

TABLE 3.2

Continued

<i>Measuring and Estimating</i>	<ol style="list-style-type: none"> 1. <i>Demonstrate</i> the use of simple tools to describe length, distance, and time. 2. <i>Describe</i> objects and events using measurements consistently during investigations. 3. <i>Construct</i> estimates of simple measurements of quantities such as length and area. 4. <i>Apply</i> rules for calculating derived quantities from two or more measurements. 5. <i>Distinguish</i> between accuracy and precision.
Integrative Skills	
Associated Behaviors	
<i>Organizing, Interpreting, and Drawing Conclusions from Data</i>	<ol style="list-style-type: none"> 1. <i>Describe</i> the overall appearance of a graph or map and the relationships between individuals and groups of data. 2. <i>Construct</i> maps, tables, and graphs using information from observations. 3. <i>Construct</i> one or more statements of inferences or hypotheses from the information given in a table of data, graph, map, or picture. 4. <i>Use and construct</i> maps and graphs of various types to interpret data. 5. <i>Describe</i> data using the mean, median, and range where applicable. 6. <i>Use</i> technology hardware and software to gather, analyze, and interpret data. 7. <i>Distinguish</i> between linear and nonlinear relationships in data.
<i>Isolating and Using Variables</i>	<ol style="list-style-type: none"> 1. <i>Identify</i> factors that may influence the behavior or characteristics of an event or set of events. 2. <i>Distinguish</i> among variables that are manipulated, responding, or held constant in an investigation or description of an investigation. 3. <i>Construct</i> a test to determine the effects of one variable (manipulated variable) on a second variable (the responding variable). 4. <i>Distinguish</i> among conditions that hold a given variable constant and conditions that do not hold a variable constant.
<i>Formulating Hypotheses</i>	<ol style="list-style-type: none"> 1. <i>Distinguish</i> among statements of inference and hypothesis. 2. <i>Construct</i> a hypothesis relating potentially interacting variables. 3. <i>Construct</i> a test of a hypothesis. 4. <i>Distinguish</i> between observations that support a hypothesis and those that do not. 5. <i>Reconstruct</i> a hypothesis to increase its power to explain.
<i>Solving Problems, Making Decisions, Investigating, Thinking Critically, and Thinking Creatively</i>	<ol style="list-style-type: none"> 1. <i>Acquire</i> background information. 2. <i>Establish</i> initial conditions for the investigation. 3. <i>Write</i> focus questions to guide inquiry. 4. <i>Collect and analyze</i> data while attempting to develop explanations. 5. <i>Reexamine and rewrite</i> explanations/plans if necessary.