

# Bloom's Taxonomy of Educational Objectives

In the 1950's Benjamin Bloom examined the question of how well a person knew a subject. He discovered that there were different levels of knowing. In any given subject area he found that it was possible to classify how well a person knew a subject area by how that person could use the material in that area. For example, the simplest - or lowest - level of knowledge is when the person can recall and state the facts about the subject material. The second level is when the person can explain the subject material to someone else. The complete taxonomy that Bloom devised is shown below.

## 1. Knowledge

Recalling material you have learned. Remembering facts, principles, steps in a sequence, etc.

## 2. Comprehension

Understanding the material. At this stage you should be able to explain what you know, translate to new forms & symbols and extrapolate.

## 3. Application

At this stage you should be able to use the material in new situations, that is apply concepts, principles, rules, theories and laws to find solutions to new problems - problems you haven't seen before.

## 4. Analysis

At this level you should be able to break things apart so that relationships are understood. For example, you might analyze an amplifier circuit using what you learn about transistors.

## 5. Synthesis

You should be able to put together parts to form a new whole. Engineers do this when they write proposals, design new products, etc.

## 6. Evaluation

Here you should be able to use what you know about a subject area to make critical judgments, rate ideas or objects and to accept or reject materials based on standards. The key skill is the ability to make judgments.

## The McBeath Action Verbs

Definitions	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Bloom's Definition	Remembering previously learned information	Grasping the meaning of information	Applying knowledge to actual situations	Breaking down objects or ideas into simpler parts and seeing how the parts relate and are organized	Rearranging component ideas into a new whole	Making judgments based on internal evidence or external criteria
Verbs	Arrange, define, describe, duplicate, identify, label, list, match, memorize, name, order, outline, recognize, relate, recall, repeat, reproduce, select, state	Classify, convert, defend, describe, discuss, distinguish, estimate, explain, express, extend, generalized, give example(s), identify, indicate, infer, locate, paraphrase, predict, recognize, rewrite, report, restate, review, select, summarize, translate	Apply, change, choose, compute, demonstrate, discover, dramatize, employ, illustrate, interpret, manipulate, modify, operate, practice, predict, prepare, produce, relate, schedule, show, sketch, solve, use, write	Analyze, appraise, breakdown, calculate, categorize, compare, contrast, criticize, diagram, differentiate, discriminate, distinguish, examine, experiment, identify, illustrate, infer, model, outline, point out, question, relate, select, separate, subdivide, test	Arrange, assemble, categorize, collect, combine, comply, compose, construct, create, design, develop, devise, explain, formulate, generate, plan, prepare, propose, rearrange, reconstruct, relate, reorganize, revise, rewrite, set up, summarize, synthesize, tell, write	Appraise, argue, assess, attach, choose, compare, conclude, contrast, defend, describe, discriminate, estimate, evaluate, explain, judge, justify, interpret, relate, predict, rate, select, summarize, support, value