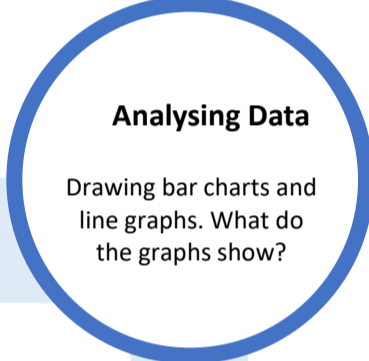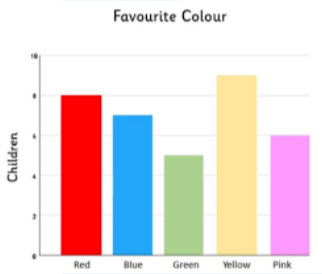# BIOLOGY: Working scientifically
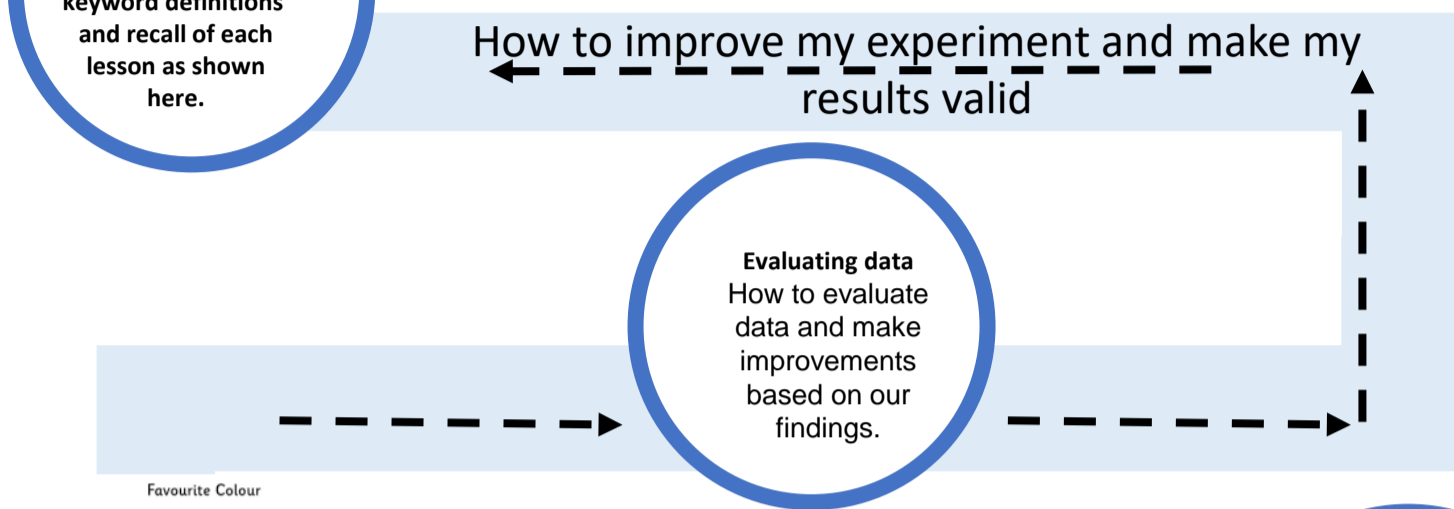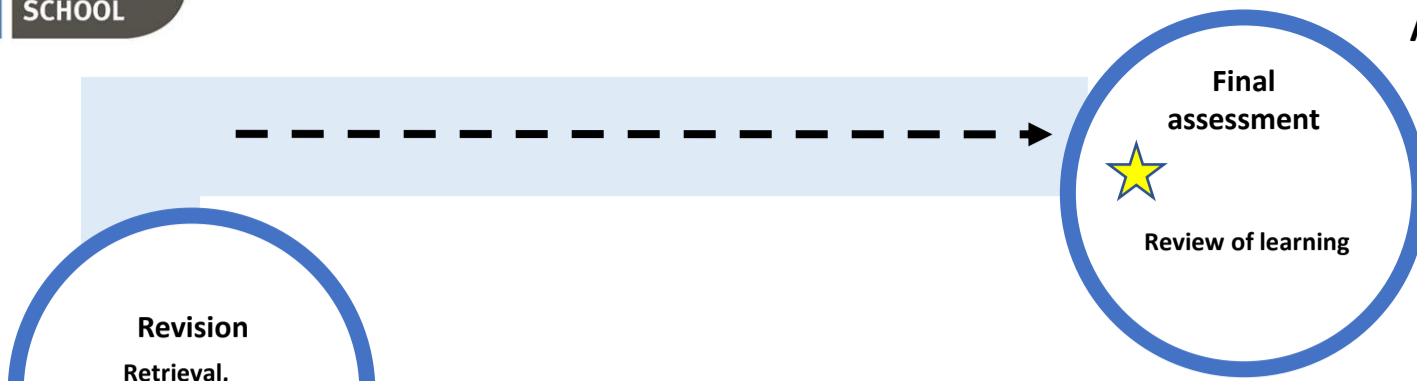
Assessment = ⭐

