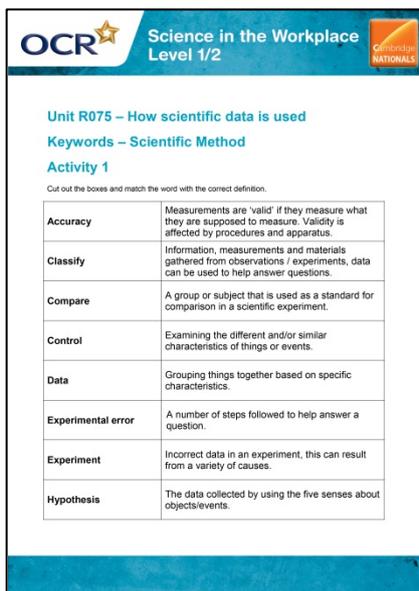


Unit R075 – How scientific data is used

Keywords – Scientific Method

Instructions and answers for teachers

The activities below cover LO4: Be able to communicate scientific information



OCR Science in the Workplace Level 1/2

Unit R075 – How scientific data is used
Keywords – Scientific Method
Activity 1

Cut out the boxes and match the word with the correct definition.

Accuracy	Measurements are 'valid' if they measure what they are supposed to measure. Validity is affected by procedures and apparatus.
Classify	Information, measurements and materials gathered from observations / experiments, data can be used to help answer questions.
Compare	A group or subject that is used as a standard for comparison in a scientific experiment.
Control	Examining the different and/or similar characteristics of things or events.
Data	Grouping things together based on specific characteristics.
Experimental error	A number of steps followed to help answer a question.
Experiment	Incorrect data in an experiment, this can result from a variety of causes.
Hypothesis	The data collected by using the five senses about objects/events.

Associated files:

Units Card Sort (activity)

Activity 1 – approx. 30 mins



This activity offers an opportunity for English skills development.

In this activity learners complete a card match exercise containing all the correct and relevant words they should use in their scientific write ups and reports.

Activity 1

Accuracy	A measurement of how close the reading is to the true value
Classify	Grouping things together based on specific characteristics.
Compare	Examining the different and/or similar characteristics of things or events.
Control	A group or subject that is used as a standard for comparison in a scientific experiment.
Data	Information, measurements and materials gathered from observations/experiments, data can be used to help answer questions.
Experimental error	Incorrect data in an experiment, this can result from a variety of causes.
Experiment	A test using observations and variables to discover answers to questions, and/or to check a hypothesis.
Hypothesis	A testable explanation for observations and questions.
Methods	An ordered series of steps followed to help answer a question.
Observation	The data collected by using the five senses about objects/events.
Precision	The closeness between measured values obtained by repeated measurements.
Prediction	A statement made about the expected outcome of an experiment based on past experiences/observations.
Procedure	A number of steps followed to help answer a question.

Qualitative data	Data that is based on observable characteristics of things/events.
Quantitative data	Data that is based on measurable features of things/events such as mass, volume, length, and quantity.
Repeatability	A measurement is repeatable if the same/similar results can be obtained when repeating the measurements under the same conditions.
Scientific theory	An explanation for patterns in nature that is supported by scientific evidence which is based on data collected using scientific methods.
Validity	Measurements are 'valid' if they measure what they are supposed to measure. Validity is affected by procedures and apparatus.
Variation	Differences between objects, organisms or events that are all of the same basic type eg members of the same species.
Variable	Something that can affect something being tested, and is therefore a factor that may change in an experiment.
Variable, control	A factor that is controlled/kept the same in an experiment.
Variable, dependent	A factor that is measured in an experiment.
Variable, independent	A factor that can be changed in an experiment by the scientist.

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OCR Resources: the small print

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