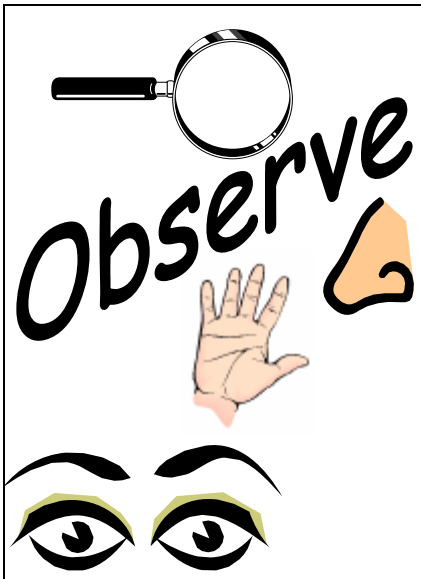
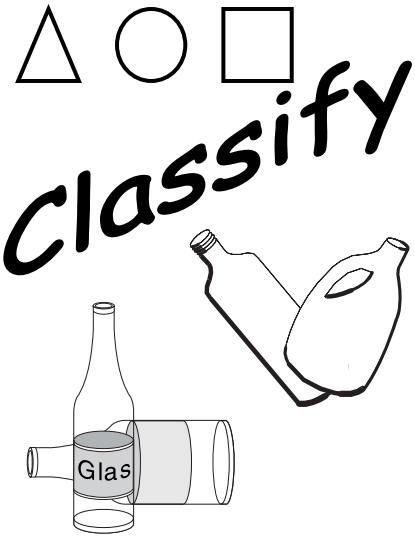
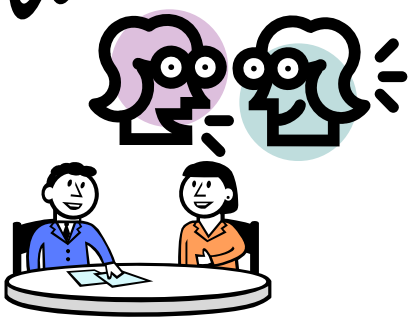
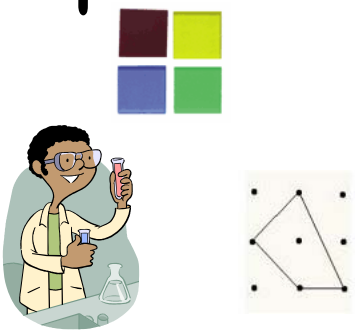
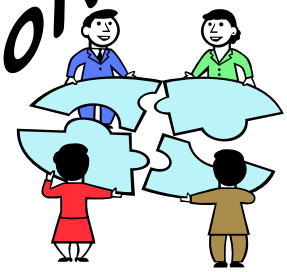
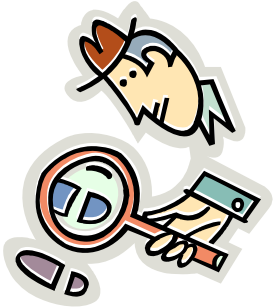
Observe 	Classify 	Communicate 
Experiment 	I think ... because...  Predict	Problem Solving 
Measure 	 Infer	**Why** do you think that? Hypothesize 

Communicate:

Organize and consolidate mathematical and scientific thinking through communication; communicate mathematical and scientific thinking coherently and clearly to peers, teachers and others; analyze and evaluate the mathematical and scientific thinking and strategies of others; and use the language of mathematics and science to express mathematical and scientific ideas precisely.

Classify:

Group or organize objects or events into categories based on specific criteria

Observe:

Use one or more of your senses to perceive properties of objects and events; can be done directly with the senses or indirectly through the use of simple or complex instruments

Problem Solving:

Build new mathematical or scientific knowledge through problem solving; solve problems that arise in mathematics, science and in other contexts; apply and adapt a variety of appropriate strategies to solve problems; and monitor and reflect on the process of mathematical and scientific problem solving.

