

SCIENCE SUMMER 2 WEEK 3, 4 and 5

Today we will be beginning a science investigation that will span the next three weeks.

You will need: x3 germinated broad bean seeds (or similar).

Learning Objectives:

I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

I can ask simple questions and recognise that they can be answered in different ways.

I can make observations and perform simple tests.

What do you remember about what plants need in order to grow well?

Talk about most plants needing water, light and warmth to grow well.

Do you think that each one is of the same importance or is one more important than another?

Today we are going to begin an experiment to find out what plants need most to survive. We are going to test what happens when we take away light, warmth and water. However, to make this a fair test, this will need to be carried out as three separate experiments.

Experiment 1: Germinated seed will have warmth and light, but no water.

Experiment 2: Germinated seed will have light, water but no warmth (keep this one in the fridge).

Experiment 3: Germinated seed will have water and warmth but no light.

Explain that by changing just one criteria for each germinated seed, it will be a fair test.

**Activity:** Fill in your predictions for what you think will happen for each plant in each experiment. You can use the sheet below or copy it into your books.

**Activity:** Every few days observe each of the broad bean plants. Look at the colour, height, leaves, stem and write down what you notice underneath your drawing.

**Activity:** Write your conclusion. Can you confirm what plants need in order to grow?

There are a few interesting clips about plant growth on the bbc bitesize website.

<https://www.bbc.co.uk/bitesize/clips/zcn9j6f>

An investigation to find out what plants need to grow

Predictions:

What I think will happen to the plant that has warmth and light, but NO WATER:

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What I think will happen to the plant that has light and water but NO WARMTH:

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What I think will happen to the plant that has light and water but NO WARMTH:

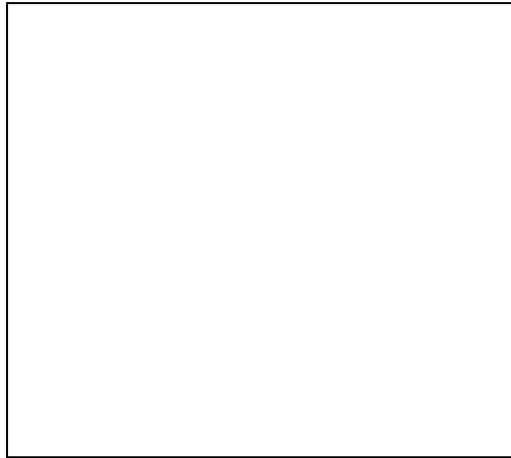
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Observations of Plant 1 (warmth and light, but no water):

