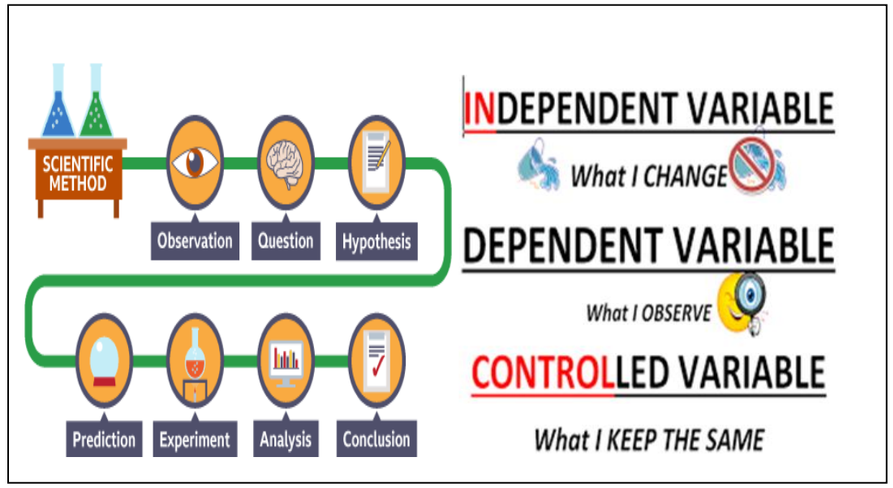
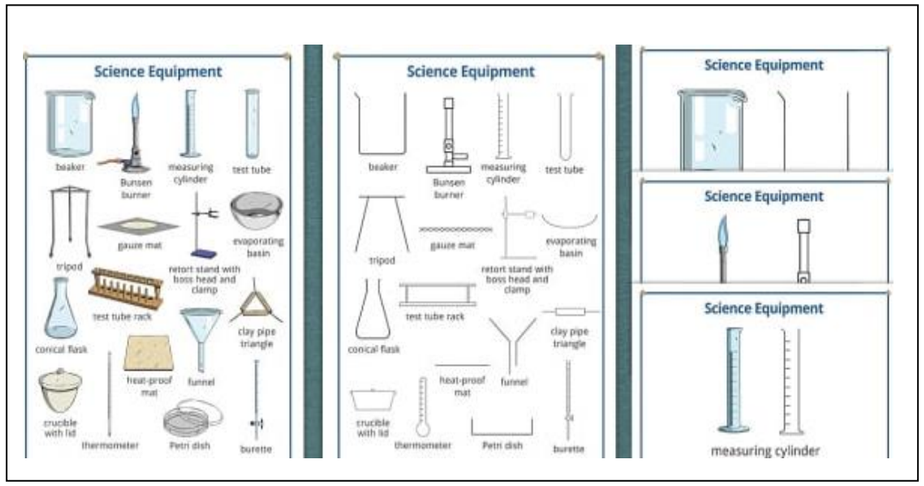
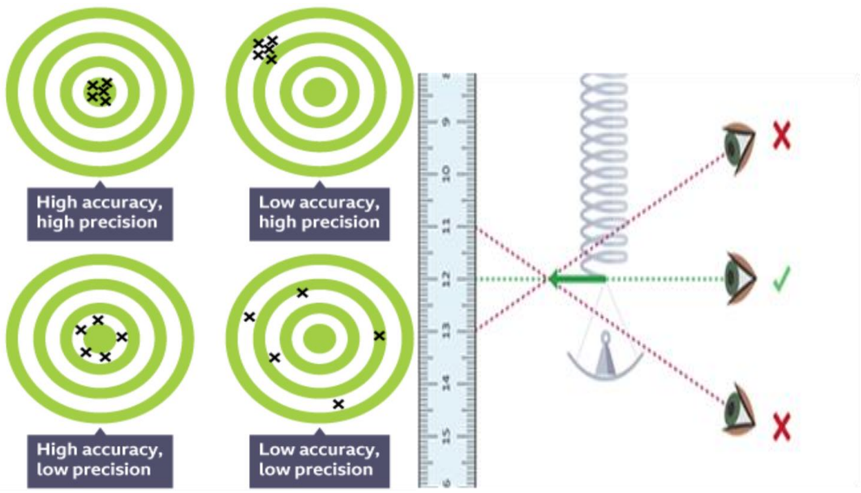
KS3 – Year 9 – Enquiry Processes 1

Key Vocabulary	
Tier 1	
Question	A testable scientific enquiry that can be investigated through observation or experimentation
Idea	A scientific concept or explanation that can be explored or tested
Guess	An untested suggestion about what might happen, made without supporting evidence
Test	A procedure carried out to investigate a question or phenomenon
Change	To alter a factor (variable) in an investigation in order to observe its effect.
Tier 2	
Prediction	A statement suggesting what will happen in an investigation based on prior knowledge.
Hypothesis	A testable scientific explanation or idea that can be supported or refuted by evidence.
Evidence	Data and observations that are used to support or challenge a conclusion
Pattern	A trend or relationship observed in data
Outcome	The result or effect observed in response to changing variables in an investigation
Tier 3	
Variables	Factors in an investigation that can change, measured or be controlled
Fair test	An investigation in which only the independent variable is changed.
Accuracy	The closeness of a measurement to the true expected value
Reliability	The extent to which results are consistent and can be repeated or reproduced.
Precision	The level of detail in a measurement, usually determined by the instrument used.







Career Links

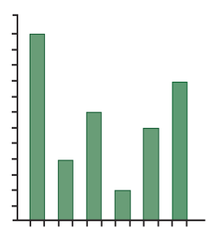
Engineer, Pharmaceutical scientist, Forensic scientist, Climate scientist, Market researcher, Quality control analyst, Medical researcher, Science journalist, Epidemiologist, Surveyor, Lab technician, Meteorologist, Pilot, Safety inspector.

Homework

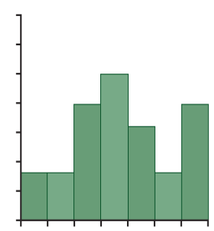
Insert sparkx codes for the unit

Key Knowledge

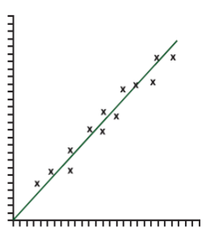
- Scientific knowledge changes as new evidence is discovered.
- Investigations must be planned carefully to be fair and reliable.
- A fair test changes only one variable and keeps the others the same.
- Safety rules in the lab help prevent accidents and include wearing goggles, using equipment properly, and following instructions.
- Accurate measurements require the correct equipment and clear units.
- Data should be recorded clearly in tables or charts. Graphs help show patterns and trends in results.
- Anomalies are results that don't fit the pattern and may need checking.



When one of our variables is discrete, we draw a bar chart.



When continuous data is grouped into categories, we draw a histogram.



When both variables are continuous, we draw a scatter graph.