Understanding Depth of Knowledge in the Curriculum Frameworks and Assessment

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This presentation in its original format was presented during the 2007 MASS Conference.

The presentation has been modified extensively for independent or group professional development.
Webb’s Web Alignment Tool Tutorial

• Much of the information in this presentation was adapted from this tutorial, which is available to the public. Just “google” Webb’s Web Alignment Tool.

• The tutorial offers explanation and sample items for consideration.

• The more teachers understand about DOK, the better they will be able to prepare their students for statewide tests and for future challenges.
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Modules

- **Module 1**
  - DOK is **not** a verb
  - DOK is **not** about “difficulty”
  - Slides 6 – 15

- **Module 2**
  - DOK is **not** a Performance Level Descriptor
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- **Module 3**
  - Understanding DOK in the *2007 MS Mathematics Framework – Revised*
  - Slides 28 – 38

- **Module 4**
  - Understanding DOK in the *2006 MS Language Arts Framework – Revised*
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- **Module 5**
  - Why DOK Is Important
  - Slides 53 – 69
Beginning at the Beginning: Modules 1 and 2

• What DOK **is** can best be explained by saying first what DOK is NOT.

  ▪ **Module 1:**
    – DOK is **not** a verb.
    – DOK is **not** about the “difficulty” of the task.

  ▪ **Module 2:**
    – DOK is **not** a Performance Level Descriptor (PLD).
    – DOK is **not** a grade-level indicator.
Module 1

What DOK is not –

- DOK is not a verb
- DOK is not about “difficulty”
DOK is *not* a verb –

• Describe
  • – how many apples you see in the picture.
  • – the process of photosynthesis.
  • – how the two political parties are alike.
  • – your analysis of the literary elements in *Snow Falling on Cedars* as the novel reflected the effect of WWII on America.
Verbs are **not** always used appropriately

- Words like *explain* or *analyze* have to be considered in context.
  - “*Explain* to me where you live” does not raise the DOK of a simple rote response.
  - Even if the student has to use addresses or landmarks, the student is doing nothing more than recalling and reciting.
DOK is about what follows the verb

What comes after the verb is more important than the verb itself.

- “Analyze this sentence to decide if the commas have been used correctly” does not meet the criteria for high cognitive processing.
- The student who has been taught the rule for using commas is merely using the rule.
DOK is **not** about difficulty

- Difficulty is a reference to how many students answer a question correctly.
  - How many of you know the definition of *exaggerate*? **DOK 1 – recall**
    - If all of you know the definition, this question is an easy question.
  - How many of you know the definition of *prescient*? **DOK 1 – recall**
    - If most of you do **not** know the definition, this question is a difficult question.
DOK is about intended outcome, not difficulty

- DOK is a reference to the complexity of mental processing that must occur to answer a question, perform a task, or generate a product.
  - Adding is a mental process.
  - Knowing the rule for adding is the intended outcome that influences the DOK.
  - Once someone learns the “rule” of how to add, 4 + 4 is DOK 1 and is also easy.
  - Adding 4,678,895 + 9,578,885 is still a DOK 1 but may be more “difficult.”
DOK is about complexity

- The intended student learning outcome determines the DOK level.
- Every objective in the language arts and mathematics frameworks has been assigned a DOK level.
- Instruction and classroom assessments must reflect the DOK level of the objective or intended learning outcome.
Module 1 Quick Quiz

1) Give an example of a statement that uses a verb that “sounds” like a high DOK but is used inappropriately.

2) Fill in the blanks: What _____ the verb is more _____ than the verb itself when deciding the DOK level.

3) What is the difference between difficulty and complexity?

4) What really determines the DOK level?
Module 1 Quick Quiz Answers

1) Give an example of a statement that uses a verb that “sounds” like a high DOK but is used inappropriately. **Answers will vary.**

2) Fill in the blanks: What follows the verb is more **important** than the verb itself when deciding the DOK level.

3) What is the difference between difficulty and complexity?  
   **See slides #8 and #9**

4) What really determines the DOK level?  
   **The intended student learning outcome**
Module 2

What DOK is not –

– DOK is not a Performance Level Descriptor (PLD)
– DOK is not a grade-level indicator
DOK is **not** a PLD –

- NCLB requires PLD’s for at least three levels, including **Basic**, **Proficient**, and **Advanced**. (Our fourth and lowest level is **Minimal**.)

