

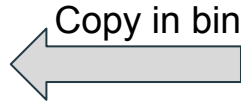
Asking Scientific Questions

Ms.Tilts



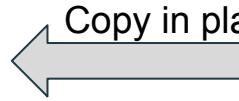
Topic: Writing Testable Questions

Copy in binder



HW: Bell Ringers Due Monday

Copy in planner.



Don't
forget to
turn late
work in!

Do Now: Effort Police- Take a post it from your materials bin and mark down any students whose worksheet is not FULLY complete

Teacher's Assistant- please read off the answers to your worksheet. Make sure your group mates mark the right answer.



Don't copy, just do! You have five minutes.

What is a testable question?

Testable Question: a question that can be answered through measurable and observable data.

Testable Vs. Not-Testable

A **Testable Question** can be answered by designing and conducting an experiment

For example:

1. Does Pepsi have more carbonation than Coke?
2. What is the effect of cigarette smoke on lung cancer?

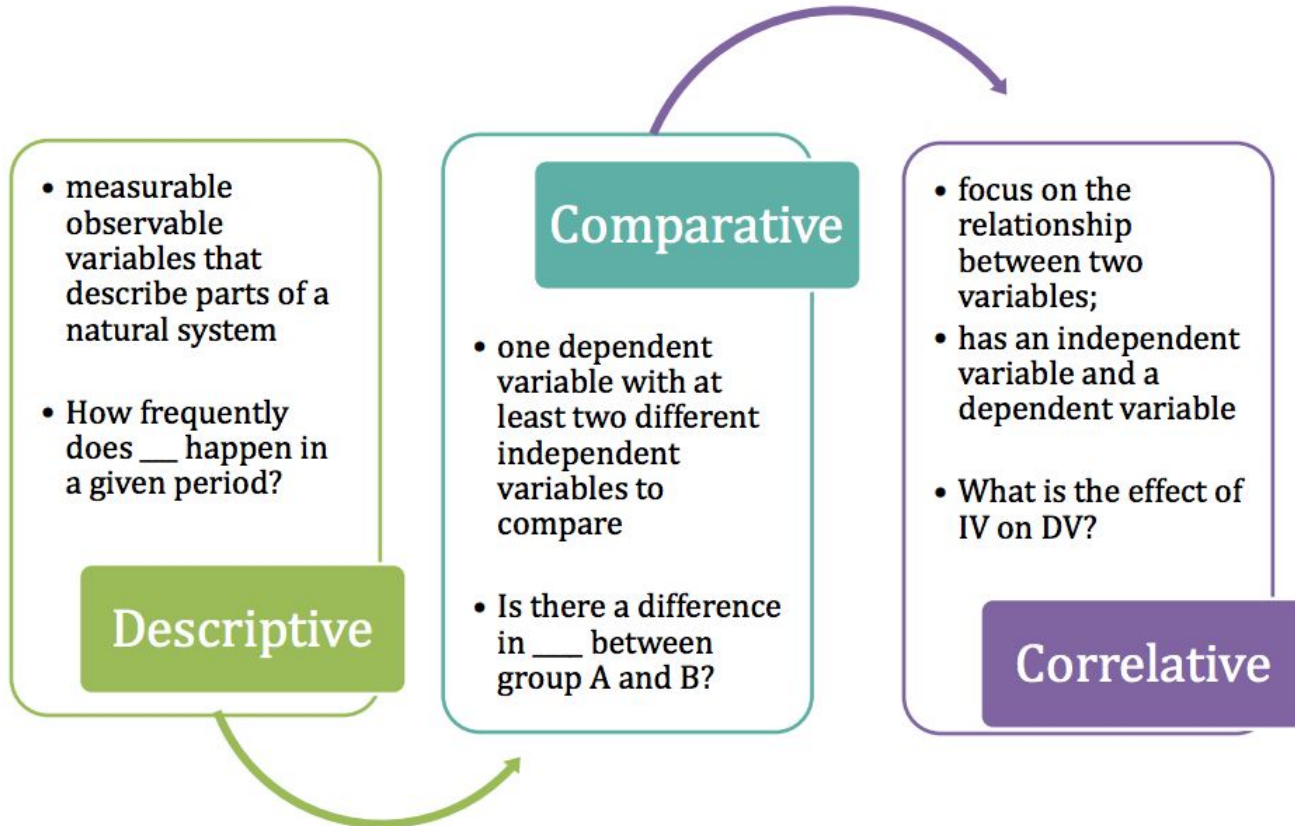
A **Non-Testable Question** cannot be answered by conducting an experiment.

For example:

1. Why is PINK the best color in the world?
2. Albert Einstein was the best physicist in the world!

Types of scientific questions

FLOW OF QUESTIONS



Sort and Justify

You will receive a testable question. After reading the prompt, you will move to the section of the room you believe that question belongs under.

Descriptive Questions

Measurable and observable questions that seek to that describe parts of a natural system

- How many _____ are in a given area?
- How frequently does _____ happen in a given period?

Comparative Questions

one dependent variable with at least two different independent variables to compare

- Is there a difference in ___ between group A and B?
- Is there a difference in ___ between different locations?

Correlative Questions

focus on the relationship between two variables; has an independent variable and a dependent variable

- Does _____ go up when _____ goes down?
- What is the effect of IV on DV?

Some ways to write a testable question...

Correlative

- 1) How does changing the independent variable affect the dependent variable?
- 2) Does changing the independent variable affect the dependent variable?
- 3) What is the effect of independent variable on dependent variable?

Kahoot

With your group, we will play a quick round of kahoot (6 QUESTIONS)

Points are given based off speed and correct answers.

The winning group will get an extra credit point