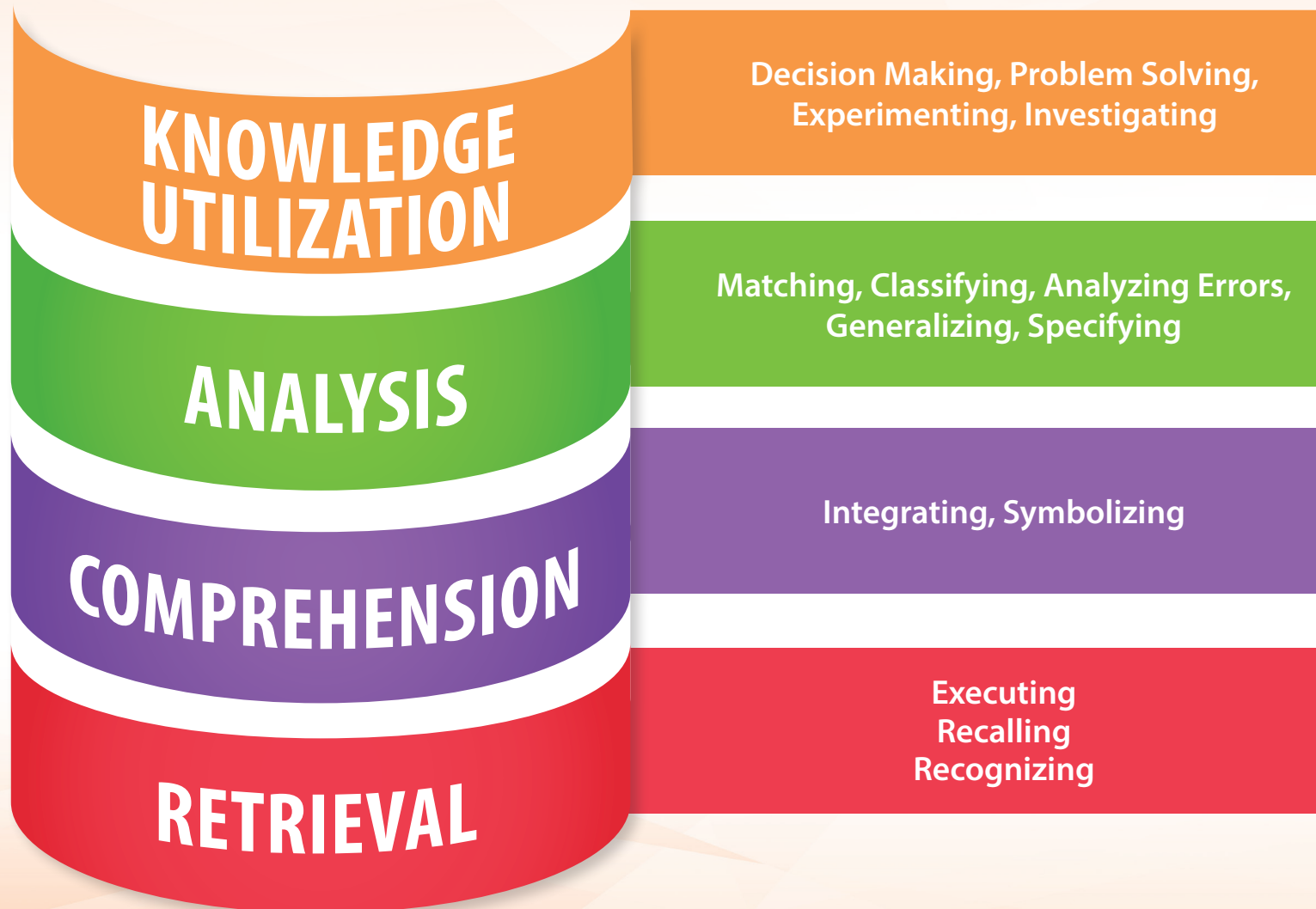


# MARZANO'S TAXONOMY OF EDUCATIONAL OBJECTIVES



# RETRIEVAL LEVEL

## Marzano Taxonomy - Terms and Phrases, Question/Sentence Stems, Products

*Retrieval - Activation and transfer of knowledge from permanent memory to working memory*

Mental Process	Terms and Phrases	Question/Sentence Stems	Products
<b>Recognizing</b> Validating the accuracy of information	choose from; determine if the following is true; identify accurate statements; match; recognize; select the correct fact	Can you select...? Which is the best way to demonstrate...? Which of the following...? Which one...? Which would not be correct about...?	Definition Description Fact Fill-in-the-blank Highlight Label List Matching Multiple-choice Wordle
<b>Recalling</b> Producing accurate information	answer who- what- when- where questions; define; describe; from memory; label; list; name; provide examples of; quote; recall; recite; remember; retell; state	Can you list...? Describe... Give an example of... Name one way... What do you recall...? What is...? Where is...? Who is...? When did...?	
<b>Executing</b> Carrying out a procedure	add; apply; calculate; conduct; demonstrate; divide; draft; employ; execute; implement; know how to; make; multiply; perform; read; solve; subtract; use; write	Demonstrate each step... Execute the procedure... What is the next step...? Use your knowledge to implement...	

