Notes on Bloom's Taxonomy

1) Remember: Recalling facts and basic concepts and answers **in much the same form as it was taught**

To remember, ask about **facts**. (Facts are single accurate statements.)(When did it happen?)

Categories	Alternative Name	Definition and Example	Assessments
1) Recognizing	Identify, list, match, define, label	Searches memory for information that is identical or extremely similar to what was taught	Verification – true / false question Matching – student chooses one item to correspond to another item Multiple choice
2) Recalling	Retrieve, recall, Spell, who, what, when, where	Retrieving relevant knowledge from long-term memory	Low cueing (no hints) What is a meter? High cueing (hints or stems before the question)

2) Understand: Constructs **meaning**, makes **connections** between new information and prior knowledge

To understand, ask about **meaning**. (Why did it happen? What does it mean? How does it connect to...?)

Categories & Process	Alternative Name	Definition	Assessments
1) Interpreting	paraphrasing, representing, translating	**Converting information** from one form to another converting words to words, pictures to words, words to pictures, numbers to words, words to numbers	Information is present in one form and students are asked to put the same information into a different form. In your own words....?
2) Exemplifying	Giving examples	identifying the defining features of the general concept and giving examples **General concept → specific example**	**Selected response:** Select an example from a given set (multiple choice) **Constructed response:** Give an example (short answer)
3) Classifying	classifying, Sorting	Recognizing something belongs to a certain category; detecting relevant features that "fit"	**Selected response:** Multiple choice **Constructed response:**

		Specific example → general concept	Putting items into appropriate categories
4) Inferring	Concluding, predicting	**Finding a pattern** within a series of examples. Prior knowledge based conclusion	**Completion tasks** After given a series of items, students determine what comes next **Oddity tasks** Student must determine which does not belong from three or more
5) Comparing	Comparing Contrasting	Detecting similarities and differences between concepts	**How is _____ like _____?** **Mapping** show how each part of one idea corresponds to another
6) Explaining	Explaining, reasoning	**Shallow** understanding = student understanding is **limited to the context** that was provided **Deep** understanding = students know more interconnected facts about the subject	**Reasoning** Student offers a reason for a given event. Why does a _____do that when you_____ it? **Troubleshooting**

		Student understands not just the parts but the whole and **how a change in one part affects a change in another** part	Student diagnoses what could have gone wrong in a problem. **Predicting** Explain how a change in one part will affect another part What would happen if....?

3) Apply: solving problems in **new** situations by using acquired knowledge, facts and rules

An **exercise** is a task where the student **already knows** the proper **procedure** to use, so it is fairly routinized approach.

A **problem** is a task where the student **initially does not know** what procedure to use to solve the problem, but must figure it out. Students change **given** information to the **goal** state.

Students must understand conceptual knowledge **before** they can apply it.

Skills are a sequence of steps generally ***followed in a fixed order***.

To apply, ask how to use ideas. (What can I do with this idea? How could I use it? When would I use it?)

Categories & Process	**Alternative Name**	**Definition**	**Assessments**
Executing	Carrying out determine	Applying a procedure to a **familiar** task	**Selected response** Multiple choice but have to "show their work" **Constructed response** Complete problems, showing their work
Implementing	Using	Applying a procedure to an **unfamiliar** task	Procedure may have decision points (After completing step 3, should I do step 4a or 4b?)

4) Analyze: break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose.

Categories & Process	**Alternative Name**	**Definition**	**Assessment**
Differentiating	Discriminating, distinguishing, focusing, selecting	Distinguishing relevant from irrelevant parts or distinguishing important from unimportant parts determining how the parts fit into the overall whole Student understands not just the parts but the whole and **how a change in one part affects a change in another** part	Student is given some material and asked to choose which parts are most important Multiple choice / short answer
Organizing	Finding, Integrating outlining, structuring	Student **builds systematic** and coherent **connections** among information	**Selected response** Multiple choice Which of the four graphics best shows the organization of the material? **Constructed response** Produce an outline from the passage

5) Evaluate: Make judgments based on criteria and standards. Criteria most often used are quality, effectiveness, efficiency, and consistency.

Categories & Process	**Alternative Name**	**Definition**	**Assessment**
Checking	Coordinating, detecting, monitoring, testing	Detecting inconsistencies within a process or product detecting the effectiveness of procedure as it is being implemented	
Critiquing	Judging	Detecting inconsistencies between a **product** and external **criteria** detecting the appropriateness of a procedure for a given problem	Judge which of two methods is the best way to solve a given problem

6) **Create**: Put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure.

	Categories & Process	**Alternative Name**	**Definition and Example**
6.1	Generating	Hypothesizing	Coming up with alternative hypotheses based on criteria -Generate hypotheses to account for an observed phenomenon
6.2	Planning	Designing	Devising a procedure for accomplishing some task -Plan a research paper on a given historical topic
6.3	Producing	Constructing	Inventing a product -Build habitats for a specific purpose