

LKS2 Science Knowledge Organiser: Scientific Enquiry

3 BIG IDEAS

Curiosity

I can ask questions and make predictions about how a solar oven can be made more powerful.

Investigation

I can plan and carry out an investigation to follow a line of enquiry.

I can plot and record the results of my investigation.

Explanation

I can explain what I have found.

I can draw conclusions from my investigation to answer my line of enquiry.

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

solar panels - panels which capture energy from the sun

temperature - the measure of the warmth or coldness of an object or material

material - the matter or substance that objects are made from

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

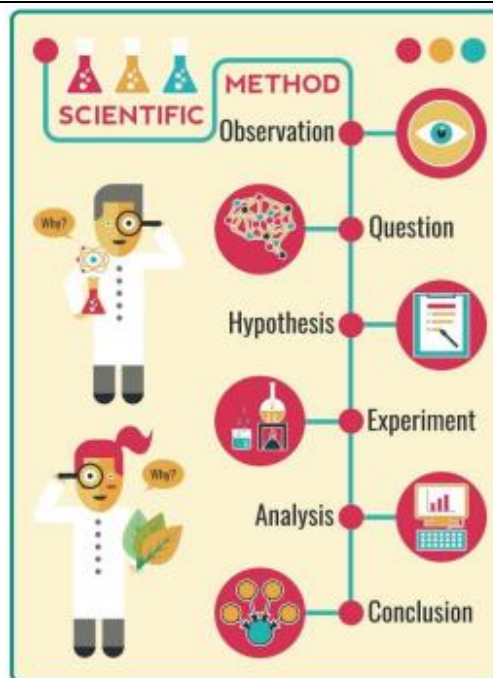
Identifying patterns and looking for relationships in enquiries where variables are difficult to control.

Identifying, grouping and classifying

Identifying observations to name, sort and organise items.

Problem-solving

Applying prior scientific knowledge to find answers to problems.



fair test - where one variable is changed, and all other elements are kept the same

variable - something that is changed

control experiment - an experiment that is used to compare other experiments where there are variables

The pH Scale

