

DOK DEPTH OF KNOWLEDGE

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WHAT IS DOK?

- DOK was developed by Norman L. Webb. Webb is a senior research scientist with the Wisconsin Center for Education Research and the National Institute for Science Education.
- DOK is based on, but not identical to the work of Bloom (1956).
- DOK measures the degree to which knowledge is elicited from students.
- DOK is a common language educators use to describe the complexity of test items.

DOK LEVEL 1-RECALL & REPRODUCTION

Recall a fact, information, or routine procedure

One right answer



DOK LEVEL 2-SKILL/CONCEPT

Apply information, conceptual knowledge, and procedures

Usually involves application of two or more steps

One right answer




DOK LEVEL 3-STRATEGIC THINKING

Requires reasoning, developing a plan or sequence of steps

Provide support for reasoning or conclusions

More than one possible response or approach



DOK LEVEL 4-EXTENDED THINKING

Requires complex reasoning, planning, and thinking over an extended period of time

Uses real-world applications in new situations

SAME VERB---THREE DOK LEVELS

- DOK 1- Describe three characteristics of metamorphic rocks.
 - Requires simple recall
- DOK 2- Describe the difference between metamorphic and igneous rocks.
 - Requires cognitive processing to determine the differences in the two rock types
- DOK 3- Describe a model that you might use to represent the relationships that exist within the rock cycle.
 - Requires deep understanding of rock cycle and a determination of how best to represent it

Source: <http://www.polk-fl.net/staff/professionaldevelopment/default.htm>

DOK LEVEL 1-RECALL & REPRODUCTION

Products

- Definition
- Fact
- Label
- List
- Categorize
- Outline
- Highlighting

Teacher

- Tells
- Directs
- Shows
- Questions
- Demo
- Compares
- Listens

Student

- Responds
- Remembers
- Memorizes
- Restates
- Describes
- Recognizes
- Recalls

Activities

- Make a timeline
- Write definitions
- Recite a fact
- Write in your own words
- Paraphrase a chapter in the book
- Outline the main points
- Use a basic calculation
- Basic measurement
- Make a chart

DOK LEVEL 2-SKILL/CONCEPT

Products

- Demonstration
- Interview
- Illustration
- Simulation
- Performance
- Model

Teacher

- Shows
- Observes
- Organizes
- Facilitates
- Questions

Student

- Solve problems
- Calculates
- Completes
- Constructs
- Demonstrates
- Compiles
- Illustrates

Activities

- Construct a model to demonstrate how something looks or works
- Practice a play and perform
- Make a diorama to illustrate an event
- Make a map
- Make up a puzzle or game about a topic
- Routine application tasks
- In writing, explain the meaning of
- Make a flowchart
- Write a biography
- Use the steps in the writing process

DOK LEVEL 3-STRATEGIC THINKING

Products	Teacher	Student	Activities
<ul style="list-style-type: none">• Spreadsheet• Graph• Survey• Mobile• Report• Debate• Publishing	<ul style="list-style-type: none">• Probes• Observes• Acts as a resource• Clarifies• Guides• Questions• Dissects	<ul style="list-style-type: none">• Discusses• Debates• Examines• Judges• Justifies• Uncovers• Questions• Disputes• Decides	<ul style="list-style-type: none">• Use a Venn diagram that shows how two topics are the same and different• Design a questionnaire• Conduct a survey• Classify actions of characters• Prepare and conduct a debate• Prepare a list of criteria to judge• Write a persuasive speech• Write a commercial to convince others to purchase your product• Tasks that involve proposing solutions or making predictions• Design something

DOK LEVEL 4-EXTENDED THINKING

Products

- Film
- Story
- Project
- Plan
- Game
- Media product
- Song

Teacher

- Facilitates
- Reflects
- Evaluates
- Extends
- Analyses

Student

- Designs
- Takes risks
- Proposes
- Formulates
- Modifies
- Plans
- Creates

Activities

- Formulate and test hypotheses over time
- Research writing
- Collaborate with a group
- Persuasive writing
- Develop a menu for a new restaurant
- Participate in an internship
- Analyze multiple sources of evidence and draw a conclusion; support the conclusion

DOK 1 & 2 Question Prompts

DOK 1 Recall	DOK 2 Skill/Concept
Who...?	What caused...to happen?
What...?	How would you compare/contrast...?
When...?	How are...alike/different?
Where...?	How would you classify...?
How...?	What can you say about...?
Did...?	What is the pattern...?
Can you recall...?	How would you summarize...?
When did...happen?	What steps are needed to edit...?
Who was...?	How would you estimate...?
How can you recognize...?	How could you organize...?
What is...?	What do you notice about...?
How can you find the meaning of...?	Do you know another instance where...?
How would you...?	Could this have happened in...?
Who discovered...?	Can you group by characteristics...?
What is the formula for...?	What factors would you change...?
Can you identify...?	How is...similar to...?
How would you describe...?	What was the problem with...?
Who stated...?	What were some of the motives behind...?
How many...?	What was the turning point...?
Describe what happened...?	What are the steps to...?
Which is true or false...?	What context clues did you use...?
What happened next...?	What are other possible outcomes...?
What is the main idea...?	Why did ...occur?
Who was the main character...?	Organize the data in a chart...?
What is the definition of...?	Summarize...
Label...	Demonstrate...

DOK 3 & 4 Question Prompts

DOK 3 Strategic Thinking

DOK 4 Extended Thinking (requires extended time for a multi-process activity)

Support...with details and examples.
What facts would you select from the text to support...?
Explain...
Justify...
What is the best answer? Why?
What conclusions can you draw...?
Can you predict the outcome if ...?
What would happen if...?
Can you see a possible solution?
How would you verify ...?
Is there a better solution for...?
Can you elaborate on the reason...?
What is your interpretation of ...? Support your rationale.
Can you formulate a theory for...?
How can we solve...?
How can we improve...?
How many ways can you...?
What is another way...?
What are the features of...?
How is ...related to...?
Why do you agree or disagree...?
Prove or disprove...
Develop a logical argument.
Compare... Contrast.....
How would you describe the sequence of...?

DOK AND COMMON CORE

<http://schools.nyc.gov/Academics/CommonCoreLibrary/ProfessionalLearning/DOK/default.htm>

<http://www.criticalthinking.org/pages/high-school-teachers/807>