

Revised Bloom's Taxonomy	Webb's DOK Level 1 Recall & Reproduction	Webb's DOK Level 2 Skills & Concepts	Webb's DOK Level 3 Strategic Thinking/ Reasoning	Webb's DOK Level 4 Extended Thinking
1. Remember Retrieve knowledge from long-term memory, recognize, recall, locate, identify	<ul style="list-style-type: none"> ○ Recall, observe, & recognize facts, principles, properties ○ Recall/ identify conversions among representations or numbers (e.g., customary and metric measures) 			
Understand Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion (such as from examples given), predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> ○ Evaluate an expression ○ Locate points on a grid or number on number line ○ Solve a one-step problem ○ Represent math relationships in words, pictures, or symbols ○ Read, write, compare decimals in scientific notation 	<ul style="list-style-type: none"> ○ Specify and explain relationships (e.g., non-examples/examples; cause-effect) ○ Make and record observations ○ Explain steps followed ○ Summarize results or concepts ○ Make basic inferences or logical predictions from data/observations ○ Use models /diagrams to represent or explain mathematical concepts ○ Make and explain estimates 	<ul style="list-style-type: none"> ○ Use concepts to solve <u>non-routine</u> problems ○ Explain, generalize, or connect ideas <u>using supporting evidence</u> ○ Make <u>and justify</u> conjectures ○ Explain thinking when more than one response is possible ○ Explain phenomena in terms of concepts 	<ul style="list-style-type: none"> ○ Relate mathematical or scientific concepts to other content areas, other domains, or other concepts ○ Develop generalizations of the results obtained and the strategies used (from investigation or readings) and apply them to new problem situations
Apply Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> ○ Follow simple procedures (recipe-type directions) ○ Calculate, measure, apply a rule (e.g., rounding) ○ Apply algorithm or formula (e.g., area, perimeter) ○ Solve linear equations ○ Make conversions among representations or numbers, or within and between customary and metric measures 	<ul style="list-style-type: none"> ○ Select a procedure according to criteria and perform it ○ Solve routine problem applying multiple concepts or decision points ○ Retrieve information from a table, graph, or figure and use it solve a problem requiring multiple steps ○ Translate between tables, graphs, words, and symbolic notations (e.g., graph data from a table) ○ Construct models given criteria 	<ul style="list-style-type: none"> ○ Design investigation for a specific purpose or research question ○ Conduct a designed investigation ○ Use concepts to solve non-routine problems ○ <u>Use & show reasoning, planning, and evidence</u> ○ Translate between problem & symbolic notation when not a direct translation 	<ul style="list-style-type: none"> ○ Select or devise approach among many alternatives to solve a problem ○ Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results

Analyze Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct	<ul style="list-style-type: none"> ○ Retrieve information from a table or graph to answer a question ○ Identify whether specific information is contained in graphic representations (e.g., table, graph, T-chart, diagram) ○ Identify a pattern/trend 	<ul style="list-style-type: none"> ○ Categorize, classify materials, data, figures based on characteristics ○ Organize or order data ○ Compare/ contrast figures or data ○ Select appropriate graph and organize & display data ○ Interpret data from a simple graph ○ Extend a pattern 	<ul style="list-style-type: none"> ○ Compare information within or across data sets or texts ○ Analyze and <u>draw conclusions from data, citing evidence</u> ○ Generalize a pattern ○ Interpret data from complex graph ○ Analyze similarities/differences between procedures or solutions 	<ul style="list-style-type: none"> ○ Analyze multiple sources of evidence ○ analyze complex/abstract themes ○ Gather, analyze, and evaluate information
Evaluate Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> ○ <u>Cite evidence and develop a logical argument</u> for concepts or solutions ○ Describe, compare, and contrast solution methods ○ <u>Verify reasonableness of results</u> 	<ul style="list-style-type: none"> ○ Gather, analyze, & evaluate information to draw conclusions ○ Apply understanding in a novel way, provide argument or justification for the application
Create 2. Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, construct, produce	<ul style="list-style-type: none"> ○ Brainstorm ideas, concepts, or perspectives related to a topic 	<ul style="list-style-type: none"> ○ Generate conjectures or hypotheses based on observations or prior knowledge and experience 	<ul style="list-style-type: none"> ○ Synthesize information within one data set, source, or text ○ Formulate an original problem given a situation ○ Develop a scientific/mathematical model for a complex situation 	<ul style="list-style-type: none"> ○ Synthesize information across multiple sources or texts ○ Design a mathematical model to inform and solve a practical or abstract situation