

Skill	Definition	Example
Observing	Using the senses (or extensions of the senses) to gather information about an object or event	Describing a pencil as yellow; looking at a melting ice cube to determine its changing shape; feeling water from a melting ice cube to determine its slipperiness or coldness
Inferring	Making an "educated" guess (not just a guess) about an object or event based on previously gathered data or information, or making a conclusion based on reasoning or knowledge of cause and effect to explain an observation	Saying that the person who used a pencil made a lot of mistakes because the eraser was well worn; or stating that heat caused the melting of an ice cube that had been placed in water
Measuring	Using both standard and non-standard measures or estimates to describe the dimensions of an object or event, i.e. making quantitative observations	Using a meter stick to measure the length of a table in centimeters; using a clock to measure the time needed for an ice cube to melt; using a thermometer to measure the temperature of water
Communicating And using Numbers	Using words or graphics symbols to describe an action, object or event; applying mathematical rules/formulas to calculate quantities or determine relationships from basic measurements	Describing verbally, in writing, or through a graph the change in height of a planet over time; computing the average time for a 10 cubic centimeter ice cube to melt
Classifying	Grouping, ordering, arranging, or distributing objects, events, or information into categories based on properties or criteria, according to some method or system	Placing all rocks having a certain grain size or hardness into one group; taking objects such as buttons from a mixed collection and placing them in groups by some characteristic or arranging them in order according to some measure
Predicting	Stating the outcome of a future event or of future conditions expected to exist based on a pattern of evidence	Predicting the height of a plant in two weeks based on a graph of its growth during the previous four weeks; stating, "an ice cube whose weight is twice that of another ice cube will require twice the time to melt."