Date \_\_\_\_\_



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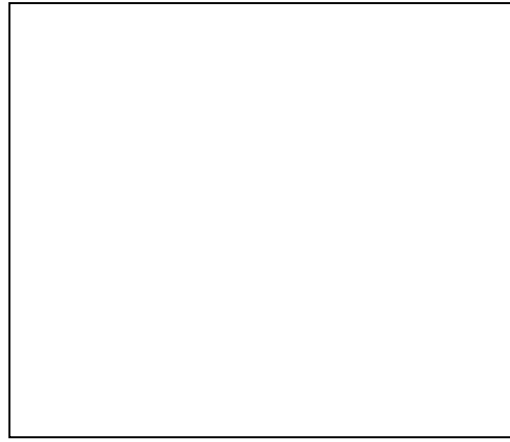
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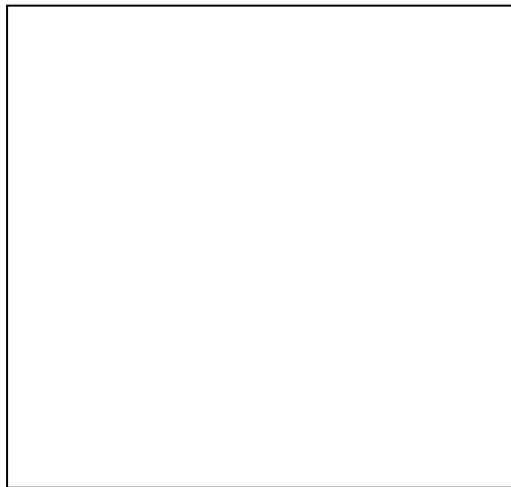
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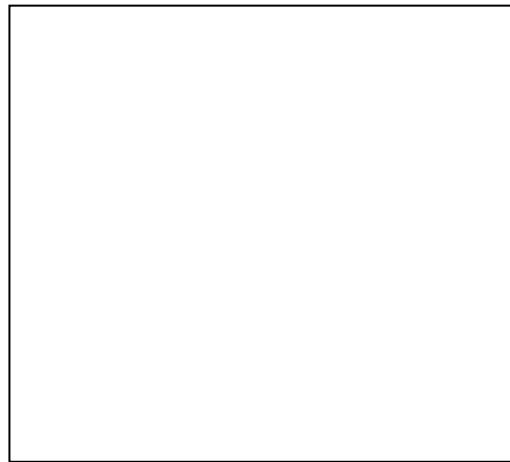
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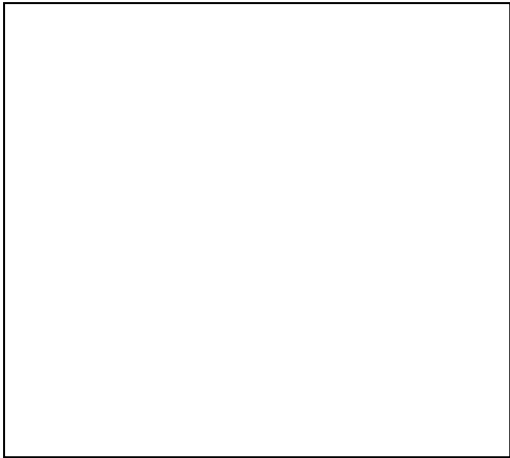
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Observations of Plant 1 (light and water, but no warmth):

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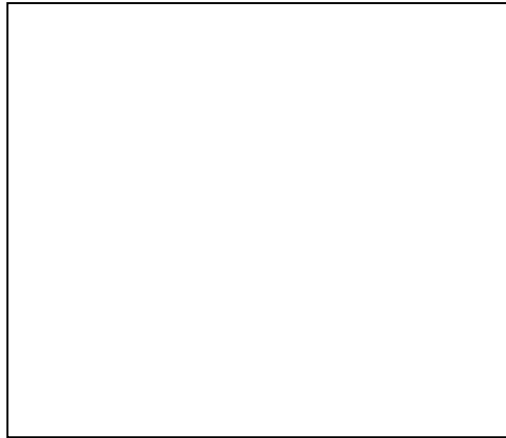
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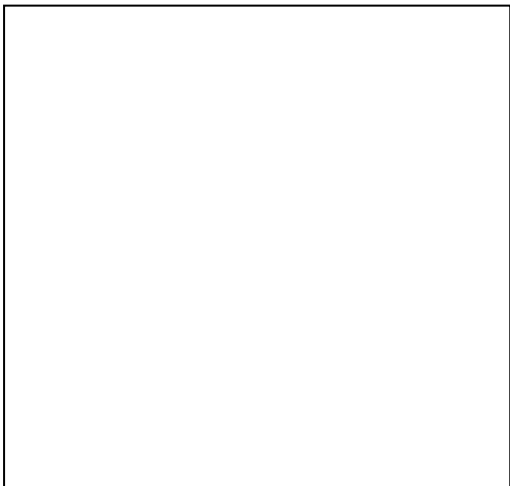
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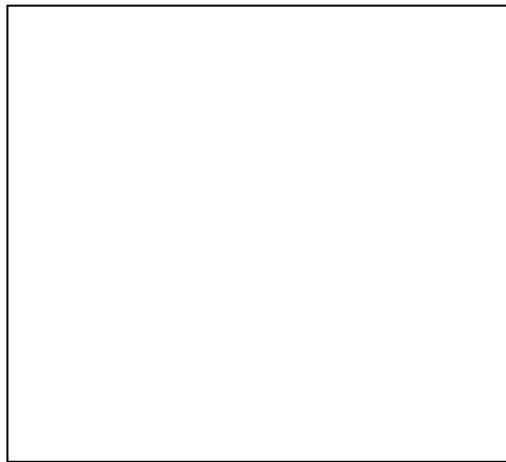
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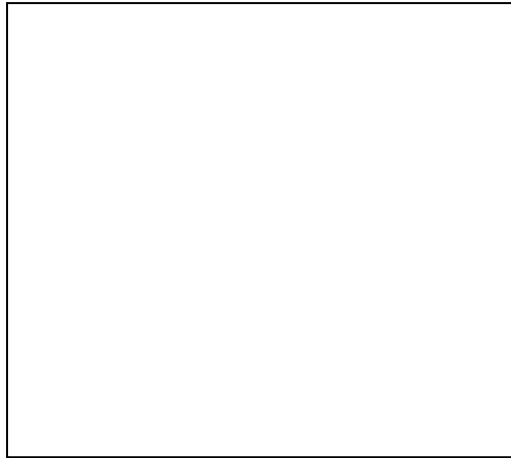
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Observations of Plant 1 (light and water, but no warmth):

