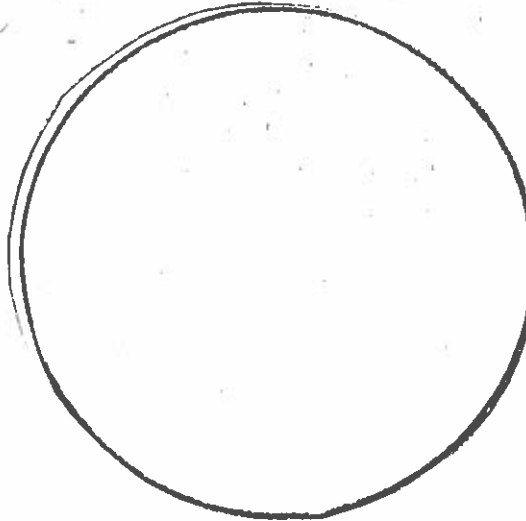
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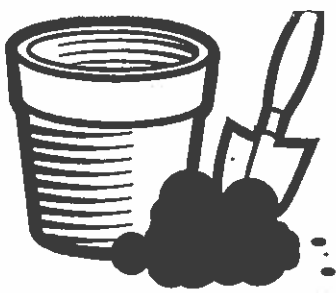


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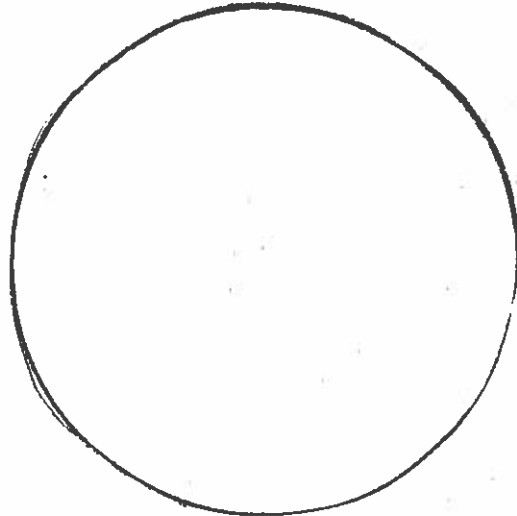


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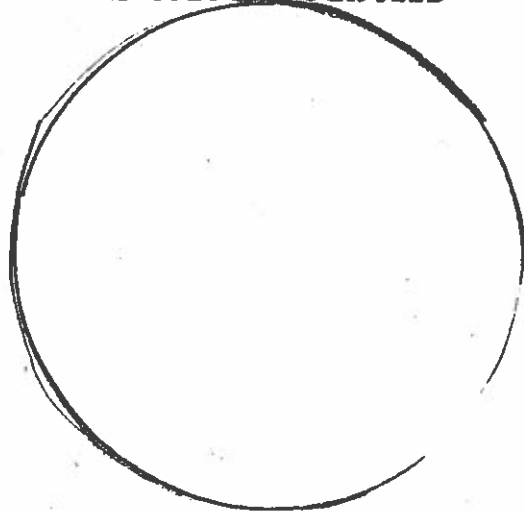
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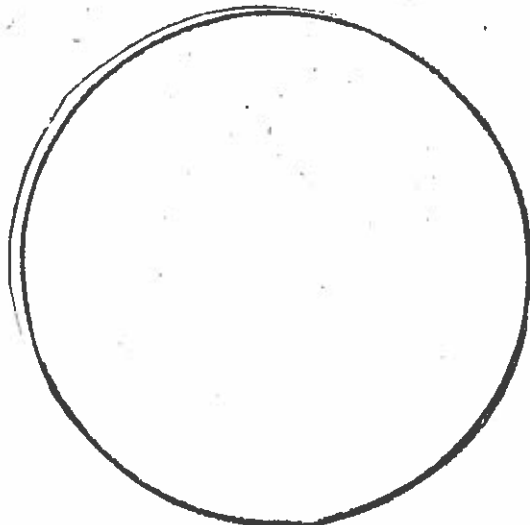
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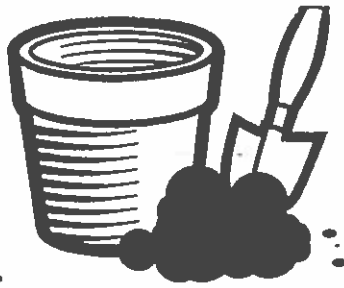


