smarter science / éduca sciences

Investigation Design and Perform

Step 1: Observing & Questioning

Place sticky notes of the same colour in the space below.

Place sticky notes of a new colour in the space below.

WHAT DID I OBSERVE?

(What do you notice about the object or event? Use your senses to describe the object or event.)

WHAT AM I WONDERING?

(What questions or predictions do you have about the object or event?)

How can the questions be answered?
(Question Sort)

LABELLED DIAGRAM:

Level: 2

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Experiment Design and Perform

Step 2(a): **What could I measure or observe about the object, or event?**

Brainstorm (Place sticky notes of the same colour in the space below.)

Possible Dependent Variables

Step 2(b): **What could I change or vary about the object or event that may affect what I could measure or observe?**

Brainstorm (Place sticky notes of a new colour in the space below.)

Variables

Level: **2**

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Step 3(a): What will I change?

ONE VARIABLE I WILL CHANGE:

I WILL MEASURE OR OBSERVE THIS RESULT:

Independent Variable

(Place a sticky note from Step 2(b) here)

Dependent Variable

(Place a sticky note from Step 2(a) here)

Step 3(b): What will I not change?

VARIABLES I WILL NOT CHANGE:

What conditions will be held constant so it is a fair test? Place remaining sticky notes from Step 2(b) here.

Controlled Variable

Controlled Variable

Controlled Variable

Controlled Variable

Controlled Variable

Controlled Variable

Level: 2

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Step 4: **What is the question I want to explore?**

IF I CHANGE [Independent Variable] **WHAT WILL HAPPEN TO** → (Dependent Variable)

COMPARED TO THE CONTROL?

Step 5: **What is my hypothesis (what and why)?**

BASED UPON MY QUESTION, I PREDICT THAT:

if the _____ is _____
  Independent Variable   How the independent variable will be changed
                                    (e.g. increased or decreased, heated or cooled, stirred or not stirred…)

then the _____ will _____
  Dependent Variable   How the dependent variable will be affected
                                  (e.g. increased or decreased, heated or cooled, stirred or not stirred…)

I think this will happen **because** _____

_____

_____

_____

_____

_____ .

Level: 2

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