Scientific Enquiry — KNOWLEDGE ORGANISER
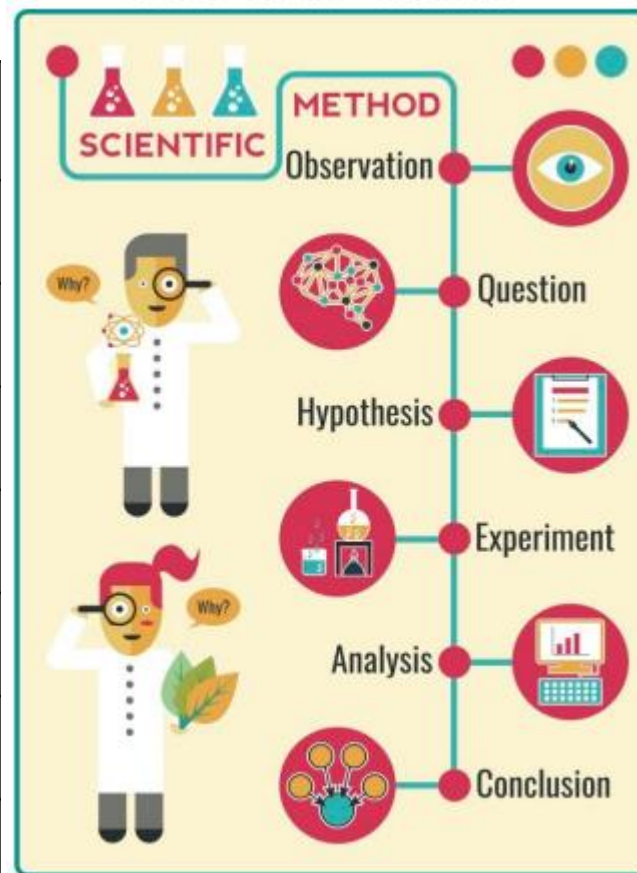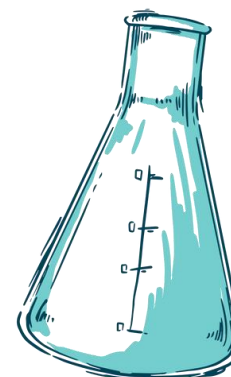
ESSENTIAL FORCES AND MAGNETS VOCABULARY

scientific investigation	finding answers to questions using research methods
prediction	explaining what you think might happen
plausible	having a reason
record	writing the measurement of something
data	a set of facts or numbers used to learn about something
method	instructions for carrying out an experiment
control experiment	an experiment that is used to compare other experiments where there are variables
equipment	tools or items that are needed
enquiry	a question to find something out
practical	the performing of a scientific experiment
conclusion	the end result or outcome
fair test	where one variable is changed and all other elements are kept the same
position	a place where something is located
motion	action or process of moving
material	anything used to make something else

SCIENTIFIC METHOD
- Observation
- Question
- Hypothesis
- Experiment
- Analysis
- Conclusion

FAIR TEST
Where one variable is changed, and all other elements are kept the same.

CONTROL EXPERIMENT
An experiment that is used to compare other experiments where there are variables

VARIABLE
Something that is changed.

MAKING LINKS TO PREVIOUS LEARNING
GOLDEN VOCABULARY

Light (Y3)	You can move an object to a new **position**.
Forces and Magnets (Y2)	Move in a forwards or backwards **motion**.
Uses of everyday materials (Y2)	Pieces of clothing are made out of a **material**.

The Scientific Method

Comparative / fair testing
Changing one variable to see the effect on another, whilst keeping all others the same.

Research
Using secondary sources of information to answer scientific questions.

Observation over time
Observing changes that occur over a period of time, ranging from minutes to months.

Pattern-seeking
Identifying patterns and looking for relationships in enquiries where variables are difficult to control.

Identifying, grouping and classifying
Identifying observations to name, sort and organise items.

Problem-solving
Applying prior scientific knowledge to find answers to problems.