* Chemistry Chapter 1
* Matter and Change
* 1-1 Learning Targets
* Define chemistry
* Identify the branches of chemistry
* Science
* Knowledge gained by observing natural events and conditions to formulate laws or principles that can be tested or verified
* Chemistry
* The study of the composition, structure and properties of matter and the changes it undergoes
* Physical science
* Helps change and improve our world
* Chemical
* Any substance that has a definite composition
* Used in all branches of chemistry
* Branches of Chemistry
* **Organic**- study of carbon based compounds
* **Inorganic**- study of non-organic, everything besides carbon
* **Physical**- study of properties, changes and relationships between energy and matter
* **Biochemistry**- study of substances and process in living things
* **Analytical**- identification of components and composition of materials
* **Theoretical** – use of math and components to design and predict properties of new compounds
* Basic Research
* Used to increase knowledge
* How, why, what
* Chance discoveries
* Applied Research
* To solve a specific problem
* Example: refrigerants and ozone
* Technological development
* Production and use of products that improve out quality of life
* Examples: computers, biodegradable materials
* Areas often overlap
* Chemistry Today
* Computer Modeling
  + Pharmaceuticals
* Forensic Chemistry
  + Analyze evidence
  + Uses many branches
* Green Chemistry-products and processes that minimize substances that are harmful