Process Skills Rubric

Skill	Beginning	Developing	Advanced
Observing	• Uses single sense and minimal description • Struggles to uses magnifying glasses and other instruments to extend senses • Notices patterns or sequences in events when they are pointed out to him/her	• Uses single sense with more than one descriptor • Uses magnifying glasses and other instruments to extend senses when directed • Identifies details in objects, organisms and events when directed to observe more closely • Notices patterns or sequences in events when probed	• Uses more than one sense with multiple accurate descriptions • Uses magnifying glasses and other instruments to extend senses • Identifies details in objects, organisms and events • Notices patterns or sequences in events
Measuring	• Makes visual determinations that sometimes make sense • Inaccurate when using tools	• Uses appropriate tools • Sometimes inaccurate when using tools	• Uses appropriate tools • Accurate measurements are taken when using tools
Communicating	• **Oral:** answers direct questions • **Written:** student can read notes • **Diagrams:** unclear and need student explanation of observations of object or organisms	• **Oral:** answers need prompting to include evidence • **Written:** are based on observation of objects and organisms with little evidence • **Diagrams:** are based on observation of objects and organisms without labels	• **Oral:** answers complete with supporting evidence with no prompts • **Written:** detailed carefully written accounts of investigations and observations including evidence • **Diagrams:** are based on careful observation of objects and organisms with clear with labels
Collecting data	• Needs prompts when recording data, put your finger on … • Does not construct charts • Teacher designed data is collected inaccurately so does not serves as evidence to support conclusions	• records data accurately when provided a chart, needs little direction • Does not construct or label charts • Records units of weight and measure when reminded • Teacher designed data collected serves as evidence to support conclusions	• Designs and labels data charts • Records data accurately • Records units of weight and measure • Student designed data collected serves as evidence to support conclusions

Skill	Beginning	Developing	Advanced
Making graphs and Charts	• Puts data into charts and graphs with directions • Data is lacks organization and is inaccurate	• Puts data into prepared labeled charts and graphs with few prompts • Data is lacks organization but is accurate	• Constructs, labels and uses charts and graphs to fit data that is being collected • Data is well organized and accurate
Classifying	Needs help putting information into provided categories	Can sort information with provided categories	Able sort information and puts into categories
Predicting	• Makes predictions that do not fit the evidence, often are incorrect • Can test predictions when given directions	• Makes predictions using some evidence that are sometimes reasonable • Suggests how to test predictions when questioned or lead	• Explains basis of predictions using evidence makes reasonable predictions that fit the evidence, whether accurate or not. • Suggests how to test predictions
Inferring	• Still concrete learner who does not understand where inference come from	• Makes inferences based on some evidence and scientific knowledge • Sometimes is able to explain basis for inferences • Does not suggests how to test inferences	• Makes reasonable inferences based on evidence and scientific knowledge • Explains basis for inferences • Suggests how to test inferences
Hypothesizing	• Cannot develop hypothesis without help • Can understand hypothesis proposed by others • Can test hypothesis when given a plan	• Explains basis for hypothesis when probed with questions • Needs help making reasonable hypothesizes based on evidence and scientific knowledge • Needs help with plans a means to test hypothesis	• Makes reasonable hypothesizes based on evidence and scientific knowledge • Explains basis for hypothesis • Plans a means to test hypothesis
Interpreting data	• Reports data but needs help to finding meaning in it • Cannot make interpolations and extrapolations from patterns in information and observations	• Reports data and makes explanations with probing • Struggles to make interpolations and extrapolations from patterns in information and observations	• Can explain meaning of data • Makes interpolations and extrapolations from patterns in information and observations
Making models	• Follows directions to build model but has difficulty understanding its significance	• Follows directions to build model and understands the concept illustrated	• Makes models without directions to illustrate a concept