

# What is Science?

## Chapter 1



# Science

Latin *scientia*= “knowledge”

Science is an organized way of using evidence to learn about the natural world.

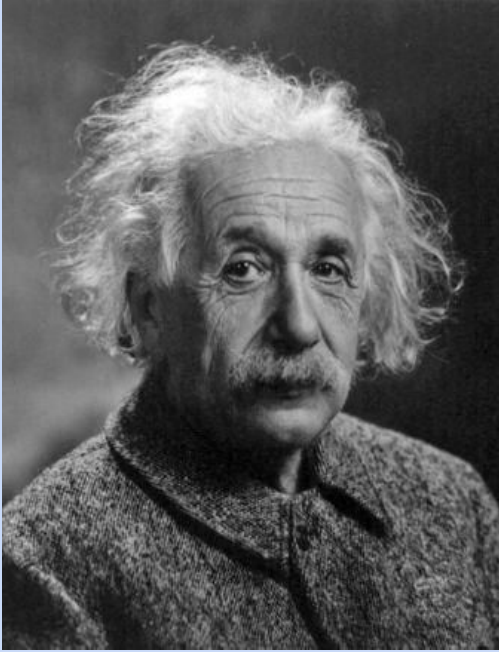
# What Science Is and Is Not

The **goal** of science is:

- to investigate and understand the natural world
- to explain events in the natural world
- to use scientific explanations to make useful predictions

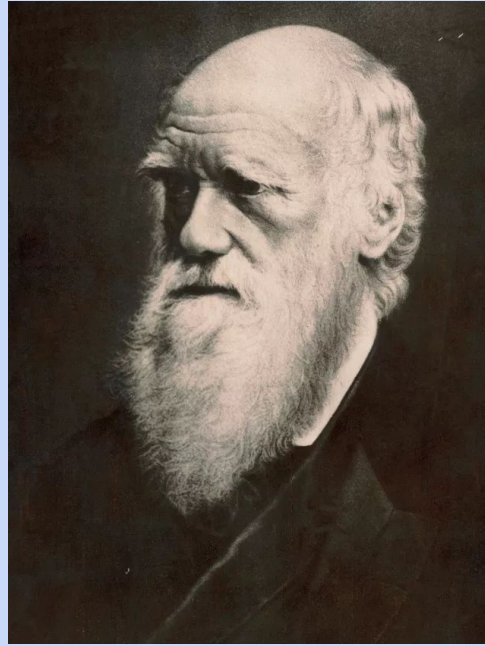


Science also refers to a body of knowledge



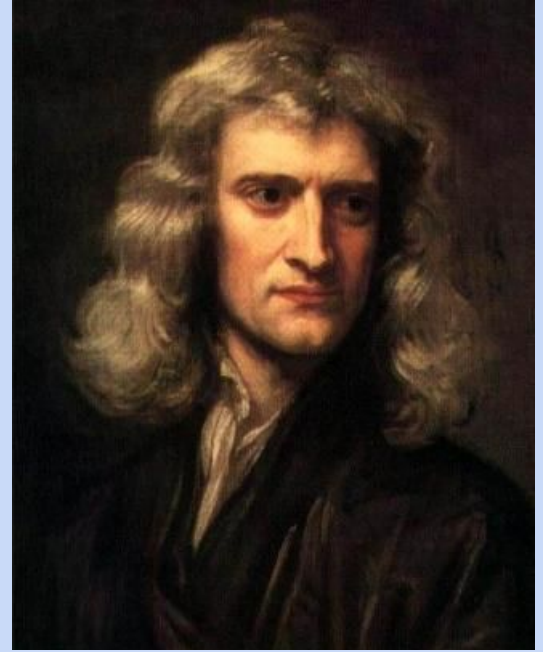
**Albert Einstein**

Developed the theory of relativity



**Charles Darwin**

Developed the theory of evolution



**Sir Isaac Newton**

Developed the laws of motion & universal gravitation

# Thinking Like a Scientist

- **Observation:**

- the process of gathering information about events or processes in a careful, orderly way
- Involves using all senses  
Sight, hearing, etc.
- Special equipment can also be used

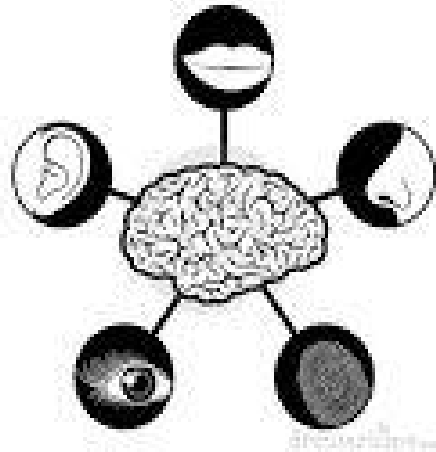
OBSERVATION CHALLENGE



- **Data:** information gathered from observations
  - **Quantitative data-** expressed in numbers
  - **Qualitative data-** descriptive, involve characteristics that cannot be counted or measured

## Qualitative observations

use your senses to observe the results.



## Quantitative observations

are made with instruments such as rulers, balances, graduated cylinders, beakers, and thermometers. These results are measurable.

(numbers)