Date \_\_\_\_\_



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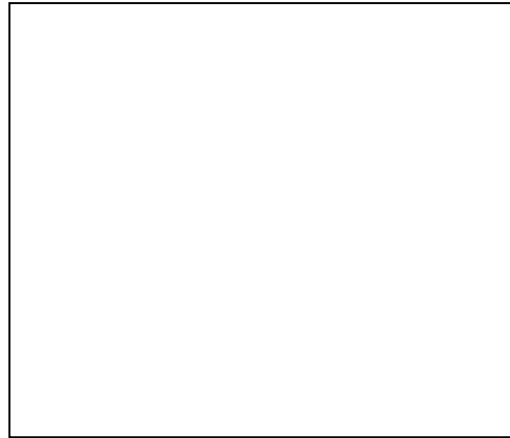
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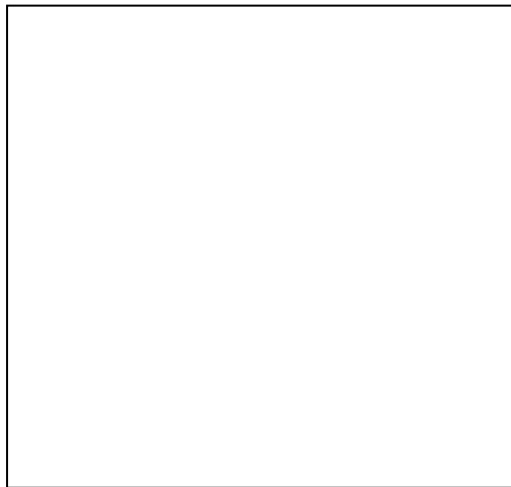
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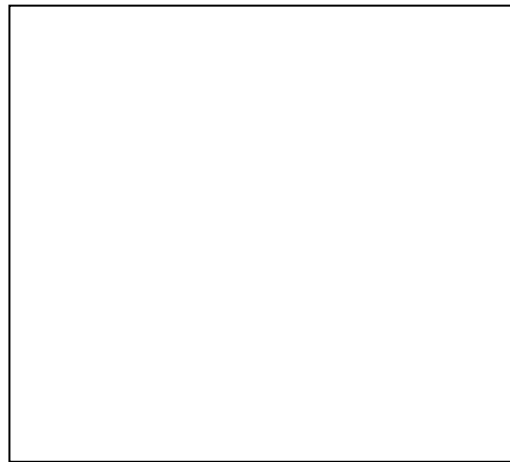
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Conclusion:

What plants need to grow: \_\_\_\_\_

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