Apply: In all topics

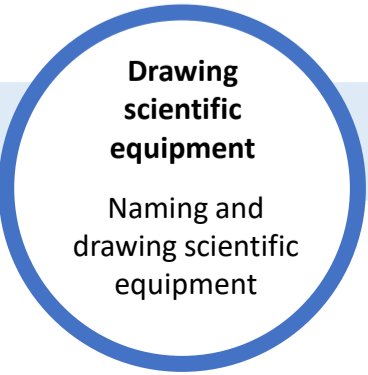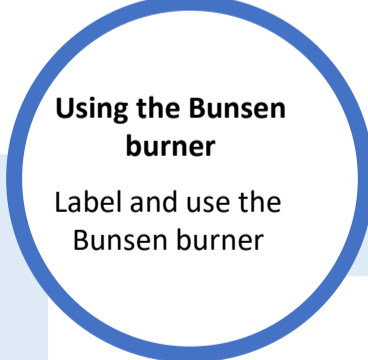**Make sure you can write definitions for these key terms.**

Observation, investigation, data, variable, independent variable, dependent, variable, control variable, prediction, plan, accurate, precise, spread, uncertainty, repeatable, reproducible, continuous, discrete, categoric, range, risk assessment, outlier, mean, line graph, bar chart, pie chart, analyse, line of best fit, conclusion, evaluate, confidence, random error, systematic error
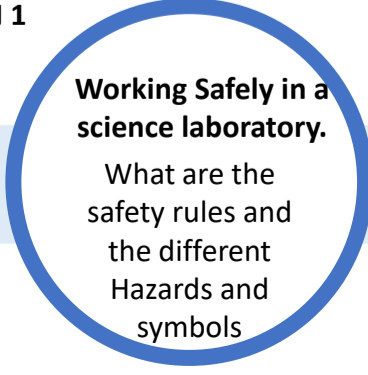
Key terms

Final assessment

⭐

Review of learning

Revision

Retrieval, keyword definitions and recall of each lesson as shown here.

How to improve my experiment and make my results valid

Evaluating data
How to evaluate data and make improvements based on our findings.

Favourite Colour

Analysing Data

Drawing bar charts and line graphs. What do the graphs show?
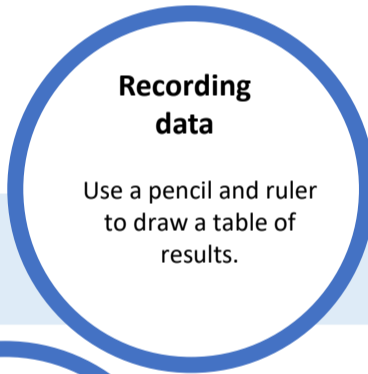
Independent Variable (Unit)	Dependent Variable (Unit)			
	Test 1	Test 2	Test 3	Average
0.0	0.0	0.0	0.0	0.0
1.0	0.5	0.4	0.9	0.6
2.0	1.5	1.2	1.2	1.3
3.0	1.7	1.8	1.9	1.8
4.0	2.5	2.1	2.3	2.3
5.0	3.1	3.2	2.7	3.0

Recording data

Use a pencil and ruler to draw a table of results.

Planning an investigation
Choose your independent variable and how to plan a safe experiment to make a conclusion.

Asking scientific questions

Identify independent, dependent and control variables

Working safely: tie hair back, mop up spills, use glass equipment carefully, don't burn yourself by touching hot equipment

Using the Bunsen burner

Label and use the Bunsen burner

LESSON 1

Drawing scientific equipment

Naming and drawing scientific equipment

Working Safely in a science laboratory.

What are the safety rules and the different Hazards and symbols

Retrieve how to make an experiment fair, scientific equipment, graph drawing and working safely.

100 ml