

**ATTACHMENT B**  
**BLOOM'S TAXONOMY (Bloom, *Taxonomy of Educational Objectives Handbook*, 1956)**

**Table 1: Example Action Verbs for Each Level of Learning**

Category	Example Action Verbs				
<b>Knowledge</b> (Recall and Understanding)	Associate Compare Contrast Define	Describe Differentiate Distinguish Identify	Indicate List Name Paraphrase	Recognize Repeat Restate Review	Show State Summarize Tell
<b>Application</b>	Calculate Demonstrate Draw Employ	Estimate Give example Illustrate Locate	Measure Operate Perform Prescribe	Record Set up Sketch Solve	Trace Use
<b>Problem-Solving</b> (Analyzing, Synthesizing, Evaluating)	Advocate Analyze Assess Challenge Compose	Conclude Construct Create Critique Debate	Decide Defend Derive Design Evaluate	Formulate Infer Judge Organize Plan	Propose Rank Recommend Select Suggest

**Table 2: Levels of Thinking/Learning**

Category	Dimension	Definition	Example Objectives
Knowledge	Recalling	Rote recall: Know common terms, specific facts, methods, procedures, concepts, principles	<ul style="list-style-type: none"> <li>Name the major bones of the leg.</li> <li>List five causes of joint pain.</li> <li>Define "deep fascia."</li> </ul>
	Comprehending	Interpolation or interpretation: Understand, estimate future implied consequences, justify methods and procedures	<ul style="list-style-type: none"> <li>Explain the autoimmune mechanism.</li> <li>State the present problem in your own words.</li> <li>Describe the process of differential diagnosis.</li> <li>Given x symptoms, compare &amp; contrast y &amp; z approaches to treatment.</li> <li>Provide example of appropriate use of x treatment.</li> </ul>
Application	Applying	Using a concept in a new context: Apply theory, solve problems, construct graphs, demonstrate procedure	<ul style="list-style-type: none"> <li>Use chart to calculate appropriate dosage for a 45-pound child.</li> <li>Apply genetics concept to determine potential outcomes in a pregnant woman with x disease.</li> <li>Perform a physical exam according to established procedure.</li> </ul>
Problem-Solving	Analyzing	Breaking something down and understanding its structure, the relationship between parts, the organizational principles: Recognize unstated assumptions and logical fallacies, distinguish between facts & inferences, determine relevance	<ul style="list-style-type: none"> <li>Diagram the mechanism leading to shortness of breath in interstitial lung disease.</li> <li>Determine which of the patient's symptoms can be explained by the primary diagnosis.</li> <li>Select lab tests which should be done based on patient symptoms, history, and physical exam.</li> <li>Relate the patient's symptoms to side effects of the medicine she is taking.</li> <li>Distinguish between findings which are and are not significant to the presenting problem.</li> </ul>
	Synthesizing	Building a structure/pattern from diverse elements: Write well-organized essay, propose research question, develop plan for solving a problem, formulate a classification scheme	<ul style="list-style-type: none"> <li>Rank order hypotheses concerning the cause of the patient's symptoms.</li> <li>Diagnose the patient's problem.</li> <li>Construct a flow chart which ties together all elements of patient's findings.</li> <li>Create a care map for the treatment of a diabetic patient.</li> <li>Write an article describing a research project.</li> </ul>
	Evaluating	Judging the value of ideas, works, solutions, materials: Judge logical consistency, adequacy of data in support of conclusions, value of work by internal & external standards	<ul style="list-style-type: none"> <li>Select the most effective treatment from an array of options.</li> <li>Select the most qualified candidate for a specified position.</li> <li>Evaluate the reliability and validity of research claims/statistics.</li> <li>Assess peers' and your own SOAP notes based on established criteria.</li> <li>Critique research proposal and provide suggestions for improvement.</li> </ul>

**Table 3: Teaching/Learning Strategies Best Suited for Each Level of Learning**

Desired Dimension	Suggested Presentational Strategies
Knowing and comprehending	Presentation, lecture, question-and-answer, small group discussion, development of learning issues, self-awareness exercises/tests, review sessions, teaching others, independent study, web-based instruction
Applying	Hands-on, lab, demonstration, case study, live or video demonstration, simulation, role-playing, action plan, teaching others, direct patient contact, guided practice with feedback, precepting, role-modeling
Analyzing	Question-and-answer, brainstorming, case study, problem-solving, trouble-shooting, role-playing, article discussion
Synthesizing	Case study, writing, concept mapping, theory and model building, teaching others, developing research questions, direct patient contact
Evaluating	Case study, critical review, self and group assessment/reflection, reflective writing, direct patient contact