

## USGS Data Exploration Unit: Presentation 1

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### Opening Questions

Read each statement and mark whether you think the statement is true (T) or false (F).

1. \_\_\_ Science is concerned with understanding how nature and the physical world work.
2. \_\_\_ Science can prove anything, solve any problem, or answer any question.
3. \_\_\_ Any study done carefully and based on observation is scientific.
4. \_\_\_ Science can be done poorly.
5. \_\_\_ Anything done scientifically can be relied upon to be accurate and reliable.
6. \_\_\_ Different scientists may get different solutions to the same problem.
7. \_\_\_ Knowledge of what science is, what it can and cannot do, and how it works, is important for all people.

### Presentation Questions

Fill in the questions based on information in the presentation.

Define: objective

Give two examples of how you use scientific information in your life.

a)

b)

What is good science?

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Define bias:

What are the two main types of bias?

a)

b)

What is a sample?

When is sampling bias introduced?

What are factors that contribute to sampling bias?

What are some ways to minimize sampling bias? Include definitions.

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What are 3 factors that contribute to measurement bias?

What measures does the scientific community take to minimize bias in science? Include definitions for terms used.

What are some clues that scientific information you are reading is biased? Provide examples for each clue type.

a)

b)

c)