

Scientific Processes



The NYS Science Standards form the basis for what teachers will teach in each grade. Here at Barrack Obama our curriculum emphasizes the use of scientific processes and skills through hands-on activities. These Scientific Processes are part of instruction as developmentally appropriate.

List of Process Skills

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 creating a graphic representations of observations

Comparing and contrasting – identifying similarities and differences between or among objects, events, data, systems, etc.

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 conclusions 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 judgment 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