

Mission Assignment: Explain how plants gain minerals, nutrients and water

















Investigate the effect of fertiliser on plant growth

Method:

- 1. Get eight plants of the same type and roughly the same size and two trays. Place four plants in each tray.
- 2. Within each tray, label the plants A-D.
- 3. Measure the height of each plant (base to the tallest point).
- 4. In the first tray, water each plant with water containing a soluble fertiliser.
- 5. In the second tray, water the plant with water only.
- 6. Allow to grow for two weeks, watering as necessary as per steps 4-5.
- After two weeks, record the heights of each plant in the **7**. table.

Equipment

- 1. Eight small plants
- 2. Two trays
- 3. Labels
- 4. Soluble fertiliser
- 5. Ruler
- 6. Graph paper

Percentage increase = Increase in height/start height x 100%

| | Plant | Start height (cm) | Height after 2 weeks (cm) | Increase in height after 2 weeks (cm) | Percentage increase in height after two weeks (%) |
|----------------------------------|-------|----------------------|------------------------------|---|--|
| Watered with fertiliser | Α | | | | |
| | В | | | | |
| | С | | | | |
| | D | | | | |
| Watered without fertiliser | Α | | | | |
| | В | | | | |
| | С | | | | |
| | D | | | | |

| Now draw a graph which shows your results. Think about: |
|---|
| What type of graph will show your data the best? |
| How will you show multiple data sets on one graph? |
| What information will you chose to plot? |



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- **7**. After two weeks, record the heights of each plant in the table.

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| | D | | | | |
| Watered without fertiliser | Α | | | | |
| | В | | | | |
| | С | | | | |
| | D | | | | |

Now draw a graph which shows your results. Think about:

What type of graph will show your data the best? Bar chart

How will you show multiple data sets on one graph? Use coloured bars

What information will you chose to plot? Fertiliser (x) against percentage increase (y)