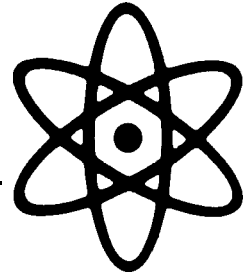


## Review 02

### What is science?

- a systematic search for an answer
- a system of asking questions in such a way that clear-cut answers will surface
- a practice of observing phenomena in such a manner that unexpected results will be acceptable
- a way of accumulating facts and forming models which can be further tested to give light to new facts
- a methodology used to come to understand the natural phenomena which surrounds us and permeates our lives

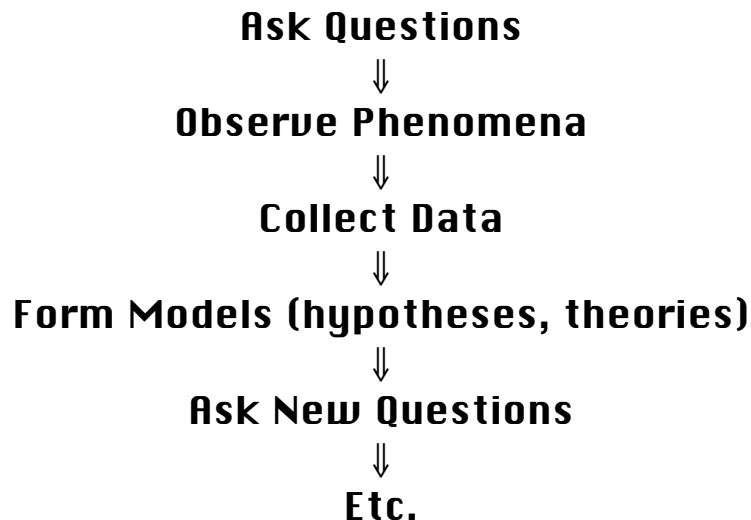


Bottom line: a way of thinking and doing

**Don't confuse science with technology!**

Basic science develops principles, which underlie technology.  
Technology is making use of these principles.

How we think and do:



Notes on experiments:

**ONE variable at a time!**

i.e., make only one change at a time

**Experimental control!**

unmodified sample against which to compare modified sample

**Science is very systematic!**

## Review 02, con't

**Biology--the scientific study of life**

**Characteristics of living organisms**

**Levels of organization of life**

**Organization of non-living world into living matter**

**Carbon, Hydrogen, Oxygen, Nitrogen, Phosphorus, Sulfur**

✓ these 6 elements which make up 99% of living matter

### ▶▶▶ SPONCH ◀◀◀

✓ they can be arranged in various ways to make

- water
- proteins (amino acids)
- lipids (fats & oils)
- carbohydrates (sugars)
- nucleic acids

- Elements are composed of atoms
- Atoms are composed of electrons, protons and neutrons
- Elements are identified by number of protons in the atomic nucleus

