

DEPTH OF KNOWLEDGE LEVELS

(The Depth of Knowledge is not determined by the verb, but the context in which the verb is used and the depth of thinking required.)

Level 1: Recall and Reproduction

Requires recall of information, such as a fact, definition, term, or performance of a simple process or procedure. Answering a Level 1 item involves following a simple, well-known procedure or formula. Simple skills and abilities or recall characterize this level.

Level 2: Skills/Concepts

Includes the engagement of some mental processing beyond recalling or reproducing a response. Items require students to make some decisions as to how to approach the question or problem. These actions imply more than one mental or cognitive process/step.

Level 3: Strategic Thinking

Requires deep understanding as exhibited through planning, using evidence, and more demanding cognitive reasoning. The cognitive demands at this level are complex and abstract. An assessment item that has more than one possible answer and requires students to justify the response they give would most likely be a Level 3.

Level 4: Extended Thinking

Requires high cognitive demand and is very complex. Students are expected to make connections - relate ideas within the content or among content areas - and have to select or devise one approach among many alternatives on how the situation can be solved. Due to the complexity of cognitive demand, this level often requires an extended period of time.

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Level 1: Recall and Reproduction Sample Activities

- ✓ Recall elements and details of story structure, such as sequence of events, character, plot and setting.
- ✓ Conduct basic mathematical calculations.
- ✓ Label locations on a map.
- ✓ Represent in words or diagrams a scientific concept or relationship.
- ✓ Perform routine procedures like measuring length or using punctuation marks correctly.
- ✓ Describe the features of a place or people.

Level 2: Skills/Concepts Sample Activities

- ✓ Identify and summarize the major events in a narrative.
- ✓ Use context cues to identify the meaning of unfamiliar words.
- ✓ Solve routine multiple-step problems.
- ✓ Describe the cause/effect of a particular event.
- ✓ Identify patterns in events or behavior.
- ✓ Formulate a routine problem given data and conditions.
- ✓ Organize, represent and interpret data.

Level 3: Strategic Thinking Sample Activities

- ✓ Support ideas with details and examples.
- ✓ Use voice appropriate to the purpose and audience.
- ✓ Identify research questions and design investigations for a scientific problem.
- ✓ Develop a scientific model for a complex situation.
- ✓ Determine the author's purpose and describe how it affects the interpretation of a reading selection.
- ✓ Apply a concept in other contexts.

Level 4: Extended Thinking Sample Activities

- ✓ Conduct a project that requires specifying a problem, designing and
- ✓ conducting an experiment, analyzing its data, and reporting results/ solutions.
- ✓ Apply mathematical model to illuminate a problem.
- ✓ Analyze and synthesize information from multiple sources.
- ✓ Describe and illustrate how common themes are found across texts from different cultures.
- ✓ Design a mathematical model to inform and solve a practical or abstract situation.