

## 2. The Science of Biology



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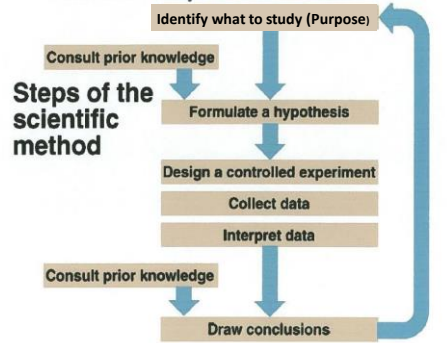
## 2. The Science of Biology

- As a science, Biology is not just a list of "facts." It is both a body of **knowledge** and a **process**.
- The job of science is to use observations, questions, & experiments to explain the natural world around us



2

How do we study the Natural World?



3

- Controlled Experiments take into account all factors that can change an experiment = **variables**

- Independent Variable: variable you **change on purpose**
- Dependent Variable: variable that responds to a change in the independent variable (**the 1 you are testing for**)
- Constants: variables kept the **same** in all trials
- Control: the **standard** for comparison

4

- **Data** = Observations are made and recorded as the experiment proceeds.

- The 2 types of observations are:
  - Quantitative: **numerically measurable**
  - Qualitative: changes in **characteristics** of an object
- This **data** is recorded in the form of notes, drawings, tables, graphs, etc

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