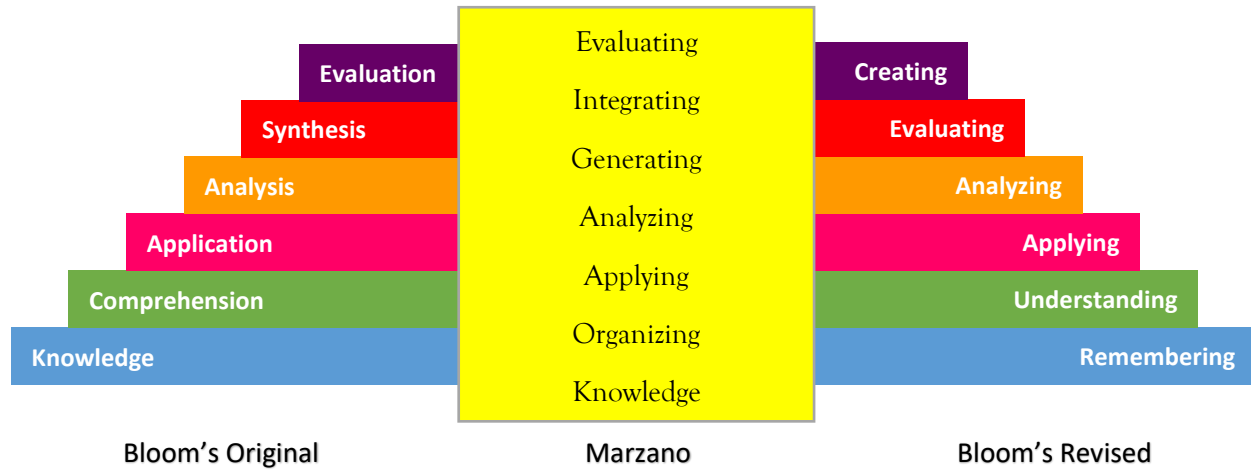


Levels of Thinking and Reasoning



Baylor University
ACADEMY FOR TEACHING & LEARNING

In 1956, a group of educators and educational psychologists led by Benjamin Bloom published a taxonomy of educational objectives. The taxonomy reached wide acceptance. Robert J. Marzano is an educational researcher, speaker, and trainer focusing on school improvement and teacher observation and assessment. In 2000, Marzano published seven “thinking skills” as a new taxonomy. Meanwhile, former Bloom student Lorin Anderson and former Bloom research partner David Krathwohl led a new group in 1995-2000 to develop changes to Bloom’s original taxonomy. In 2001, they published an updated taxonomy to reflect developments in the intervening years and some of Bloom’s own desires for revision.



Terminology	Definition	Synonyms	Example Question
Remembering Can the student recall or remember the information?	Retrieving, recognizing, and recalling relevant knowledge from long-term memory	define, duplicate, list, memorize, recall, repeat, reproduce state	Describe where Harry Potter lived.
Understanding Can the student explain ideas or concepts?	Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining	classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase	Summarize the Deathly Hallows story.
Applying Can the student use the information in a new way?	Carrying out or using a procedure through executing or implementing	choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write	Construct a theory as to why Hermione’s <i>patronus</i> is an otter..
Analyzing Can the student distinguish between the different parts?	Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing	appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test	Differentiate between how Cedric Diggory reacted in the maze and how you would react.
Evaluating Can the student justify a stand or decision?	Making judgments based on criteria and standards through checking and critiquing	appraise, argue, defend, judge, select, support, value, evaluate	Assess whether or not Luna Lovegood is an essential character in the Harry Potter series.
Creating Can the student create a new product or point of view?	Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing	assemble, construct, create, design, develop, formulate, write	Compose a song, skit, poem, or rap to convey the Deathly Hallows story in a new form.