

Subject	Depth of Knowledge			
	Level 1	Level 2	Level 3	Level 4
Science	<p>Requires students to recall facts, definitions, or simple procedures or processes. Involves rote responses, use of well-known formulae, or following a set of clearly defined procedures.</p> <p>Examples:</p> <ul style="list-style-type: none"> Recall or recognize a fact, term, structure, or property Represent in words or diagrams a scientific concept or relationship Provide or recognize a standard scientific representation or simple phenomenon Perform a grade level-appropriate routine procedure, such as measuring length or completing a basic Punnett 	<p>Requires students to make some decisions as to how to approach the question or problem. Involves comparing, classifying, organizing, estimating, ordering, or displaying data (e.g., tables, graphs, charts). Typically involves multiple-step procedures.</p> <p>Examples:</p> <ul style="list-style-type: none"> Specify and explain the relationship between facts, terms, properties, or variables Describe and explain examples and non-examples of science concepts Select a procedure according to specified criteria and perform it Organize, represent, and interpret data Interpret or explain phenomena in terms of science concepts Make basic predictions for cause-and-effect relationships 	<p>Requires students to solve problems with more than one possible answer and justify responses. Experimental design involves more than one dependent variable. Requires drawing conclusions from observations, citing evidence, and developing logical arguments for concepts. Involves using concepts to solve non-routine problems.</p> <p>Examples:</p> <ul style="list-style-type: none"> Identify research questions and design investigations for a scientific problem Develop a scientific model for a complex situation Draw robust conclusions from observations and experimental data Cite evidence and develop a logical argument 	<p>Requires complexity at least at the level of DOK 3 but also, an extended time to complete the task. A project that requires extended time but repetitive or lower-DOK tasks is not at Level 4. Requires students to apply one approach among many to solve problems. Involves developing generalizations from obtained results and formulating strategies to solve new problems in a variety of situations.</p> <p>Examples:</p> <ul style="list-style-type: none"> Conduct an investigation, from specifying a problem to designing and carrying out an experiment, to analyzing its data and formulating conclusions Analyze the results of multiple studies on a particular science topic to form an original conclusion about the subject Evaluate strengths and weaknesses of an experimental design and develop a revised experimental design