Introduction to Earth Science Objectives

Correctly define: observation, inference, classification, percent deviation, density, rate of change, cyclic change, dynamic equilibrium, interface, mass, volume

GRAPHICAL RELATIONSHIPS

- Graphically demonstrate the difference between direct, inverse, cyclic, and non- relationships.
- Classify events as cyclic or non-cyclic.
- Associate the words "cyclic" and "predictable".

OBSERVATIONS, INFERENCES AND CLASSIFICATION

- Give an example of an observation.
- Develop an inference based on collected data.
- Classify objects based on their similarities or differences.

DENSITY, MASS, VOLUME

- Explain how density, mass and volume change as an object is heated, cooled or split apart.
- Calculate the density of regularly shaped and irregularly-shaped objects.
- Graphically show the relationship between temperature and density for: (1) water (2) all other objects
- State the temperature at which water is most dense and whether a object will sink or float in water based on its density.
- State the phase of matter in which most materials are most and least dense.

SCIENTIFIC INSTRUMENTS

- State the most common instruments used to measure the: (1) volume of regular, rectangular objects, (2) volume of irregularly shaped objects, (3) mass of objects, (4) distance between objects, and (5) time.

REAL-WORLD EXAMPLES

- Give real-life examples of a system in dynamic equilibrium, an interface, and three cyclic events.

FORMULAS AND WORD PROBLEMS

- Mathematically solve volume, density, percent deviation, and rate of change problems using the Earth Science Reference Tables.