

# Appendix V

## TEACHING BY DESIGN USING WEBB'S DEPTH OF KNOWLEDGE MODEL CREATED BY JIM BURKE

These pages offer you a quick-reference guide to using Norman Webb's Depth of Knowledge (DOK) model when you are developing instructional units, assessment tasks, or specific assignments in your content area. Two central concepts in the DOK model are the **cognitive demands** the learning or assessment tasks make on students and the **depth of knowledge or understanding** a given task or question requires to

complete or learn it. The assigned DOK level reflects the degree of cognitive processing a task, topic, text, or test demands. Bloom's taxonomy assumed certain verbs required a level of cognitive processing; in his DOK model, however, Webb, argues that it is what *follows* the verb that determines the complexity of the task. Thus, a word like *describe* could appear at any of the four DOK levels, depending on what one was asked to describe.

### RECALL AND REPRODUCE: We know but do not transform facts, details, terms, or principles.

#### LEVEL ONE

#### DESCRIPTION: LEVEL ONE

Asks students to *remember, list, locate, retell, identify, define*, or use similar skills on assignments or assessments to show that they know certain target knowledge or skills. At this level, the cognitive demands are basic, requiring knowledge and skills that students either do or do not know; that is, Level One questions or tasks do not ask students to use the facts or other details to solve any problems or figure out additional questions.

#### REPRESENTATIVE ACTIONS

- *Identify* all metaphors used in a passage.
- *List* three examples of irony from the text.
- *Retell* what happens to \_\_\_\_ in the text.
- *Define* the word \_\_\_\_ using a dictionary.
- *Locate* all details to include in works cited.
- *Label* each of the types of sentences in a paragraph.
- *Memorize* a passage or a complete poem.
- *Recall* the questions to ask about a poem.
- Find the key facts about \_\_\_\_ in a text.
- Search online using the terms provided.

#### ASSIGNMENT and ASSESSMENT TASKS

- Which definition is more accurate for the word \_\_\_\_ as it is used in line 4?
- What does the author say is the most memorable quality of \_\_\_\_ in his essay?
- What are the elements of a Shakespearean sonnet?
- In his second soliloquy, Hamlet describes himself as: a. \_\_\_\_ b. \_\_\_\_ c. \_\_\_\_ .
- What different definitions does the dictionary offer for the word \_\_\_\_ ?

**SKILLS AND CONCEPTS: We process/transform specified knowledge—and then use or apply it.**

LEVEL TWO

**DESCRIPTION: LEVEL TWO**

Asks students to *infer, organize, predict, compare, classify, show cause-effect, solve simple problems*, or complete similar processes that require students to determine what a word or concept means—based on any available context or background information—and then go beyond the obvious meaning of the word or concept, using it to *estimate, classify, summarize, revise, translate, or modify* something to show they understand it.

**REPRESENTATIVE ACTIONS**

- *Organize* details in order of importance.
- *Compare* how X is similar to Y.
- *Predict* what X will do next based on\_\_\_\_\_.
- *Display* data as a table or graph.
- *Summarize* an author’s argument.
- *Translate* a table or graph into a paragraph.
- *Paraphrase* a specified portion of the text.
- *Distinguish* the effect of X from Y.
- *Define* based on context clues in text.
- *Represent* the story using a plot diagram.

**ASSIGNMENT and ASSESSMENT TASKS**

- How would you visually represent the relationship between X and Y?
- What other words could you use to describe X based on what you know?
- What question is the author trying to answer in this essay or presentation?
- What other defensible claims could you make about this text?
- Which of the following sentences makes the clearest, most effective claim?

**STRATEGIC THINKING AND REASONING: We integrate in-depth knowledge and skills to solve/produce.**

LEVEL THREE

**DESCRIPTION: LEVEL THREE**

Asks students to *assess, develop, draw conclusions, explain events/processes in terms of concepts, solve complicated problems*, and engage in similar higher order thinking skills that require planning, reasoning, analysis, and evaluation. Students combine their deepening conceptual knowledge and growing array of skills to think strategically about how to solve and create. Level Three emphasizes deep understanding of *one* text or source.

**REPRESENTATIVE ACTIONS**

- State the reasoning behind a position and provide relevant evidence that supports it.
- *Investigate* its origins and how it has evolved over time as a result of human intervention.
- *Develop a logical argument* about how a literary character changes over the course of a story and how they contribute to the meaning of the text as a whole; *provide textual evidence* to support any claims.

**ASSIGNMENT and ASSESSMENT TASKS**

- What tone is most appropriate given your task, audience, occasion, or purpose?
- What logic informs the sequence of information in this text, and how does it relate to the author’s (or your own) purpose?
- How could you revise your paper to improve the logic or cohesion of your ideas?
- Explain how this poem honors *and* departs from the sonnet form and how that departure affects the poem’s meaning.

**EXTENDED THINKING: We extend our knowledge to address complex, real problems or questions.**

LEVEL FOUR

**DESCRIPTION: LEVEL FOUR**

Asks students to *extend, integrate, reflect, adjust, design, conduct, and initiate or monitor* authentic problems that have no obvious or predictable solution, drawing on a range of sources, texts of different types and perspectives, often in collaboration with others and over an extended period of time. Level Four thinking demands we extend our thinking across sources, disciplines, and perspectives to solve a problem or create a final product.

**REPRESENTATIVE ACTIONS**

- *Design* a multimedia slide presentation that *documents* the civil rights movement from different perspectives, *analyzing* key moments and *explaining* their effect on the movement and the people involved.
- *Investigate* a substantive topic for an extended time from multiple perspectives that results in a 10-page formal paper presented in a 3- to 5-minute multimedia TED-Talk format to parents and peers.

**ASSIGNMENT and ASSESSMENT TASKS**

- Identify themes that are common to the different texts provided, explaining how these themes are treated and developed.
- Analyze how identity contributes to the meaning of each text, choosing a metaphor that effectively captures what these various sources are saying about identity.
- Write an analysis of two (or more) sonnets, constructing and supporting with evidence a claim about what each says about a subject they have in common.