*Some terms are classified at more than one taxonomy level depending upon their application.*

# COMPREHENSION LEVEL

Marzano Taxonomy - Terms and Phrases, Question/Sentence Stems, Products

*Comprehension - Identification of the critical or defining attributes of knowledge*

Mental Process	Terms and Phrases	Question/Sentence Stems	Products
<b>Integrating</b> Articulating the critical versus noncritical elements of information	ask questions; clarify; convey; describe how or why; describe the effects; describe the key parts of; describe the relationship between; emphasize; explain how; explain ways in which; identify why; interpret; make connections between; paraphrase; summarize; understand	Draw a diagram... Explain what is happening... Explain the logic behind... How will you rephrase this...? Describe how... How would you represent...? How would you summarize...? Put in your own words... What is meant by...? What can you say about...? What facts or ideas show...? What is the main idea of...? Use a graphic organizer to...	Diagram Graphic organizer Illustration Log/Journal entry Mind map Open-ended response Outline Performance Picture Recitation Summary Timeline Twitter
<b>Symbolizing</b> Depicting critical elements in nonlinguistic or abstract form	act out; chart; conceptualize; depict; diagram; draw; exhibit; graph; illustrate; map; represent; sequence; show; symbolize; use models; visualize		

*Some terms are classified at more than one taxonomy level depending upon their application.*

# ANALYSIS LEVEL

## Marzano Taxonomy - Terms and Phrases, Question/Sentence Stems, Products

*Analysis - Reasoned extensions of knowledge and generation of new information not already processed*

Mental Process	Terms and Phrases	Question/Sentence Stems	Products
<b>Matching</b> Identifying similarities and differences	associate; categorize; compare/contrast; correlate; create an analogy or metaphor; differentiate; discriminate; distinguish between; examine similarities and differences; link; match; open sort; relate	Distinguish between... Determine the reasonableness of... Explain the relationship between... How is ____ related to...? How can you apply what you learned to develop...? How would you categorize...? How would you classify the type of...? How would you compare/contrast...? How would you organize and show...? Make use of these facts to...? Select facts that demonstrate... Under what conditions would...? What conclusions can you draw...? What elements would you change in order to...? What evidence can you find...? What ideas justify...? What inference can you make...? What is the theme...? What motive is there...? What other way could you plan to...? What questions would you ask in an interview with...? What would have to happen if...? Why do you think...?	Blog post Comparison matrix Database Debate Demonstration Double bubble map Essay Interview Log/Journal entry Media product Review/Critique Open-ended response Presentation Report Simulation Speech/Podcast Survey Venn diagram Video
<b>Classifying</b> Identifying the superordinate and subordinate categories	arrange by; classify; closed sort; file; group; identify a broader category; identify different types; organize; rank		
<b>Analyzing Errors</b> Identifying logical or processing errors	assess; critique; determine the accuracy of; diagnose; edit; examine a claim; evaluate; identify errors; identify misunderstandings; identify what is plausible/improbable; judge the validity; revise		
<b>Generalizing</b> Inferring new generalizations and principles from known information	conclude; create a principle or rule; form conclusions; generalize; identify patterns; infer; interpret; reason		
<b>Specifying</b> Making and defending predictions about what might or will happen in a given situation	deduce; develop an argument for; identify the circumstances; identify what might happen; make and defend a claim; predict; specify; speculate		

*Some terms are classified at more than one taxonomy level depending upon their application.*

# KNOWLEDGE UTILIZATION LEVEL

## Marzano Taxonomy - Terms and Phrases, Question/Sentence Stems, Products

*Knowledge Utilization - Application or use of knowledge to accomplish a specific task*