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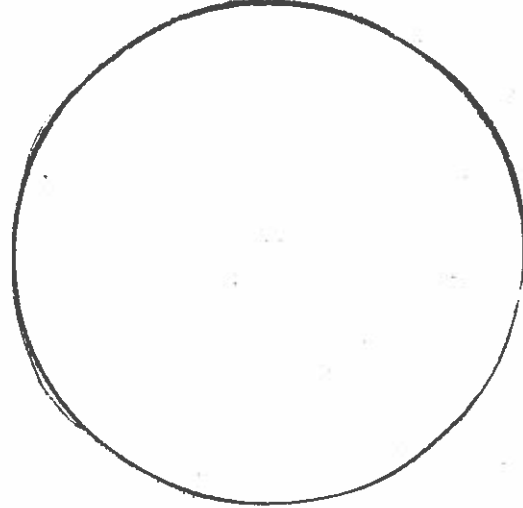


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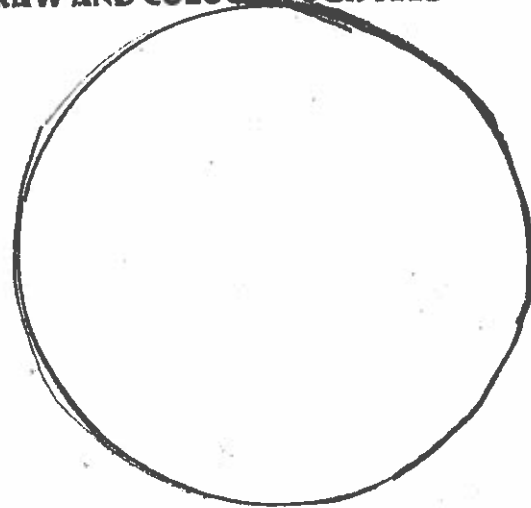
