Assessment Date://	Student:		Examiner:
Words Read Correctly (WRC):	_ Errors:	Notes:	

Scientific Investigation Skills

In order to conduct a fair science experiment, we must be able to make a 15 hypothesis and understand the concept of variables. There are three different 26 36 types of variables involved in a science experiment: independent variables, dependent variables and controlled variables. An example of an experiment 46 where we might see all of these things in practice is testing the growth of plants 62 under different conditions. 65 A hypothesis is a statement (not a question) of what you believe will happen. 79 For example: the plant in the salty soil will grow the least amount. 92 104 Independent variables are the part of the science experiment that we change (input). For example, if we were testing the growth of different plants, we might 118 change the soil to dry, soil with water and soil with salt in it. 132 144 Dependent variables are the thing that we measure, because they depend on what you change. We might measure the height our plants grow in 156 centimetres. 157 Controlled variables are all of the parts of the experiment that we keep the 171 same, to make it a fair test. We must keep everything other than the 185 independent variable exactly the same, for example the amount of soil, type 197

and size of plant, type and size of container, position and amount of sunlight.

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A hypothesis is a statement (not a question) of what you believe will happen. For example: the plant in the salty soil will grow the least amount.

Independent variables are the part of the science experiment that we change (input). For example, if we were testing the growth of different plants, we might change the soil to dry, soil with water and soil with salt in it.

Dependent variables are the thing that we measure, because they depend on what you change. We might measure the height our plants grow in centimetres.

Controlled variables are all of the parts of the experiment that we keep the same, to make it a fair test. We must keep everything other than the independent variable exactly the same, for example the amount of soil, type and size of plant, type and size of container, position and amount of sunlight.