Mental Process	Terms and Phrases	Question/Sentence Stems	Products
<b>Decision Making</b> Selecting between two or more alternatives that initially appear equal	choose from alternatives; decide; determine the best way; establish and use criteria for; select the best among the alternatives	Assess the value or importance of... Formulate and test a theory for... How can you modify _____ in order to...? How can you overcome...? How will you determine...? How will you decide...? How will you design...? How will you improve...? How will you justify...? How will you overcome...? How will you prove...? Disprove...? How will you reach your goal under these conditions...? How will you solve _____ to achieve your goal...? How will you test...? Predict the outcome if... Suppose you could _____ what would you do...? What are the differing features of...? What changes will you make to solve...? What is your opinion of...? What judgment would you make about...? What would have happened if...? What will you cite to defend your actions...? Which among the following would be the best...? Which of these is most suitable...?	Advertisement Blog post Board game Debate Decision-making matrix Essay Illustration Interview Media product Model Open-ended response Panel Poem Presentation Plan Play Report Short Story Speech/Podcast Student demonstration Song Video
<b>Problem Solving</b> Overcoming an obstacle to a goal	accomplish a goal with limiting conditions; adapt and test; determine a way to; develop a strategy to; identify how to problem solve; invent; modify and try; overcome an obstacle; propose a solution; recommend and prove; resolve; solve		
<b>Experimenting</b> Generating and testing hypotheses to understand physical or psychological phenomenon	based on observation, predict; devise a way to test; experiment; generate and test; hypothesize and test; simulate; test the idea that		
<b>Investigating</b> Examining a past, present, or future situation	conduct an inquiry into; construct an argument; debate; dissect an argument; find out about; investigate; prove; research; take a position on		

*Some terms are classified at more than one taxonomy level depending upon their application.*

# BLOOM/MARZANO/WEBB TAXONOMY CROSSWALK

Bloom's Revised Taxonomy	Marzano's Taxonomy	Webb's Depth of Knowledge
<b>Remembering:</b> <i>Recall previous learned information</i> (define, duplicate, list, memorize, recall, repeat, reproduce, state)	<b>Retrieval:</b> <i>Activation and transfer of knowledge from permanent memory to working memory</i> <i>The processes at this level are sequential.</i>	<b>Recall and Reproduction:</b> <i>Recall a fact, information, or procedure</i> (arrange, calculate, define, draw, identify, list, label, illustrate, match, measure, memorize, quote, recognize, repeat, recall, recite, state, tabulate, use, tell who- what- when- where- why)
<b>Understanding:</b> <i>Explain ideas or concepts; state a problem in one's own words</i> (classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase)	<b>Recognizing → Recalling → Executing</b>	<b>Skill/Concept:</b> <i>Engages mental process beyond habitual response using information or conceptual knowledge—requires two or more steps</i> (apply, categorize, determine cause and effect, classify, collect and display, compare, distinguish, estimate, graph, identify patterns, infer, interpret, make observations, modify, organize, predict, relate, sketch, show, solve, summarize, use context clues)
<b>Applying:</b> <i>Use the information (concept) in a new way</i> (choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write)	<b>Comprehension:</b> <i>Identification of the critical or defining attributes of knowledge</i> <b>Integrating • Symbolizing</b>	<b>Strategic Thinking:</b> <i>Requires reasoning, developing a plan or a sequence of steps, some complexity, more than one possible answer, higher level of thinking than previous two levels</i> (apprise, assess, cite evidence, critique, develop a logical argument, differentiate, draw conclusions, explain phenomena in terms of concepts, formulate, hypothesize, investigate, revise, use concepts to solve non-routine problems)
<b>Analyzing:</b> <i>Distinguish between facts and inferences—separating into component parts</i> (compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test)	<b>Analysis:</b> <i>Reasoned extensions of knowledge and generation of new information not already processed</i> <b>Matching • Classifying • Analyzing Errors • Generalizing • Specifying</b>	<b>Extended Thinking:</b> <i>Requires investigation, complex reasoning, planning, developing, and thinking—probably over an extended period of time</i> <i>Longer time period is not an applicable factor if work is simply repetitive and/or does not require higher-order thinking</i> (analyze, apply concepts, compose, create, critique, defend, design, evaluate, judge, propose, prove, support, synthesize)
<b>Evaluating:</b> <i>Justify a stand or decision; making judgments</i> (appraise, argue, defend, judge, select, support, value, evaluate)	<b>Knowledge Utilization:</b> <i>Application or use of knowledge to accomplish a specific task</i> <b>Decision Making • Problem Solving • Experimenting • Investigating</b>	
<b>Creating:</b> <i>Construct a new product, point of view, or structure</i> (assemble, construct, create, design, develop, formulate, write)		

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