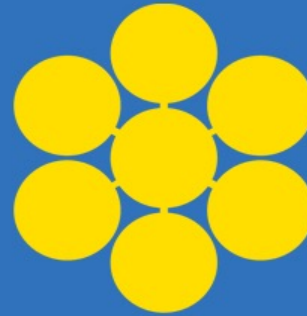




pennsylvania
DEPARTMENT OF EDUCATION

SAS



**Standards
Aligned
System**

Understanding the PA Core Standards

Importance of Standards



The standards are like the building code. Architects and builders must attend to them but they are not the purpose of their design...the house to be built or renovated is designed to meet the needs of the client in a functional and pleasing manner-while also meeting the building code along the way.

(Wiggins and McTighe)

- What are the PA Core Standards?
- What is the purpose of the Anchors and Eligible Content?
- What are the instructional implications in teaching the PA Core Standards?
- How do these standards align with my curriculum and impact instruction?

PA Core Standards English Language Arts & Literacy

Foundational Skills

A necessary component of an effective, comprehensive reading program designed to develop proficient readers.

Reading Informational Text

Enables students to read, understand, and respond to informational texts.

Reading Literature

Enables students to read, understand, and respond to literature.

Writing

Develops the skills of informational, argumentative, and narrative writing as well as the ability to engage in evidence based analysis of text and research.

Speaking & Listening

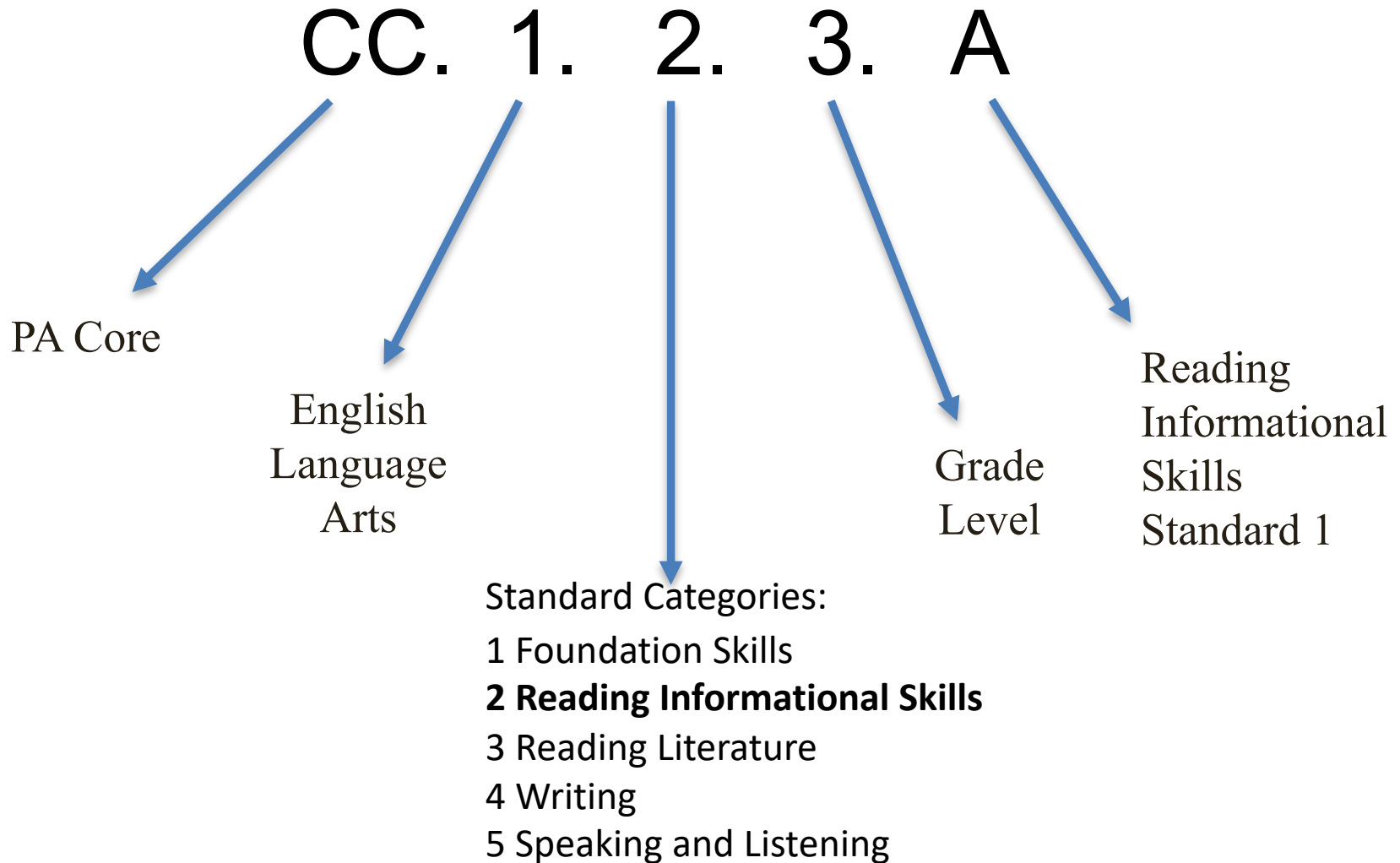
Focuses students on communication skills that enable critical listening and effective presentation of ideas.

