



THINK LIKE A SCIENTIST

**Grudge Ball Review**

# WHAT IS AN INDEPENDENT VARIABLE?

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- b. The variable that is left the same
- c. The final result of the experiment
- d. The variable that is measured

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b. The variable that is left the same

# WHAT IS A DEPENDENT VARIABLE?

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- b. The variable that is left the same
- c. The final result of the experiment
- d. The variable that is measured

# WHAT IS A DEPENDENT VARIABLE?

d. The variable that is measured

# IN A SCIENTIFIC EXPERIMENT

- a. All variables should be controlled.
- b. If you do it right the first time, you don't need to do it again.
- c. Only one variable needs to be changed.
- d. If your hypothesis is incorrect, then your experiment is wrong.



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TRUE OR FALSE:

SCIENCE EXPERIMENTS DON'T NEED TO HAVE VARIABLES.

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FALSE. All experiments have variables.

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CONCLUSION?

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C-E-R

Claim - Evidence - Reasoning

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The E stands for Evidence.

C: Claim

E: Evidence

R: Reasoning

# WHAT IS THE EFFECT OF SOIL TYPE ON PLANT HEIGHT?

What is the independent variable? *Underline it.*

What is the dependent variable? *Circle it.*



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Name two control variables for this testable question.

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Type of plant, growing conditions (sunlight, temperature, etc), amount of water, type of container

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- b. Does water smell good?
- c. Does the type of wood affect how long it burns?
- d. Does carbon dioxide in the atmosphere cause the atmosphere to warm?

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# WRITE AN IF-THEN HYPOTHESIS

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# WRITE AN IF-THEN HYPOTHESIS

Does changing the height of the ramp affect how far a ball will roll?

If the height of the ramp is higher, then the ball will roll farther.