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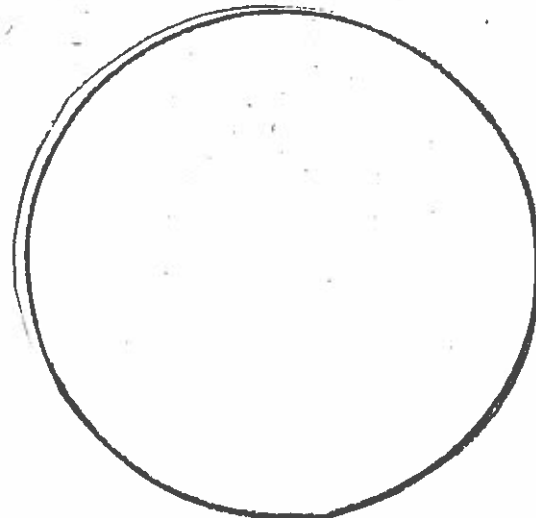
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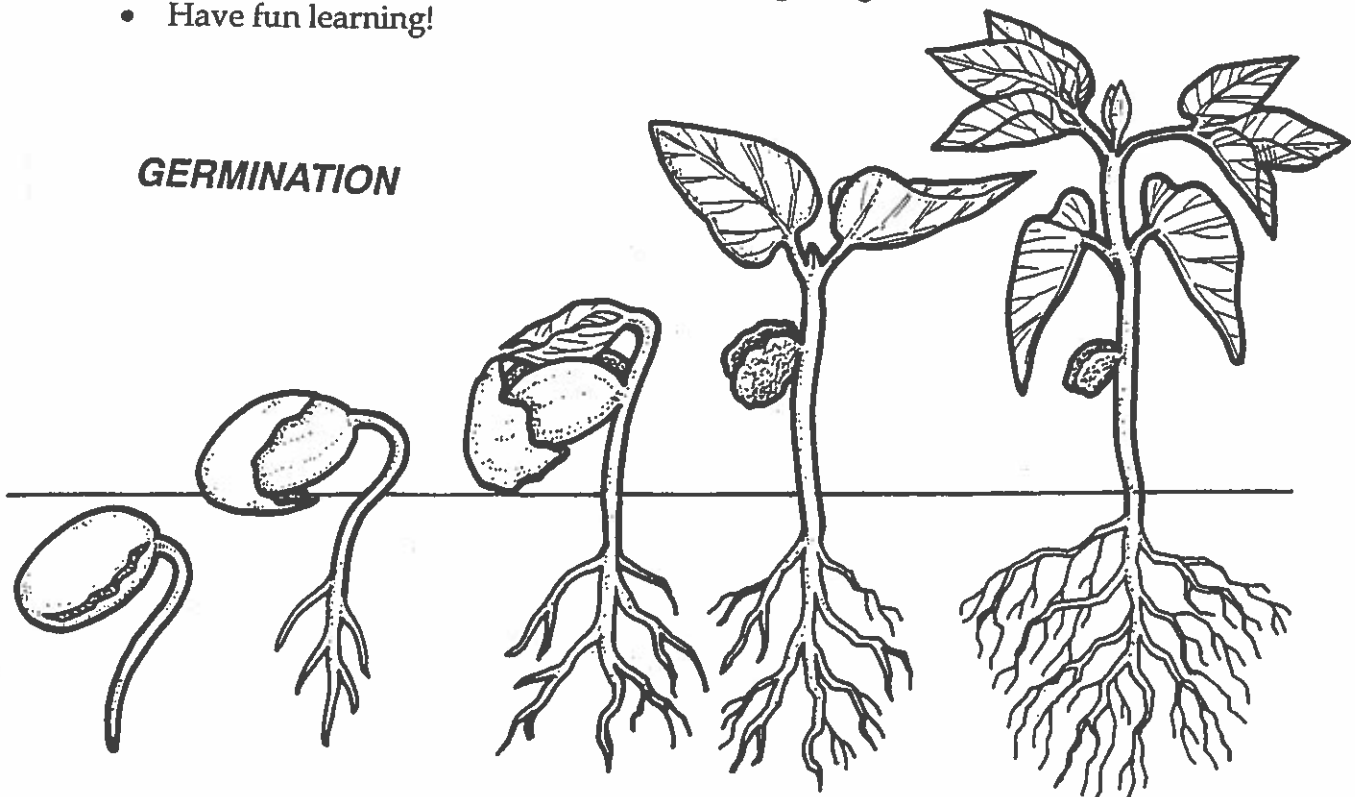


