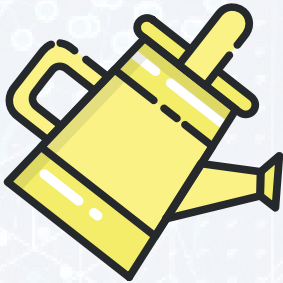# THE THREE VARIABLES

In science, we use variables to help us understand how different factors can affect an experiment or situation. There are three main types of variables: independent, dependent, and control.

INDEPENDENT VARIABLES

The independent variable is one that we can change in an experiment. For example, if we are testing how different amounts of water affect plant growth, the amount of water would be the independent variable. We can change how much water we give the plants to see how it affects their growth.

DEPENDENT VARIABLES

Dependent variable is the factor that we observe or measure in an experiment. In the plant example, the dependent variable would be the plant's growth. We are measuring the plant's growth to see how it is affected by the different amounts of water.

CONTROL VARIABLES

The control variable is the factor that we keep the same in an experiment. This helps us make sure that any changes we see in the dependent variable are due to the independent variable, and not something else. For example, in the plant experiment, we might keep the type of soil, the type of plant, and the amount of sunlight all the same so that we can be sure that any changes in plant growth are due to the different amounts of water we are giving them.

By using variables in our experiments, we can better understand how different factors can affect different outcomes.