What is Science and Inquiry? Name: _____
Slide Notes Sheet

Objective: I can summarize and apply the processes involved in scientific inquiry.

Brainstorm. Write down everything that you know about science. Even if it's just one word.

Answers will vary based upon students.

- Science is the __investigation_____ and ___exploration_____ of natural events or the natural world.

- Science provides __new information_____ that results from those investigations.

- The three main branches of science are _life science_____,

- __earth science_____, and _____physical science_____.

Brainstorm. Write down qualities of a good scientist

Answers will vary based upon students.

Scientists seek to _understand_____ how the world around them works.

Scientists ask _questions_____, and then perform __experiments_____or make _observations_____ in order to test their __hypothesis/claim_____.

- __Inquiry_____ is a close examination of a matter in search for information or truth.

- **Scientific Inquiry** is the way in which a scientists __explore_____ and __study_____ the natural world.

Brainstorm: What are the inquiry skills a scientists might use to answer questions about the natural world?

Answer will vary based upon student.

- **List some of the steps a scientist could use during the process of scientific inquiry:**

 Identify problem/question
 Gather information
 Make hypothesis
 Test
 Analyze Data
 Make conclusion
 Communicate results

- **What must a scientific claim or hypothesis be? TESTABLE**

- **Observation**: Using one of more of your _senses_____to gather _data_____ or information_____.

- **Inference**: A logical __interpretation_____that is based on __evidence_____, _prior knowledge_____, or ___experience_____.

- **Data/Evidence**: facts, figures, and other info gathered through observation.

- **Variable**: _factors that can change in an experiement_____

- The _independent variable_____is the variable that is changed or tested in the experiment.

- The dependent variable_____is the variable that is studied or measured in the experiment.

- _Controls_____are factors that are kept constant in an experiment.

- **What are some ways you can record and present your evidence or data?**

Data tables and graphs

Reflect. Which quality of a good scientist do you embody the most? Why?

Will vary

Which parts in the process of scientific inquiry do you use the most?

Will vary