

The Nature of Science

What is science?

a method of organizing curiosities & gathering info in a repeatable fashion (Science is a Verb!)

What is the goal of science? to understand the world around us

What is the scientific spirit?

the refusal to accept an explanation without evidence or proof (Ask Why! Prove It!)

What do scientists do?

*investigate *observe *test *question *repeat

What are the branches of science?

*Biological *Physical(chemistry & physics) *Earth

Explain how science and technology depend on each other?

Technology is the application of scientific discoveries but, technology sometimes allows new discoveries.

What is a fact? What is a theory? best explanation ideas that explain facts

Compare a scientific law and a scientific theory.

Laws state repeated observations, but they do not explain them. Theories explain why things happen.

Compare quantitative and qualitative descriptions.

*quantitative use numbers *qualitative compares

Four Skills of a scientist

- 1. Observing using the senses and instruments
- 2. <u>Describing</u> communicating what is observed
- 3. <u>Identifying</u> using proper universal names
- 4. <u>Inferring</u> Drawing a conclusion based on what is known