

Name\_\_\_\_\_ Period\_\_\_\_\_ Date\_\_\_\_\_

## Simpson Science!

Read the following scenarios. Write a Scientific Question (in the correct format), identify the Independent Variable, Dependent Variable, Controlled/Constant Variables and the Hypothesis (also in the correct format).



### Experiment #1

Marge Simpson decided to start a new garden in her backyard. She heard that plants compete for space and decided to test this idea. She bought a mixture of flower seeds and some potting soil. She put the same amount of soil into each of 5 plastic cups. In the first cup she planted 2 seeds, in the second cup she planted 4 seeds, in the third cup 8 seeds, and in the fourth cup she planted 16 seeds. In the last cup she planted 32 seeds. After 25 days, she determined which set of plants looked the healthiest.

**Scientific Question:** (How does \_\_\_\_\_ affect \_\_\_\_\_?) \_\_\_\_\_

**Independent variable (IV):** (*The thing that is changed*): \_\_\_\_\_

**Dependent variable (DV):** (*The thing that will be measured*): \_\_\_\_\_

**Controlled/Constant variables:** (*The things that will be kept the same*): \_\_\_\_\_

**Hypothesis (IF.....THEN.....):** \_\_\_\_\_

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### **Experiment #2**

Homer was told that a certain itching powder was the newest best thing on the market. It even claims to decrease itching by 50 % because it contains caffeine. Interested in this product, he buys the itching powder and compares it to his usual product, which contains aloe vera. On one itching spot, he puts the new powder. On another itching spot, he puts his old cream. He then times how long it takes for the products to stop his itch.

**Scientific Question:** \_\_\_\_\_

\_\_\_\_\_

**Independent variable (IV):**\_\_\_\_\_

**Dependent variable (DV):** \_\_\_\_\_

**Controlled/Constant variables:** \_\_\_\_\_

\_\_\_\_\_

**Hypothesis:** \_\_\_\_\_

\_\_\_\_\_

### **Experiment #3**

Bart believes that mice that eat cat food will live longer lives. He decides to perform this experiment by feeding 10 mice cat food, and 10 mice a regular diet of cheese and breadcrumbs. He then keeps the mice in his bedroom for many years to see which group lives the longest.



**Scientific Question:** \_\_\_\_\_

\_\_\_\_\_

**Independent variable (IV):**\_\_\_\_\_

**Dependent variable (DV):** \_\_\_\_\_

**Controlled/Constant variables:** \_\_\_\_\_

\_\_\_\_\_

**Hypothesis:** \_\_\_\_\_

\_\_\_\_\_