  - Advanced does **not** always mean DOK 3.
  - Proficient does **not** always mean DOK 2.
  - Basic does **not** always mean DOK 1.
PLD’s and DOK’s

- **Language Arts, Grade 3, 2b:** The student will analyze texts in order to identify, understand, **infer**, or synthesize information. *(DOK 3)*
  - **Sub-objective:** Answer literal and inferential questions about main characters, setting, plot, and theme.

- **Grade 3 Basic PLD:**
  - In reading comprehension: Use texts to identify **literal** and **simple inferential** questions about story elements . . .
Objective b
The student will analyze texts in order to identify, understand, infer, or synthesize information. (DOK 3)

Example Item(s)

1. Read the following passage about “The Burrowing Parrots of Argentina.”

   Based on this passage, which of the following can the reader infer about having a Burrowing Parrot as a pet?

   A. People who like peace and quiet will not be happy with a Burrowing Parrot as a pet.*
   B. People who like colorful birds will not be happy with a Burrowing Parrot for a pet.
   C. Burrowing Parrots do not do well indoors and so would not be good pets.
   D. Burrowing Parrots are very small birds and so would not be good pets.

   **Depth of Knowledge Level: 2**
   **Performance Level: Basic**
The Burrowing Parrot is known as a very noisy bird. Some people like to keep the Burrowing Parrots as pets. They can be very playful. However, if you like the quiet, you will not want one of these birds to keep you company!

Burrowing Parrots seem to enjoy many different foods. They are not fish eaters. Fruits and vegetables are their favorites. They also like grains. If they are kept as a pet, they like pellets that are in several shapes and sizes.

When the Burrowing Parrots build a nest, they line it with small pebbles. They lay three eggs that take about three weeks to hatch. The mother and father parrot help to raise the young. The babies are kept in the nest until they are eight weeks old.

The Earth is filled with amazing animals, including these beautiful birds. The people of Argentina are lucky to have such colorful, lively birds living near them in the cliffs of South America.
DOK is **not** a PLD

- The **total** description for the PLD’s must reflect the **full range** of the content standards in terms of cognitive challenge, cognitive complexity, and depth.

- The PLD for Proficient must reflect the **intended cognitive processes** as set forth in the standards **at the appropriate grade level**.
DOK is **not** a grade-level indicator

- **Proficient**: Students at the proficient level are able to perform **at the level of difficulty, complexity, or fluency** specified by the grade-level content standards.

- Therefore, no matter what the grade level, the DOK of the framework objectives directs the definition of proficient for that grade and content area.
Above and Below Proficient: All Grades

**Advanced:** Students at the advanced level are able to perform at a **high level of difficulty, complexity, or fluency** as specified by the grade-level content standards.

**Basic:** Students at the basic level are able to perform **some** of the content standards **at a low level of difficulty, complexity, or fluency** as specified by the grade-level content standards.
Performance Level Descriptors (PLD’s)

• The Proficient target can be considered a “translation” of the grade-level outcome objectives or intended learning outcomes.

• The Advanced level extends the cognitive demand of some outcome objectives but does not always increase the DOK level.

• The Basic level consists of “enabler” objectives that lead to or are “pieces” of the outcome objectives.
Why DOK is important

- The range of cognitive demand for objectives within each grade (K-12) range from DOK 1 to DOK 4, although no items coded to DOK 4 will appear on the MCT2 or Algebra I or English II subject area tests.

- Teachers at all grade levels need to understand all DOK levels.

- Instruction, assignments, and classroom assessment must incorporate the expectation of rigor for students associated with the DOK levels of all objectives for that grade and content area.
Module 2 Quick Quiz

1) What words are understood by the abbreviation PLD?

2) What is the PLD for Proficient intended to reflect?

3) What is an “enabler” objective?

True or False – explain your answer:

4) Any description found in the Basic PLD is automatically a DOK 1.

5) Elementary teachers really do not need to understand the DOK 3 level.
Module 2 Quick Quiz Answers

1) What words are understood by the abbreviation PLD?
   Performance Level Descriptor

2) What is the PLD for Proficient intended to reflect?
   the level of difficulty, complexity, or fluency specified by the grade-level content standards

3) What is an “enabler” objective?
   one that helps the student achieve the intended learning outcome objective

True or False

4) Any description found in the Basic PLD is automatically a DOK 1. FALSE

5) Elementary teachers really do not need to understand the DOK 3 level. FALSE
Module 3

Understanding DOK in the Frameworks

– Mathematics
DOK and Mathematics

- **Level 1: RECALL** includes knowing information such as facts, definitions, terms, or simple procedures.

