

Science 10

Name:

Block:

### Scientific Method Scenarios

**Task:** Either individually or in groups of 2-3 you are to create your own scientific scenario using either real people (friends/teachers/family) or fictional characters (characters from T.V./novels/comics etc). Remember to be respectful.

#### Part One: Scenario (7 marks)

Written description of your scenario should have the following:

1. Title
2. Include the initial problem
3. Description of the scenario
4. Control, Independent and Dependent variable
5. Results of the experiment
6. Insert an image that is about your experiment

#### Part Two: Questions and Answers (6 marks)

A) Write out the following questions (or slight variations depending on your scenario) in black.

1. What was the initial observation (problem)?
2. What was the control?
3. What was the independent variable?
4. What was the dependent variable?
5. What conclusion should be made about the investigation?
6. How could the experimental design be improved? (Minimum of 2 ideas)

B) Copy the questions once again under your set of questions and label it "Answers"

C) Answer the questions in **red ink** on the second set of questions (see example below).

#### Part Three: Upload your assignment to your edublog and tag it "Science10-scientific-scenarios" (2 marks)

##### SpongeBob Clean Pants

SpongeBob noticed that his favorite pants were not as clean as they used to be. His friend Sandy told him that he should try using Clean-O detergent, a new laundry soap she found at Sail-Mart. SpongeBob made sure to wash one pair of pants in plain water and another pair in water with the Clean-O detergent. After washing both pairs of pants a total of three times, the pants washed in the Clean -O detergent did not appear to be any cleaner that the pants washed in plain water.



1. What was the problem SpongeBob wanted to investigate?
2. What is the independent variable?
3. What is the dependent variable?
4. What do you think SpongeBob's conclusion should be?

5. How could SpongeBob improve his experimental design?

**Answers:**

1. What was the problem SpongeBob wanted to investigate? **SpongeBob's pants are not as clean as they use to be.**
2. What is the independent variable? **Clean-O Detergent**
3. What is the dependent variable? **Cleanness of his pants**
4. What do you think SpongeBob's conclusion should be? **Whether using plain water or Clean-O detergent, SpongeBob's pants are not getting any cleaner.**
5. How could SpongeBob improve his experimental design? **SpongeBob could have more trials, he could put the same type of stain (ie: mustard) on several pieces of cloths (not just his pants) and then repeat the experiment.**