

2A Aim & Hypothesis

Do candidates have to provide a null hypothesis to gain the aim/hypotheses mark?

No. A null hypothesis is not required but candidates must explicitly state a testable hypothesis in their introduction.

Example aims

Example 1

To determine how caffeine affects heart rate in *Daphnia*.

Example 2

The aim of this investigation is to test the effect of salt concentration on the proportion of brine shrimp cysts that hatch.

Example 3

To investigate the level of the protease actinidin in kiwi fruits at different stages of ripeness.

Example 4

To find out if light intensity affects photosynthesis in *Scenedesmus*.

Example 1

The candidate was awarded **0 out of 1 mark**. The independent variable has not been clearly stated. The candidate is altering the concentration of caffeine; this must be stated.

The aim must clearly state both variables being investigated. The coursework assessment task document provides guidance on construction of an aim.

Note that teachers and lecturers must not provide an aim.

Example 2

The candidate was awarded **1 out of 1 mark**. This is a clearly stated aim, which makes clear the relationship between the two variables being investigated (salt concentration and proportion of brine shrimps that hatch).

Alternative ways that the candidate might have chosen to express this aim, for example, success of hatching, would also be acceptable.

Example 3

The candidate was awarded **1 out of 1 mark**. This is a clearly stated aim, which makes clear the relationship between the two variables being investigated (stages of ripening and level of the protease actinidin in kiwi fruit).

Example 4

The candidate was awarded **0 out of 1 mark**. 'Photosynthesis' is vague, so it isn't clear enough what is being investigated. The candidate is measuring the rate of photosynthesis, so this must be stated.

The aim must clearly state both 'cause' and 'effect' variables. The coursework assessment task document provides guidance on the construction of an aim.