- **Level 2: BASIC REASONING** includes the engagement of some mental processing beyond habitual response. Students must make decisions about what they are presented.

Note: A two-step process in a math calculation is NOT automatically a DOK 2 if the steps require only rote or mechanical knowledge or skills.
More DOK and Mathematics

• **Level 3: STRATEGIC THINKING** requires demanding reasoning, using evidence, and a high level of thinking. Justifying answers is a DOK 3 activity.

• **Level 4: EXTENDED THINKING** requires complex reasoning and development of a product, often over an extended period of time.

Note: The extended time period does not automatically raise the DOK level if students merely repeat a rote process.
DOK – Math Examples

- DOK _____: Read, write, and compare decimals in scientific notation.
- DOK _____: Design a statistical experiment to study a problem and communicate the outcomes.
- DOK _____: Construct two-dimensional patterns for three-dimensional models, such as cylinders and cones.
- DOK _____: Compute with numbers (that is, add, subtract, multiply, divide).
Understanding DOK in the Math Framework

- DOK levels may change from grade to grade.
  - Grade 6 Math, 1f: *Explain the relationship(s) among fractions, decimals, and percents and model and represent a specific quantity in multiple ways.*
    - *(DOK 2) – PLD Proficient*
  - Grade 7 Math, 1c: *Convert among decimals, fractions, mixed numbers, and percents.*
    - *(DOK 1) – PLD Basic*
Objective f
Explain the relationship(s) among fractions, decimals, and percents and model and represent a specific quantity in multiple ways.

Example Item(s)

1. 1/8 will convert to what number?
   
   A. 0.125 *
   B. 0.18
   C. 1.8%
   D. 1.25 %

Depth of Knowledge Level: 1

Performance Level: Proficient
Grade 7 Math, 1c Sample Item

Objective c
Convert among decimals, fractions, mixed numbers, and percents.

Example Item(s)

1. 1.52 will convert to what number?

A. 1 13/25  *
B. 15.2%
C. 1 26/500
D. 1,520%
Why DOK does not always change

- Grade 4 math, 1h: Estimate products and quotients of whole numbers to include strategies such as rounding.
  *(DOK 2) – PLD Proficient*

- Grade 5 math, 1g: Estimate sums, differences, products, and quotients of non-negative rational numbers to include strategies such as front-end rounding, benchmark numbers, compatible numbers, and rounding.
  *(DOK 2) – PLD Proficient*
Why DOK does not always change

- Grade 4 math, 1h: *Estimate products and quotients of whole numbers to include strategies such as rounding.*
  
  *(DOK 2) – PLD Proficient*

- Grade 5 math, 1g: *Estimate sums, differences, products, and quotients of non-negative rational numbers to include strategies such as front-end rounding, benchmark numbers, compatible numbers, and rounding.*
  
  *(DOK 2) – PLD Proficient*
Module 3 Quick Quiz

1) In which DOK level do students have to make decisions rather than rely on rote memory?

2) What DOK level is assigned a two-step process?

3) Explain why the DOK level of related objectives sometimes decreases from grade to grade.

4) Why does extended time not always result in a DOK 4 level assigned to the task?

5) Will teachers ever see a sample item that does not align to the DOK level or the PLD for the framework objective?
Module 3 Quick Quiz Answers

1) In which DOK level do students have to make decisions rather than rely on rote memory?
   DOK 2

2) What DOK level is assigned a two-step process?
   The DOK level depends on the mental task; a two-step process is not always DOK 2.

3) Explain why the DOK level of related objectives sometimes decreases from grade to grade.
   If the related objective does not ask for increased mental processing (increased cognitive demand), the student is merely recalling what was learned from the year before.

4) Why does extended time not always result in a DOK 4 level assigned to the task?
   If the mental task is merely asking students to do routine tasks for a period of time, the extended thinking required for a DOK process is not present.

