# http://www.problem-solving-techniques.com/images/Scientific-Method.jpgLearning Guide

Biology Chapter 1

The Nature of Biology

Essential Questions:

*How do scientists use the scientific method to explain the world around them?*

*What are the characteristics of life?*

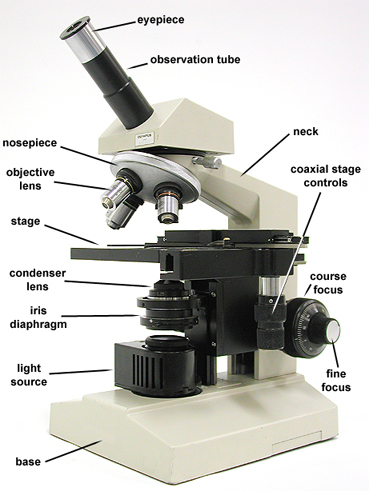
*How does technology continually change how scientists work?*

Activities:

* Scientific method activity
* Microscope Lab
* Scientific Process Flow Chart

Mitochondria

Chloroplast



Learning Targets: **I can…**

understand the characteristics of life and diversity in the biosphere.

explain how scientists use scientific method/processes to explain the natural world.

use science skills and technology to conduct ethical scientific investigations.

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| **1.1 Study of Life** | | | |  |
| Biology | |  | Organism | |
| Biodiversity | | | Cell | |
| Species | | | Metabolism | |
| Biosphere | | | DNA | |
| **1.2 Unifying Themes of Biology**  System Ecosystem  Homeostasis Evolution Adaptation  **1.3 Scientific Thinking and Processes** | | | | | |
| Observation | | | Independent Variable | | |
| Data |  | | Dependent variable | | |
| Hypothesis | | | Constant | | |
| Experiment | | | Theory | | |
| **1.4 Biologist Tools and Technology** | | | | | | |
| Light Microscope/micrograph | | | | | | |
| Transmission Electron Microscope/micrographs | | | | | | |
| Scanning Electron Microscope/micrographs | | | | | | |