- ⇒ Appendix A: Text exemplars illustrating complexity, quality, and range of reading appropriateness
- ⇒ Appendix B: Annotated samples of student writing at various grades
- ⇒ PA Core – Reading and Writing for Science and Technical Subjects 6-12
- ⇒ PA Core – Reading and Writing for History and Social Studies 6-12

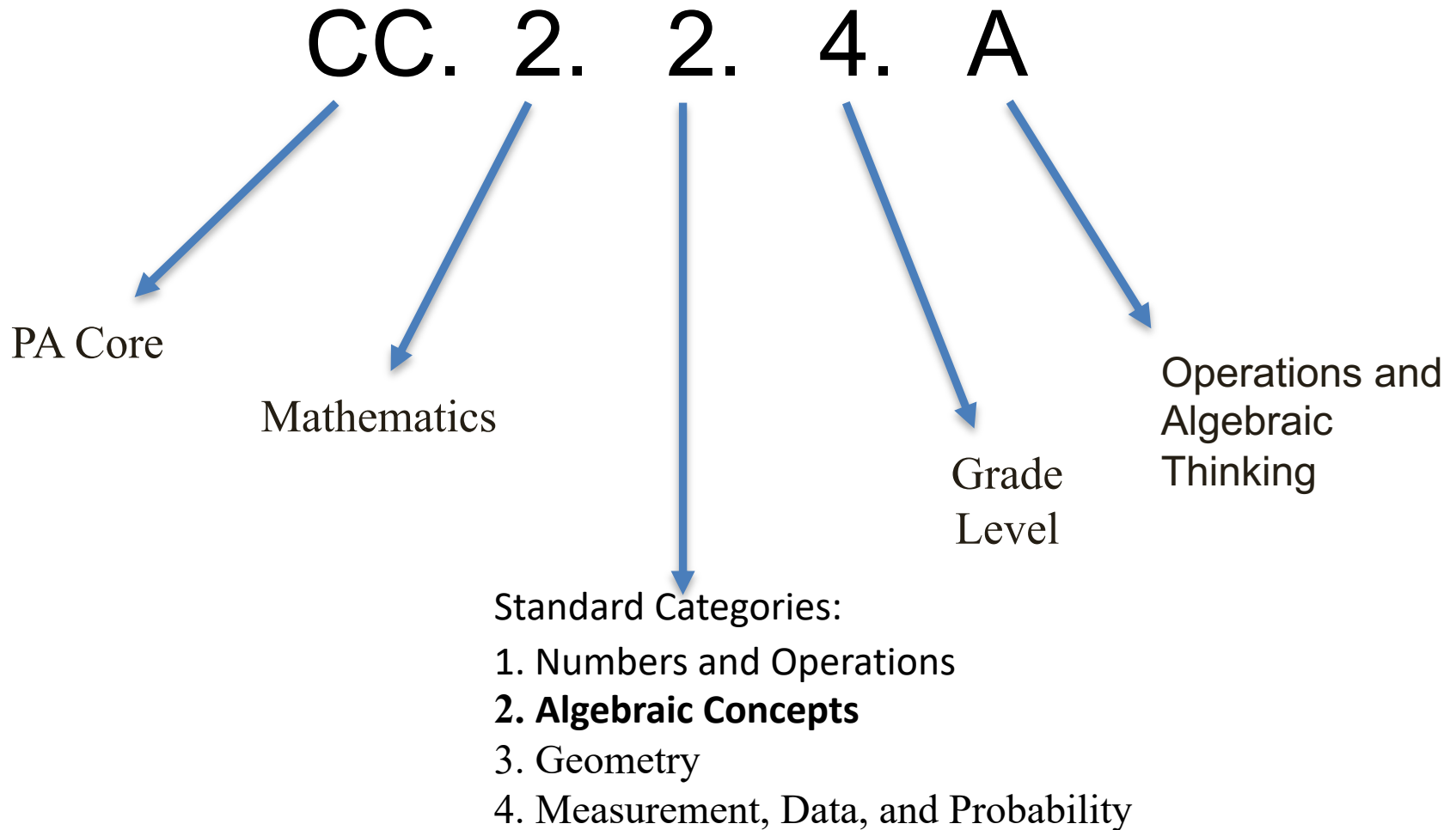


Mathematical Standards: Development and Progression												
Standards for Mathematical Practice												
Make sense of problems and persevere in solving them. Construct viable arguments and critique the reasoning of others. Use appropriate tools strategically. Look for and make use of structure.						Reason abstractly and quantitatively. Model with mathematics. Attend to precision. Look for and express regularity in repeated reasoning.						
	PreK	K	1	2	3	4	5	6	7	8	HS	
2.1 Numbers and Operations	(A) Counting & Cardinality											
		(B) Numbers and Operations in Base Ten					(D) Ratios and Proportional Relationships			(F) Number and Quantity		
				(C) Numbers and Operations — Fractions			(E) The Number System					
2.2 Algebraic Concepts	(A) Operations and Algebraic Thinking						(B) Expressions and Equations			(D) Algebra		
										(C) Functions		
2.3 Geometry	(A) Geometry											
2.4 Measurement, Data, and Probability	(A) Measurement and Data						(B) Statistics and Probability					





PA Core Standard Math Naming Conventions



- [Download the standards](#) for your content area.
- Scan through the document and focus on your grade level/course.
 - How are the standards organized?
 - What questions might you have about the standards?

Vertical Progression of a Standard

- The SAS Vertical Viewer offers a grade-by-grade progression of how the standards “grow.”
- Access the [SAS Vertical Viewer](#) and select a standard in your grade level.
 - What changes from grade to grade as you follow the standard through the grades?
 - How does the standard grow in complexity?

Emphasis Guides detail the major concepts/topics for a grade level.