5) Will teachers ever see a sample item that does not align to the DOK level or the PLD for the framework objective?
   Some items may not match the DOK level or the PLD for the objective. These items may be beneficial by “acting” as diagnostic items and/or illustrations to help teachers understand that some items important to student learning may be parts of a scaffolding process that is not directly stated.
Module 4

Understanding DOK in the Frameworks

– Language Arts
DOK and Reading

- **Level 1: RECALL** requires students to recite facts or to use simple skills or abilities requiring only a shallow understanding of the text presented.

- **Level 2: BASIC REASONING** requires both comprehension and subsequent processing of text or portions of text.

DOK 2 items require closer understanding of text; DOK 2 multiple-choice answer options may reflect paraphrasing of the text rather than verbatim wording.
More DOK and Reading

- **Level 3: STRATEGIC THINKING** involves reasoning and planning; students must be able to support their thinking. Justifying answers is a DOK 3 activity.

- **Level 4: EXTENDED THINKING** requires extended activity and application of significant conceptual understanding and higher-order thinking.

Note: The extended time period does not automatically raise the DOK level if students merely repeat a rote process.
DOK and Writing

• **Level 1: RECALL** expects students to write, speak, and edit using the conventions of Standard English. This level includes having students use appropriate grammar, punctuation, capitalization, and spelling.

• **Level 2: BASIC REASONING** expects students to begin connecting ideas, using a simple organizational structure. Applying more complex sentence structure meets the DOK 2 criteria.
More DOK and Writing

- **Level 3: STRATEGIC THINKING** expects students to compose text that demonstrates some synthesis and analysis with multiple paragraphs and complex sentence structure. Students show awareness of their audience and purpose.

- **Level 4: EXTENDED THINKING** requires students to compose multi-paragraph text based upon their ability to synthesize and analyze complex ideas or themes (from multiple sources).
DOK – Reading and Writing Examples

• DOK ____: Identify cause and effect, and understand main idea and purpose implied by text.
• DOK ____: Evaluate the relative accuracy and usefulness of information from different sources.
• DOK ____: Locate, gather, and analyze written information for the purpose of drafting a reasoned report that supports a position.
DOK and Reading in the Language Arts Framework

- DOK levels may change from grade to grade.
  - Grade 6 LA, 2b: *The student will analyze text to understand, infer, draw conclusions, or synthesize information.* (DOK 2) (DOK 2) – PLD Proficient

  - Grade 7 LA, 2b: *The student will analyze text to infer, justify, draw conclusions, synthesize, or evaluate information.* (DOK 3) (DOK 3) – PLD Proficient
Objective b
The student will analyze text to understand, infer, draw conclusions, or synthesize information. (DOK 2)

Example Item(s)

1. Based upon the story “Choices,” what can the reader predict about Sarah’s behavior after the story ends?

   A. Sarah will give Ria a free hall pass for the next time Ria is late.
   B. Sarah’s teacher will be disappointed because Sarah will be late to class.
   C. Sarah will go home and excitedly tell her mom about the fun she had writing Ria a ticket.
   D. Sarah will continue to do her monitoring job well and will try to talk to Ria about the ticket.*

   Depth of Knowledge Level: 2
   Performance Level: Proficient
2. Which of the following statements justifies the order of the events in “The Female Paul Revere”?

A. If Sybil had left her home before the soldier arrived, she could not have rallied the troops.*
B. If the militiamen had not been home before the attack, Sybil could not have rallied the troops.
C. If Sybil’s father had asked Sybil to go before the soldier came, the British would not have attacked.
D. If the soldiers had gathered on Colonel Ludington’s lawn before Sybil warned them, the British would not have attacked.

Depth of Knowledge Level: 3
Performance Level: Proficient
DOK for Writing in the Language Arts Framework

- DOK levels may remain constant from grade to grade.
  - Grade 3 LA, 3b: *The student will compose descriptive text using specific details and vivid language.* (DOK 3) *(DOK 3) – PLD Proficient*
  - Grade 6 LA, 3b: *The student will compose descriptive texts using sensory details and vivid language.* (DOK 3) *(DOK 3) – PLD Proficient*
  - Grade 7 LA, 3b: *The student will incorporate descriptive details into texts including but not limited to narrative, expository, or persuasive text.* (DOK 3) *(DOK 3) – PLD Proficient*
Objective b
The student will compose descriptive text using specific details and vivid language. (DOK 3)

Example Item(s)

1. Joshua wrote the following descriptive paragraph.

(1) My trip to the new toy store was especially exciting to me. (2) Toys were on all the shelves everywhere I looked. (3) A red and silver airplane caught my eye. (4) It was the biggest toy plane I had ever seen, even bigger than my little sister’s bicycle. (5) I want to fly a plane like it when I become a pilot one day.