Plant Journal Outline

1. Clearly and neatly document the date of each entry.
2. Measure the bean seed's stem and root length and record daily/ often.
3. Write in complete, explanatory sentences your observations of current growth (for example: two dark emerald sized leaves about 1.5 cm....).
4. Be specific and use technical terms to describe key features: seed coat, helium, primary roots, or secondary roots.
5. If there is no change or root rot, do describe what factors may be contributing to the current state of germination (too much water, not enough direct sunlight, bean seed wasn't placed securely into the paper towel etc).
6. Describe what you do each day, or what changes need to be made, plans of what you may try, ex. how often you water it, etc.
7. Draw, colour the changes each day neatly and use space wisely.
8. Every entry must have keen observations, an illustration, a date, complete sentences that show significant documentation of your seed's germination process.
9. Be sure to chart the growth of the stems and roots in centimeters.

Guidelines

- each entry is worth 5 marks (date, illustration, and descriptive observations)
- there must be at least 12 entries so if you are away, you need to arrange for a friend to care for your bean seed and you need to be responsible in documenting observations to complete entries outside of classroom time.
- Be respectful of your bean seed, it is a living thing!
- Have fun learning!





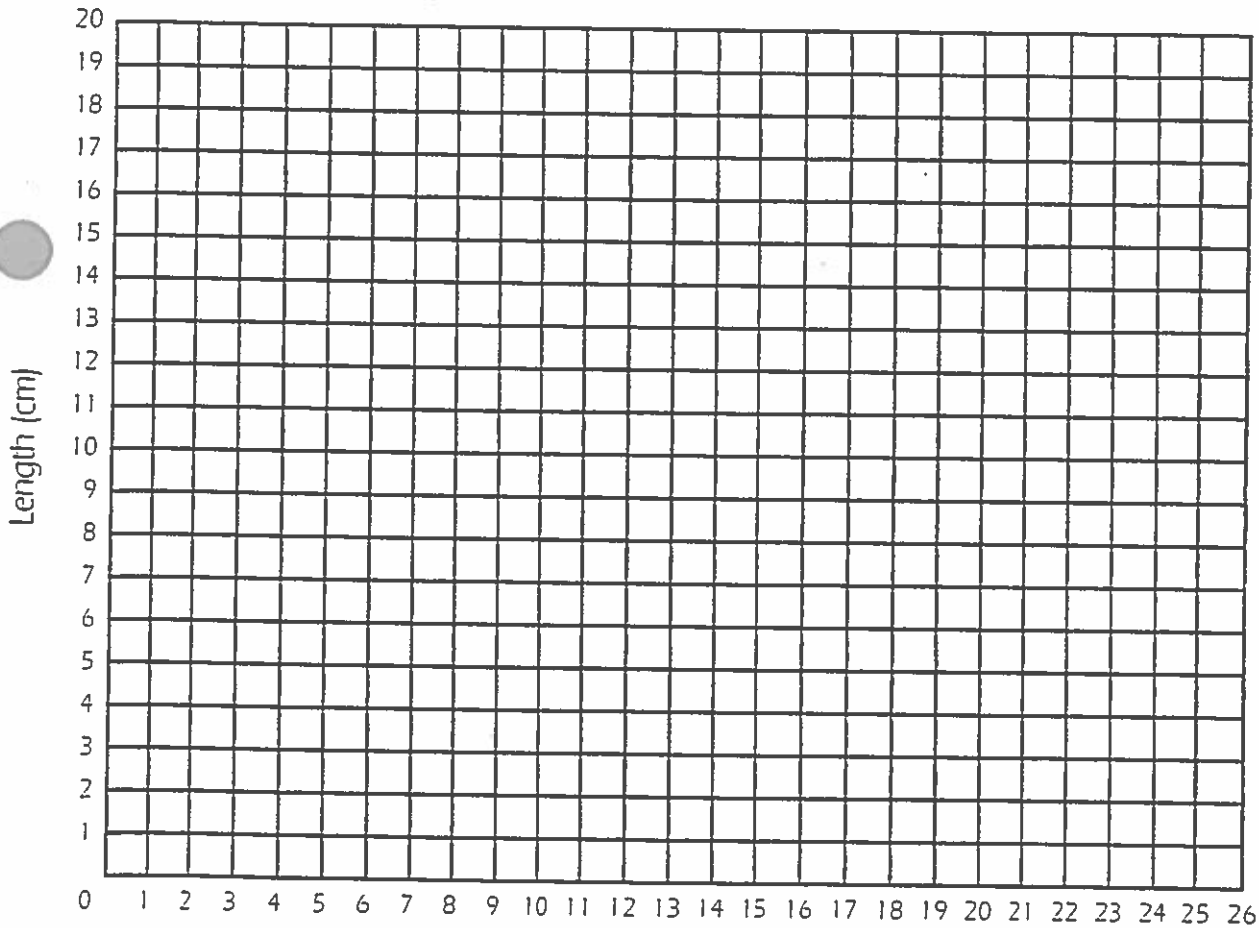
SEEDLING GROWTH

How quickly do you grow? Does your doctor or the school nurse keep a chart of your growth? Do you grow an inch a week? A month? A year? Do you grow as fast as a plant grows? Keep a record of a seedling's growth and compare it to yours.

ACTIVITY

Choose a seed in jar #1 and carefully measure it each day. You may wish to put a mark on the jar by the seed you choose so you are sure you measure the same one each day. Measure the root and measure the stem. Which started growing first? Keep records of your measurements and transfer them to the graph below. Use one color pencil for the root and another color for the stem.

Growth Of _____ Seedlings



Days



Color Key

- _____ Root
- _____ Stem

12

13

14

15