

Analysing Investigations

1. Match each of the following terms with the correct meaning.

Term	Meaning
1. Variable	A How exact the measurements are in an experiment
2. Dependent variable	B The number of plants, animals or other items used in an experiment
3. Independent variable	C The variables that must be kept constant in an experiment
4. Controlled variables	D Whether the experiment actually tests what it is supposed to test
5. Sample size	E The variable that is deliberately changed in an experiment
6. Reliability	F Name given to each repetition of an experiment
7. Accuracy	G Whether the experiment produces similar results when it is repeated
8. Validity	H Something that can be changed in an experiment
9. Trial	I The variable that is measured in an experiment

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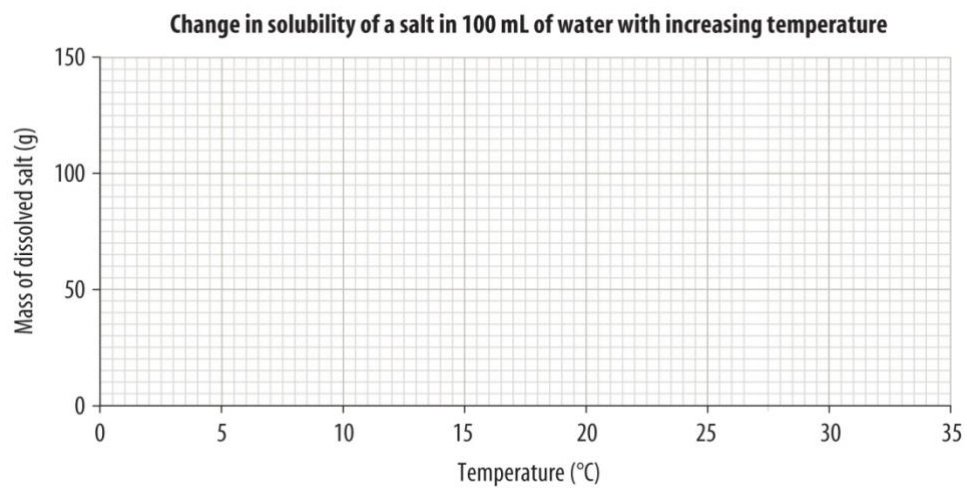
2. Copy and complete the table below. The first line has been completed as an example.

Hypothesis	Independent variable	Dependent variable	Controlled variable(s)
Plants grow faster when it is hot.	Temperature	Height of plant	Plant species, amount of water, soil type
Exercise increases the breathing rate.			
Sugar dissolves faster in hot water than in cold water.			
The more you water plants, the faster they grow.			

3. (a) Construct a line graph using the following data.

Change in solubility of a salt in 100 mL of water with increasing temperature

Temperature (°C)	Mass of dissolved salt (g)
0	25
5	39
10	52
15	68
20	85
25	100
30	120



- (b) How much salt will dissolve at 18°C?

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- (c) Using the graph you just constructed, predict the amount of salt that will dissolve at 35°C.

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