

INQUIRY AND PROCESS SKILLS BASED ON ALL STANDARDS

It should be a goal of the instructor to foster the development of science process skills. The application of these skills allows students to investigate important issues in the world around them.

Inquiry-based units will include many or most of the following process skills. These process skills should be incorporated into students' instruction as developmentally appropriate.

Classifying – arranging or distributing objects, events, or information representing objects or events in classes according to some method or system

Communicating – giving oral and written explanations or graphic representations of observations

Creating models – displaying information, using multisensory representations

Gathering and organizing data – collecting information about objects and events which illustrate a specific situation

Generalizing – drawing general conclusion from particulars

Identifying variables – recognizing the characteristics of objects or factors in events that are constant or change under different conditions

Inferring – drawing a conclusion based on prior experiences

Interpreting data – analyzing data that have been obtained and organized by determining apparent patterns or relationships in the data

Making decisions – identifying alternatives and choosing a course of action from among the alternatives after basing the judgement for the selection on justifiable reasons

Manipulating materials – handling or treating materials and equipment safely, skillfully, and effectively

Measuring – making quantitative observations by comparing to a conventional or nonconventional standard

Observing – becoming aware of an object or event by using any of the senses (or extensions of the senses) to identify properties

Predicting – making a forecast of future events or conditions expected to exist.