- viii. **Tissue**:
- ix. **Cell**:
- x. Organelle:
- xi. **Molecule**:
- xii. **Atom**:
- b. *Core Idea*: Life can be studied on a hierarchy of levels from the very large to the very small. Biologists study life at all of these levels.
- 3. Scientists use well-established methods to investigate the natural world
 - a. Core Idea: Scientific investigations always start with observations, which may lead to hypotheses and experiments that provide data on the validity of the hypotheses. Careful observations and experimentation allow scientists to investigate hypotheses and develop theories.
- 4. Scientists try to control for variables
 - a. **Core Idea**: To most clearly investigate hypotheses, scientists try to change just one variable per experiment. An independent variable is one that is changed to see its effect on a dependent variable. Performing experiments blind can reduce bias.
- 5. Scientific thinking can be distinguished from other ways of viewing the world
 - a. **Core Idea**: Biology is limited to the study of life via recognized scientific approaches. Through peer review, outside authorities can help verify the validity of scientific results. Other ways of thinking, such as pseudoscience, are not considered part of biology.
- 6. Scientists communicate data using tables and graphs 2
 - a. **Core Idea**: Scientists report data using the and graphs. You can learn to properly interpret such data because to be and graphs follow standard conventions.
- 7. Several major themes run throughout the study of bloogy
 - a. **Core Idea:** The or themes such as evolution, the relationship of structure and function, that stermations of energy and matter, the flow of information, and interconnections between elements of biological systems unify the study of biology at all levels.