Emphasis Guide - Grade 4

ELA

CONTINUED EMPHASIS	SPECIFIC PA CORE EMPHASIS
Comprehension Skills (Fiction and Non-Fiction)	<ul style="list-style-type: none"> Increasing reading of non-fiction texts (goal of 50% @ end of Grade 4) (Introduction to ELA: Key Design Considerations) Reading mythology, traditional literature, and multicultural texts (CC.4.R.1.4) (CC.1.3.4.H, CC.1.3.4.K) Comparing point of view across texts (CC.1.2.4.D) (CC.1.3.4.D) Assessing how illustrations/multi-media contribute to text presentation (CC.1.2.4.G) Providing explicit support when drawing inferences (CC.1.2.4.B) (CC.1.2.4.C) Citing reasons and evidence used by the author (CC.1.2.4.H) (CC1.3.4.B) Integrating information on a single topic from two texts (CC.1.2.4.I) (CC.1.5.4.C)
Vocabulary Development	<ul style="list-style-type: none"> Using multiple strategies to determine meaning of unknown words (context clues) (CC.1.1.4.E) (CC.1.2.4.K) (CC.1.3.4.I) Developing vocabulary through the use of dictionaries and thesaurus (CC.1.2.4.K) (CC.1.3.4.I) Incorporating the use of figurative language, word relationships, and nuances to determine word meaning (CC.1.2.4.F, CC.1.3.4.F)
Word Recognition Skills Decoding Skills	<ul style="list-style-type: none"> Using combined knowledge of all letter/sound correspondence, syllabication patterns, and morphology (CC.1.1.4.D)
Fluency	<ul style="list-style-type: none"> Connecting fluency explicitly to comprehension (CC.1.1.4.E) Instructing fluency for accuracy, expression, and rate (CC.1.1.4.E)
Types of Writing Quality of Writing	<ul style="list-style-type: none"> Providing writing activities that that require a response to reading (CC.1.4.4.A) Providing writing activities that require varied time frames for completion (CC.1.4.4.X)
Research	<ul style="list-style-type: none"> Undertaking research projects that build upon comparisons made in text(s) (CC.1.4.4.V) Analyzing and reflecting upon text sources and citing evidence in research (CC.1.4.4.W)