Which of the following sentences adds more descriptive detail to the paragraph?

A. The wings of the plane stretched almost across the room.*
B. I was so excited because I had never been to the store before.
C. The red and silver plane was in a big room with other planes.
D. When I saw all the toys, I had a hard time deciding what to look at first.

Depth of Knowledge Level: 2
Performance Level: Basic
Grade 3, 3b
DOK, PLD, Sample Item

• This objective assigned a DOK 3.
  ▪ This task was placed in the Basic PLD based on this language: Use the composing process to generate descriptive text using specific details. Notice that “vivid language” is not in this statement.

• The sample items lacks the “vivid language” necessary to move the item to a DOK 3; therefore, the sample item is labeled with DOK 2.

• The Advanced PLD addresses descriptive writing in this way: Evaluate the use of specific details and vivid language in descriptive text.
## Module 4 Quick Quiz

1) Explain the difference between DOK 1 and DOK 2 requirements of student involvement in reading.

2) Explain why DOK levels may change for related reading objectives from grade to grade.

3) Explain why DOK levels may not change from grade to grade for related writing objectives.

4) Explain the relationship between a sample item and the performance level descriptor assigned to the item.
1) Explain the difference between DOK 1 and DOK 2 requirements of student involvement in reading.

DOK 1 requires only shallow involvement; DOK 2 requires comprehension and subsequent processing.

2) Explain why DOK levels may change for related reading objectives from grade to grade.

The related objective at a higher grade may ask for greater cognitive demand (mental processing) through the addition of “task verbs” in the objective.

3) Explain why DOK levels may not change from grade to grade for related writing objectives.

While the related objectives at higher grades may add more to the requirements within the intended outcome product, the cognitive demand (mental processing) imposed upon students to compose a written product remains the same as long as the product is grade-level appropriate – to compose, students must analyze their own thoughts and synthesize a product that represents the statement of these thoughts.

4) Will teachers ever see a sample item that does not align to the DOK level or the PLD for the framework objective?

Some items may not match the DOK level or the PLD for the objective. These items may be beneficial by “acting” as diagnostic items and/or illustrations to help teachers understand that some items important to student learning may be parts of a scaffolding process that is not directly stated.
Module 5

Why DOK Is Important

If the slides in Module 5 are printed for handouts, it is recommended that you use only two slides per page.
How does DOK impact the classroom?

- Teachers can no longer rely solely on “tell-me-what-I-told-you” classroom assessments; they must begin creating “demonstrate-and-apply-what-you-have-learned” assessments to help students become comfortable with the new assessments.

- Grades students earn may need to begin to reflect Performance Level Descriptors (PLD’s), which are based on framework objectives and thus DOK levels.
Building Classroom Assessments

• DOK 2 objectives require assessments with DOK 2 items.
• If a student makes 80% on a classroom test, what do we have to know about that assessment before we can make a judgment about the student’s performance?
• If the test has 10 items and only 3 are DOK 2 items, what do we know about the student’s performance on the DOK 2 objective?
• See this link for guidance in building appropriate assessments:
  http://www.mde.k12.ms.us/ACAD/osa/Brief_Guide_to_Test_Construction_1.pps
Making assumptions

- WHAT numbers do not tell us –
  - Who’s “smarter”? 
  - Who made the best grades?
  - Who mastered the curriculum?
    – Versus
- WHAT numbers should tell us –
  - Did the teacher “hit” the DOK target with instructional activities?
  - Did the teachers appropriately assess students’ performances through classroom assessments that “hit” the correct DOK targets?
  - Did students’ opportunity to learn include feedback that led them to “think” more correctly?
PLD’s as a Translation of the Framework

- **Advanced**: Students at the advanced level are able to perform at a high level of difficulty, complexity, or fluency as specified by the grade-level content standards.

- **Proficient**: Students at the proficient level are able to perform at the level of difficulty, complexity, or fluency specified by the grade-level content standards.

