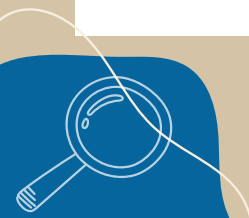




SEEING SCIENCE - SKILLS



PROBLEM SOLVING STAGE	4 - EXCELLENT	3 - WELL DONE	2 - CLOSE	1 - NEED HELP
INITIATE & PLAN	Throughout your project, you are consistently making careful observations, asking questions, searching, inferring, predicting and investigating.	Throughout your project, you are usually making careful observations, asking questions, searching, inferring, predicting and investigating.	Throughout your project, you are sometimes (or with some support) making careful observations, asking questions, searching, inferring, predicting and investigating.	Throughout your project, you are rarely (or only with support) making careful observations, asking questions, searching, inferring, predicting and investigating.
PERFORM & RECORD	Throughout your project, you are consistently and correctly using instruments, measuring and recording observations and planning based on data.	Throughout your project, you are usually, with few mistakes, using instruments, measuring and recording observations and planning based on data.	Throughout your project, you sometimes (or with some support) use instruments correctly, measure and record observations and plan based on data.	Throughout your project, you rarely (or only with support) use instruments correctly, measure and record observations and plan based on data.
ANALYZE & EXPLAIN	Throughout your project, you are consistently comparing, contrasting, classifying, analyzing and reviewing.	Throughout your project, you are usually comparing, contrasting, classifying, analyzing and reviewing.	Throughout your project, you are sometimes (or with some support) comparing, contrasting, classifying, analyzing and reviewing.	Throughout your project, you are rarely (or only with support) comparing, contrasting, classifying, analyzing and reviewing.
COMMUNICATION & TEAMWORK	Throughout your project, you are consistently discussing, explaining, reporting, writing, reflecting and teaching.	Throughout your project, you are usually discussing, explaining, reporting, writing, reflecting and teaching.	Throughout your project, you are sometimes (or with some support) discussing, explaining, reporting, writing, reflecting and teaching.	Throughout your project, you are rarely (or only with support) discussing, explaining, reporting, writing, reflecting and teaching.



PROCESS SKILLS

Initiate & Plan

Observing: Using the 5 senses to find out about objects and events: their characteristics, properties, differences, similarities, and changes. Observation can be made directly with the senses or indirectly through the use of simple or complex instruments.

Questioning: A strategy to make meaning or wonder about uncertainties.

Searching: Locating and using several sources, developing self-reliance in acquiring library and Internet skills.

Inferring: Using logic to draw conclusions from the results of investigating/problem-solving.

Predicting: Predictions are not random guesses but speculations of what may occur in the future based on prior knowledge, observations, and reasoning.

Investigating: Gathering background information, formulating problems / hypotheses.

Perform & Record

Using Instruments: Knowing the instrument's parts, how it works, how to adjust it, its proper use for a given task, its limitations; knowing how to store it and transport it safely.

Measuring: Assigning numbers to observations, e.g., metric units, time, student-generated units, using appropriate measuring devices and techniques.

Recording: Noting, documenting, tabulating, charting; working systematically, working regularly.

Planning: Working systematically, regularly organizing for future, seeing possible results.



PROCESS SKILLS

Analyze & Explain

Comparing: Looking for similarities.

Contrasting: Looking for differences.

Classifying: Putting things into groups and subgroups, identifying categories, deciding between alternatives.

Analyzing: Seeing implications and relationships, discerning causes and effects, locating new problems.

Reviewing: Picking out important items, memorizing, associating.

Communication & Teamwork

Discussing: Engaging in oral, written, or any other appropriate form of communication with others

Explaining: Clearly describing, clarifying main points, and focusing on the “why” and/or “how” of the issue, concept or idea.

Reporting: Organizing and presenting information in a written or oral format

Writing: Conveying information (e.g., questions, observations, experimental report) by graphical means.

Reflecting: The activity of either an individual or group that involves analyzing, judging the importance of, and making connections to the learning experience.

Teaching: Making meaning of concepts or processes by organizing them into key facts and ideas and clearly conveying them to others.

