

* IDENTIFY THE PROBLEM

→ WHAT DO YOU WANT TO FIND OUT?

* WRITE A HYPOTHESIS THAT CAN BE TESTED

e.g. IF A GUMMY BEAR IS IMMERSSED IN WATER, THEN IT WILL INCREASE IN SIZE

* METHOD

- HOW YOU WILL CARRY OUT YOUR INVESTIGATION
- ALL EQUIPMENT USED SHOULD BE MENTIONED
- THE VARIABLES CONTROLLED, CHANGED & MEASURED SHOULD BE MENTIONED

* VARIABLES *

CONTROLLED
(WHAT YOU KEEP THE SAME)

DEPENDENT
(WHAT IS MEASURED)

INDEPENDENT
(WHAT YOU CHANGE)

* CARRY OUT THE INVESTIGATION

→ ALWAYS OBSERVE SAFETY RULES!

* OBSERVE, MEASURE & RECORD DATA

→ WHAT DO YOU SEE, SMELL, TASTE, TOUCH, HEAR?

→ MEASURING LENGTH, WEIGHT, HEIGHT etc...

→ RECORD DATA IN A TABLE - MAKE SURE YOU HAVE UNITS! e.g (g), minutes

* DATA CAN BE QUALITATIVE (WORDS) OR QUANTITATIVE (NUMBERS)

STEPS IN INVESTIGATING

PLANNING THE INVESTIGATION

CONDUCTING THE INVESTIGATION

EVALUATING THE INVESTIGATION

PROCESSING THE DATA

* HOW COULD YOU MAKE YOUR EXPERIMENT BETTER?

BETTER EQUIPMENT?

REPEAT THE EXPERIMENT?

INCREASES RELIABILITY!

IS YOUR CONCLUSION VALID?

* DID YOUR EXPERIMENT ANSWER YOUR HYPOTHESIS?

* ORGANISING DATA

CALCULATIONS

AVERAGES

PERCENTAGES

GRAPHS

LINE GRAPH

BAR GRAPH

* SPOTTING A PATTERN IN THE DATA

e.g. AS THE VOLUME OF WATER INCREASES, PLANT GROWTH INCREASES

* EXPLAINING THE RELATIONSHIP FOUND USING SCIENCE!