- **Basic**: Students at the basic level are able to perform some of the content standards at a low level of difficulty, complexity, or fluency as specified by the grade-level content standards.
Competency 1 “Vocabulary”
a. The student will apply knowledge of roots and affixes (e.g., non-, trans-, over-, anti-, inter-, super-, semi-, com-, ex-, il-, mid-, under-, sub-, -tion, -or, -ion, -ity, -ment, -ic, -ian, -ist, -ous, -eous, -ious, -ance, -ence, -ive, -en) to determine the meaning of multi-syllabic words. (DOK 2)

Competency 2 “Reading Comprehension”
b. The student will analyze text to understand, infer, draw conclusions, or synthesize information. (DOK 2)
Competency 3 “Writing”
e. The student will compose persuasive text clearly expressing a main idea with supporting details, utilizing effective word choice and organization for a specific purpose and audience. (DOK 3)

Competency 4 “Grammar”
b. The student will apply Standard English mechanics to compose or edit. (DOK 1)
Proficient: Student expectations are defined by the framework.

Students performing at the proficient level:

In vocabulary: Apply knowledge of roots and affixes (com-, ex-, il-, mid-, under-, sub-, ance, -ence, -ive, -en) to determine the meaning of multi-syllabic words. Apply expansive knowledge of words and word meanings to communicate. Use context clues to determine the meanings of multiple meaning words and the figurative meanings of text. Use reference materials to evaluate word choice in a variety of texts and to determine meaning. Analyze and evaluate vocabulary usage based on appropriateness for context and purpose.

In reading comprehension: Apply knowledge of text features, parts of a book, text structures, and genres (plays) to gain information and analyze texts. Analyze text to infer (cause and effect based on sequence of events; predict outcomes), draw conclusions, or synthesize information. Generate an appropriate summary or paraphrase of events or ideas in literary text, literary non-fiction, and informational text of increasing length, complexity, and difficulty, citing text-based evidence. Interpret increasingly complex literary text, literary non-fiction, and informational text to compare and contrast information, citing text-based evidence. Analyze facts, opinions, and tools of persuasion (plain folks, tabloid thinking, shock tactics and fear, intertextual references) in text.

In writing: Use an appropriate composing process to produce descriptive text, incorporating sensory details; narrative text, utilizing effective organization and vivid word choice containing multiple events; informational text including but not limited to texts containing chronological order, procedure, cause and effect, order of importance, and problem/solution; persuasive text utilizing effective word choice and organization; text comparing and contrasting findings based on inquiry and research.

In grammar: Apply knowledge of standard English grammar (direct and indirect objects; transitive and intransitive verbs; future perfect tense; subject-verb agreement in sentences with indefinite pronouns, compound subjects, and prepositional phrases separating subject and verb; indefinite and relative pronouns) and standard English mechanics (commas with introductory clauses and nonessential clauses; underlining/italics with plays and television shows) to compose or edit. Apply knowledge of sentence structure (adjective clauses, adverb clauses) to compose or edit. Spell words commonly found in sixth-grade-level texts.
Basic: Student expectations may include an enabler objective or “pieces” of an objective.

Students performing at the basic level:

**In vocabulary:** Identify of roots and affixes in multi-syllabic words; identify and produce grade-level appropriate synonyms, antonyms, and homonyms, identify figurative language in text of increasing length, complexity and difficulty.

**In reading comprehension:** Recognize, identify, and use text features, parts of a book, text structures, and genres to understand text. Recognize and identify an appropriate summary or paraphrase of events or ideas in text of increasing length, complexity, and difficulty. Identify and compare story elements, literary devices, sound devices, and author’s purpose in text of increasing length, complexity, and difficulty. Recognize and identify fact, opinion, and tools of persuasion in text of increasing length, complexity and difficulty.

**In writing:** Use an appropriate composing process to produce grade-level descriptive text, using specific details; narrative text, relating an event with a clear beginning, middle, and end; informational text, clearly expressing a main idea with supporting details; text based on inquiry and research presenting paraphrased information.

**In grammar:** Recognize the use of standard English grammar (direct and indirect objects; transitive and intransitive verbs; future perfect tense; subject-verb agreement in sentences with indefinite pronouns, compound subjects, and prepositional phrases separating subject and verb; indefinite and relative pronouns) and standard English mechanics (commas with introductory clauses and nonessential clauses; underlining/italics with plays and television shows). Recognize sentence structure incorporating adjective and adverb clauses.

*Persuasive writing is not included at this level.*
Advanced: Student expectations are stated for high cognitive levels.