Predict:

Anticipate outcomes of future events, based on patterns or experience

Experiment:

Design procedures for gathering data to test hypotheses under conditions in which variables are controlled or manipulated

Hypothesize:

Pose a testable explanation for observations or events and state it as the expected outcome of an experiment

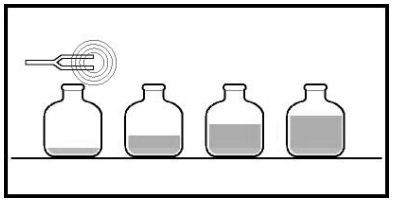
Infer:

Use logical reasoning to make conclusions based on observations

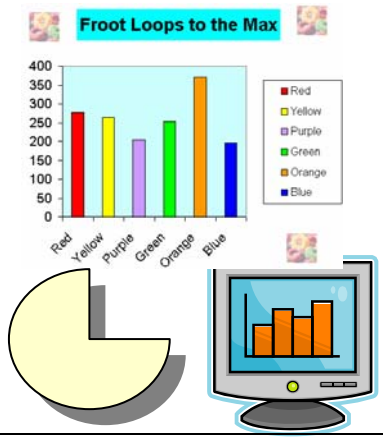
Measure:

Make quantitative observations using both nonstandard and standard measures

Control Variables



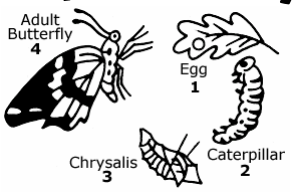
Interpret Data



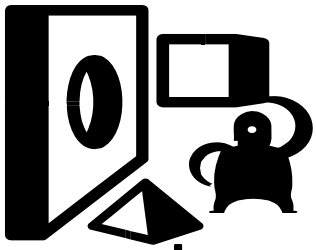
Design

Representation

$ + = ½

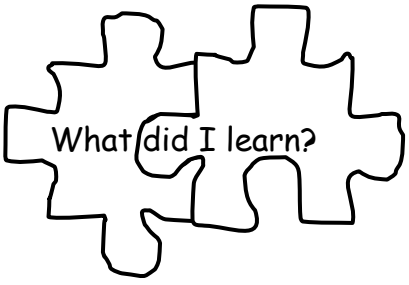


Reasoning and Proof

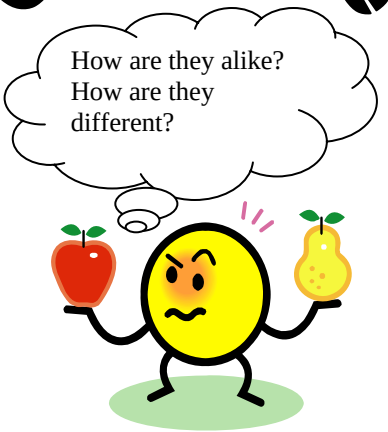


Safety

Connect



compare



Draw Conclusions

Interpret Data:

Make observations of objects or events to make inferences or predictions; write down the observations on paper as notes or display the data in chars, tables or graphs; make predictions, inferences and hypotheses from a set of data

Design:

Develop procedures for gathering data to test hypotheses.

Control Variables:

State or control factors that affect the outcome of an experiment

Reasoning and Proof:

Recognize reasoning and proof as fundamental aspects of mathematics and science; make and investigate mathematical and scientific conjectures; develop and evaluate mathematical and scientific arguments and proofs; and select and use various types of reasoning and methods of proof.

Representation:

Create and use representations to organize, record and communicate mathematical and scientific ideas; select, apply and translate among mathematical and scientific representations to solve problems; and use representations to model and interpret physical, social, mathematical and scientific phenomena.

Safety:

Make observations and using materials carefully and safely.

Connect:

Recognize and use connections among mathematical and scientific ideas; understand how mathematical and scientific ideas interconnect and build on one another to produce a coherent whole; and recognize and apply mathematics in contexts outside of mathematics and science.

Compare:

Identify common and distinguishing characteristics among objects or events.

Draw Conclusions:

Interpret data to make conclusions; the final step of an investigation.