

What is Science? Probe

Four students were having a discussion about how scientists do their work. This is what they said:

Antoine: "I think scientists just try out different things until something works."

Tamara: "I think there is a definite set of steps all scientists follow called the scientific method."

Marcos: "I think scientists use different methods depending on their question."

Avery: "I think scientists use different methods but they all involve doing experiments."

Which student do you most agree with? On page 5 of your INB, write that person's statement, and explain WHY you agree with it and why you disagree with the others.

What is Science Notes - Copy these notes on **page 5 of your INB** below the probe.

Science doesn't always involve developing hypotheses or conducting experiments.

Different scientific domains use different methods.

The question being asked determines the method used to investigate.

There are many ways to investigate scientific questions, including:

- experiments
- field observations and descriptions
- modeling
- collecting specimens
- making remote observations

All experiments are investigations, but not all investigations are experiments.

An **investigation** is process of research or examination to discover facts.

An **experiment** is special kind of investigation that uses variables to test a hypothesis.