- CH.1.01
- Week 01 - Week 02

Comment(s):
Learning Outcome: Describe what characterizes science and its methods and use a quantitative observation with measurement by SI units.
Key Concepts:

  - 1. Science.
  - 2. Scientific methods.
  - 3. Scientific law.
  - 4. Scientific theory.
  - 5. Relations between variables.
  - 6. Uncertainty.
  - 7. SI units.
  - 8. Instrumentation (precision, accuracy, significant figures).
  - 9. Types of variables.
  - 10. Density.
  - 11. Specific gravity.

Skills: 1. Use laboratory equipment to get measurement data 2. Represent data on data tables and graphs correctly 3. Differentiate scientific from non-scientific reasoning 4. Develop a chart of main processes in scientific thinking 5. Demonstrate proper use of quantitative instrumentation 6. Conduct and analyze series of measurements 7. Evaluate scientific reports as to their use of quantitative instruments reporting and analysis of findings. 8. Determine number of significant figures 9. Measure and calculate densities of materials 10. Compare densities of solids, regular and irregular and liquid materials by their behavior and gross observation

Essential Questions: What if everyone in the government used the scientific method to analyze and solve society's problems, and politics were never involved in the solutions? How would this be different from the present situation, and would it be better or worse?

Textbook and Resource Materials: What if everyone in the government used the scientific method to analyze and solve society's problems, and politics were never involved in the solutions? How would this be different from the present situation, and would it be better or worse?

Evidence of Learning: R: Students will ABLE TO GIVE DEFINITION FOR SCIENCE. BA: Represent in graph the relation between pressure and volume of the gas at the room temp. BA: How chemistry can help in digging tunnels and collapse old buildings quickly and safely. ST: Students will read two brief articles and develop an argument using examples to justify their decision as to which is based on scientific and which is based on non-scientific reasoning. BA: Zumdahl Chemistry (exercise page 32 and 4 to 5) Lab Write-up

Capstone Connection: Use of measurement and use of scientific method to make decisions in design
Relations: ME.1.01; (Study the scientific concepts and graph parameters. MA.1.05; (Variables) BIO.1.02; (Measurement and SI units) PH. 1.01; () PH. 1.05; ()

Chemistry LO 1

Vedios :-

1- scientific method
2- Scientific theory and Scientific Law
3- Relations between variables
4- Uncertainly
5- SI units
6- The metric system
7- Instrumentation
8- significant figures
8- Types of variables
9- Density
10- Specific gravity

Proplems:-

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