SCIENTIFIC PROCESS AND APPLICATION SKILLS

Observing	Using one or more of the senses to gather information about one's environment	BASIC
Communicating	Conveying oral or written information verbally as well as visually through models, tables, charts, and graphs	
Classifying	Utilizing simple groupings of objects or events based on common properties	
Measuring	Using appropriate metric units for measuring length, volume, and mass	
Predicting	Proposing possible results or outcomes of future events based on observations and inferences drawn from previous events	
Inferring	Constructing an interpretation or explanation based on information gathered	
Controlling Variables	Recognizing the many factors that affect the outcome of events and understanding their relationships to each other whereby one factor (variable) can be manipulated while others are controlled	ADVANCED
Defining Operationally	Stating definitions of objects or events based on observable characteristics	
Formulating Hypotheses	Making predictions of future events based on manipulation of variables	
Experimenting (Controlled)	Conducting scientific investigations systematically, including identifying and framing the **question** carefully, forming a **hypothesis**, managing **variables** effectively, developing a logical experimental **procedure**, recording and analyzing **data**, and presenting **conclusions** based on investigation and previous research	
Analyzing Data	Using collected data to accept or reject hypotheses	