


Bloom's Revised Taxonomy

	Cognitive Process	Verbs
Higher Order Thinking Skills (HOTS)	<p>Creating <i>Putting elements together to form a coherent or functional whole.</i></p>	<p>Designing, constructing, planning, producing, inventing, devising, making, programming, filming, animating, blogging, video blogging, mixing, re-mixing, wiki-ing, publishing, videocasting, podcasting, directing, broadcasting</p>
	<p>Evaluating <i>Making judgments based on criteria and standards through checking and critiquing.</i></p>	<p>Checking, hypothesizing, critiquing, experimenting, judging, testing, detecting, monitoring, blog commenting, reviewing, posting, moderating, collaborating, networking, refactoring, testing</p>
	<p>Analyzing <i>Breaking material or concepts into parts, determining how the parts relate or interrelate to one another or to an overall structure or purpose.</i></p>	<p>Comparing, organizing, deconstructing, attributing, outlining, finding, structuring, integrating, mashing, linking, validating, reverse engineering, cracking, media clipping</p>
	<p>Applying <i>Carrying out or using a procedure through executing, or implementing.</i></p>	<p>Implementing, carrying out, using, executing, running, loading, playing, operating, hacking, uploading, sharing, editing</p>
	<p>Understanding <i>Constructing meaning from different types of functions be they written or graphic messages activities</i></p>	<p>Interpreting, summarizing, inferring, paraphrasing, classifying, comparing, explaining, exemplifying, advanced searches, Boolean searches, blog journalism, twittering, categorizing, tagging, commenting, annotating, subscribing</p>
	<p>Remembering <i>Retrieving, recalling or recognizing knowledge from memory.</i></p>	<p>Recognizing, listing, describing, identifying, retrieving, naming, locating, finding, bullet pointing, highlighting, bookmarking, social networking, social bookmarking, favouriting/local bookmarking, searching, googling</p>
Lower Order Thinking Skills (LOTS)		

Bloom's Revised Taxonomy

Knowledge Dimensions Defined

- Factual** Knowledge that is basic to specific disciplines.
Refers to essential facts, terminology, details or elements students must know or be familiar with in order to understand a discipline or solve a problem in it.
- Conceptual** Knowledge of classifications, principles, generalizations, theories, models, or structures pertinent to a particular disciplinary area.
- Procedural** Information or knowledge that helps students to do something specific to a discipline, subject, area of study.
Refers to methods of inquiry, very specific or finite skills, algorithms, techniques, and particular methodologies.
- Metacognitive** Awareness of one's own cognition and particular cognitive processes.
It is strategic or reflective knowledge about how to go about solving problems, cognitive tasks, to include contextual and conditional knowledge and knowledge of self.

Mobile Apps Organized by Cognitive Process and Knowledge Domain

Knowledge Dimensions	Cognitive Processes					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Factual						
Conceptual						
Procedural						
Metacognitive						

Revised Taxonomy of Educational Objectives*

Cognitive Process Dimension	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Knowledge Dimension</p> <p><i>This revised Bloom's Taxonomy will assist you as you work to improve instruction to ensure that</i></p> <ul style="list-style-type: none"> • standards, lessons, and assessments are aligned. • lessons are cognitively rich. • instructional opportunities are not missed. 	<p>1. Remember: retrieving relevant knowledge from long term memory</p> <ol style="list-style-type: none"> 1. Recognizing 2. Recalling
	<p>2. Understand: determining the meaning of instructional messages</p> <ol style="list-style-type: none"> 1. Interpreting 2. Exemplifying 3. Classifying 4. Summarizing 5. Inferring 6. Comparing 7. Explaining
	<p>3. Apply: carrying out or using a procedure in a given situation</p> <ol style="list-style-type: none"> 1. Executing 2. Implementing
	<p>4. Analyze: Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose</p> <ol style="list-style-type: none"> 1. Differentiating 2. Organizing, 3. Attributing
	<p>5. Evaluate: making judgments based on criteria and standards</p> <ol style="list-style-type: none"> 1. Checking 2. Critiquing
	<p>6. Create: putting elements together to form a novel, coherent whole or make an original product.</p> <ol style="list-style-type: none"> 1. Generating 2. Planning 3. Producing
<p>A. Factual Knowledge: basic elements that students must know to be acquainted with a discipline or solve a problem in it.</p> <ol style="list-style-type: none"> a. Knowledge of terminology b. Knowledge of specific details and elements 	
<p>B. Conceptual knowledge: the inter-relationships among the basic elements within a larger structure that enable them to function together</p> <ol style="list-style-type: none"> a. Knowledge of classification b. Knowledge of principles and generalizations c. Knowledge of theories, models and structures 	
<p>C. Procedural knowledge: how to do something: methods of inquiry, and criteria for using skills, algorithms, techniques and methods</p> <ol style="list-style-type: none"> a. Knowledge of subject specific skills and algorithms b. Knowledge of techniques and methods c. Knowledge of criteria for determining when to use appropriate procedures 	
<p>D. Metacognitive knowledge: knowledge of cognition in general as well as awareness of one's own cognition</p> <ol style="list-style-type: none"> a. Strategic knowledge b. Cognitive tasks, including appropriate contextual and conditional knowledge c. Self-knowledge 	

* Adapted from Lorin W. Anderson, David R. Krathwohl et al (Eds.) *A Taxonomy For Learning,, Teaching, and Assessing: A Revision of Bloom's Educational Objectives* © 2001; published by Allyn and Bacon, Boston, MA © 2001 by Pearson Education; reprinted by permission of the publisher.