Students performing at the advanced level:

**In vocabulary:** Justify the use of context clues used to determine meaning of multiple meaning words or to infer meaning of figurative language. Justify vocabulary usage based on appropriateness for context and purpose. Justify selection of word choice based on use of reference materials.

**In reading comprehension:** Justify an inferred outcome, synthesis, or conclusion based on text-based evidence in text of increasing length, difficulty, and complexity. Justify the use of tools of persuasion for their effectiveness in text of increasing length, difficulty, and complexity.

**In writing:** Based on audience and purpose, justify an appropriate composing process utilizing vivid word choice and effective organization to produce or evaluate descriptive, narrative, informational, or persuasive text of increasing complexity and length. Justify text comparing and contrasting findings composed in a variety of modes based on inquiry and research.

**In grammar:** Apply knowledge of standard English grammar purposefully using future perfect tense to achieve a purpose. Apply knowledge of standard English mechanics and sentence structure purposefully including introductory clauses, nonessential clauses, and adjective and adverb clauses to produce texts with sophisticated grade-level syntax.
DOK, PLD’s, and Test Blueprints

• For NCLB alignment, state assessments must offer minimally 50% of the items at the DOK level specified in the framework for the objective being assessed.

• For NCLB alignment, state assessments must offer items at each PLD level: Basic, Proficient, and Advanced.

• Because the frameworks define “proficient” within the objectives, the largest percentage of items on state assessments must be built to the “proficient” level.
## DRAFT Language Arts Blueprint

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<td>1. The student will use word recognition and vocabulary (word meaning) skills to communicate.</td>
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<td>2. The student will apply strategies and skills to comprehend, respond to, interpret, or evaluate a variety of texts of increasing length, difficulty, and complexity.</td>
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<td>3. The student will express, communicate, evaluate, or exchange ideas effectively.</td>
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<td>4. The student will apply Standard English to communicate.</td>
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NOTE: The number of items per competency for the Language Arts Framework is based upon a weighted average.
# DRAFT Math Blueprint

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*Note: Minimum of seven (7) items for each competency*
Teaching DOK by Modeling Thinking

- Teachers must feel comfortable with DOK – so comfortable that they are able to model the cognitive processing aloud.
- Feedback for students must include not merely the “why” an answer was incorrect but also the “thinking” process that leads to the correct answer.
- Research uses cognitive labs to gather information about how students think. Classroom teachers need to become “researchers” so that they will better understand what their students do or do not do in their cognitive processing.
Points to Ponder

• Dr. Phil Daro, who spoke at the MASS conference, addressed the definition and function of “time on task” when that time is spent keeping students engaged in an activity rather than engaged in learning. NOT ALL ACTIVITIES HELP STUDENTS LEARN.
  ▪ How do educators know the difference?

• Another point he made is that teachers who do not feel competent in the content area are LESS likely to be interactive in their instruction.
  ▪ Do teachers need help building background knowledge to meet the instructional challenge of including DOK in classroom activities and assessments?
  ▪ Would teachers be willing to teach a lesson to peers and/or administrators?
1) Explain why classroom assessments must mirror the DOK level of the target objectives.

2) Explain three things test results should represent.

3) What are two important NCLB requirements for alignment between state frameworks and state assessments?

4) What is meant by “the PLD’s are a translation of the frameworks”? 
Module 5 Quick Quiz Answers

1) Explain why classroom assessments must mirror the DOK level of the target objectives.
   If students are not assessed with items that target appropriate DOK levels, students will not be prepared for those items on the state assessment, and teachers will not really know how their students will perform.

2) Explain three things test results *should* represent.
   a) that teachers taught using appropriate DOK instructional activities
   b) that teachers assessed with items targeting appropriate DOK levels
   c) that teachers offered feedback to students who chose the wrong answer; the feedback was intended to help students learn how to think differently

3) What are two important NCLB requirements for alignment between state frameworks and state assessments?
   a) minimally 50% of the state assessment items must mirror the appropriate DOK level
   b) state assessments must have items that reflect all three PLD categories; the largest percentage must mirror the Proficient PLD

4) What is meant by “the PLD’s are a translation of the frameworks”?
   Every objective in the framework has become a statement in the PLD document; most objectives are translated into the Proficient PLD, but pieces of objectives or enabler objectives have been translated into the Basic PLD. Statements extending the original targets of the objectives are translated into the Advanced PLD.