Variables Identification Cards

INDEPENDENT VARIABLE

The variable you change or manipulate.

Example:
Temperature of water

DEPENDENT VARIABLE

The variable you measure or observe.

Example:
Time for the tablet to dissolve

CONTROLLED VARIABLES

The variables you keep the same to ensure a fair test.

Examples:
- Volume of water
- Size of tablets
- Type of container

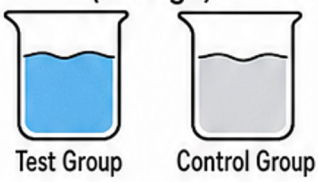
CONSTANT

A controlled variable that is kept the same throughout the investigation.

Example:
Keep the water volume at 100 mL

CONTROL GROUP

The group that does not receive the independent variable (change).



Example:
No fertiliser added

EXPERIMENTAL GROUP

The group that receives the independent variable (change).

Example:
Fertiliser added

OPERATIONAL DEFINITION

A clear description of how a variable is measured or observed.

Example:
Measure time using a digital stopwatch in seconds.

QUALITATIVE VARIABLE

A variable that is described using words or categories, not numbers.

Example:
Plant colour (green, yellow, brown)

QUANTITATIVE VARIABLE

A variable that is measured and expressed using numbers.

Example:
Mass of object (in grams)

Good investigations change one variable at a time, measure carefully, and keep everything else the same!