Emphasis Guide - Grade 4 Math

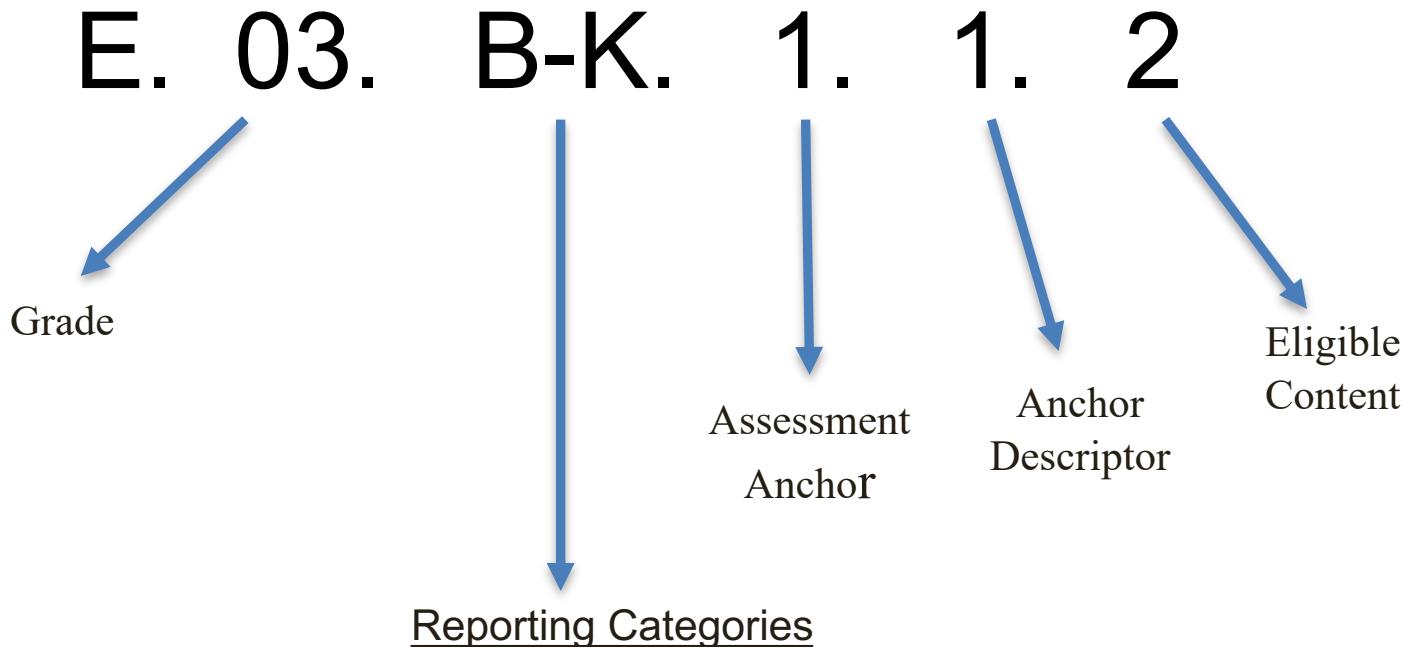
Less emphasis on:	More emphasis on:
	<p>Standards for Mathematical Practice</p> <ul style="list-style-type: none"> • Describe mathematical "habits of mind" • Standards for mathematical proficiency: reasoning, problem solving, modeling, decision making, and engagement • Connect with content standards in each grade
<p>Numbers & Operations</p> <ul style="list-style-type: none"> • Operations with decimals • Fluency in the use of basic facts for the four operations • Estimation prior to solving 	<p>Numbers & Operations</p> <ul style="list-style-type: none"> • Fractions <ul style="list-style-type: none"> ○ Decomposing ○ Addition and subtraction (including mixed numbers) ○ Multiply a fraction by a whole number ○ Decimal notation ○ Equivalence, comparing & ordering • Factors and multiple to 100
<p>Measurement</p> <ul style="list-style-type: none"> • Time and elapsed time • Estimate measurements 	<p>Measurement</p> <ul style="list-style-type: none"> • Conversions of measurements • Measuring angles with a protractor • Identify types of angles (acute, right, obtuse)



- [Download the Emphasis Guide](#) for your grade level.
- Scan the areas of emphasis and consider they relate to the [Long Term Transfer Goals, Big Ideas, and Essential Questions](#).
- How well does your curriculum align with the areas of emphasis?

Anchor and Eligible Content documents are a blueprint for state assessments.

ELA Assessment Anchors and Eligible Content



A = Literature Text

B = Informational Text

A-K and **B-K = Key Ideas and Details**

A-C and B-C = Craft and Structure/Integration of Knowledge and Ideas

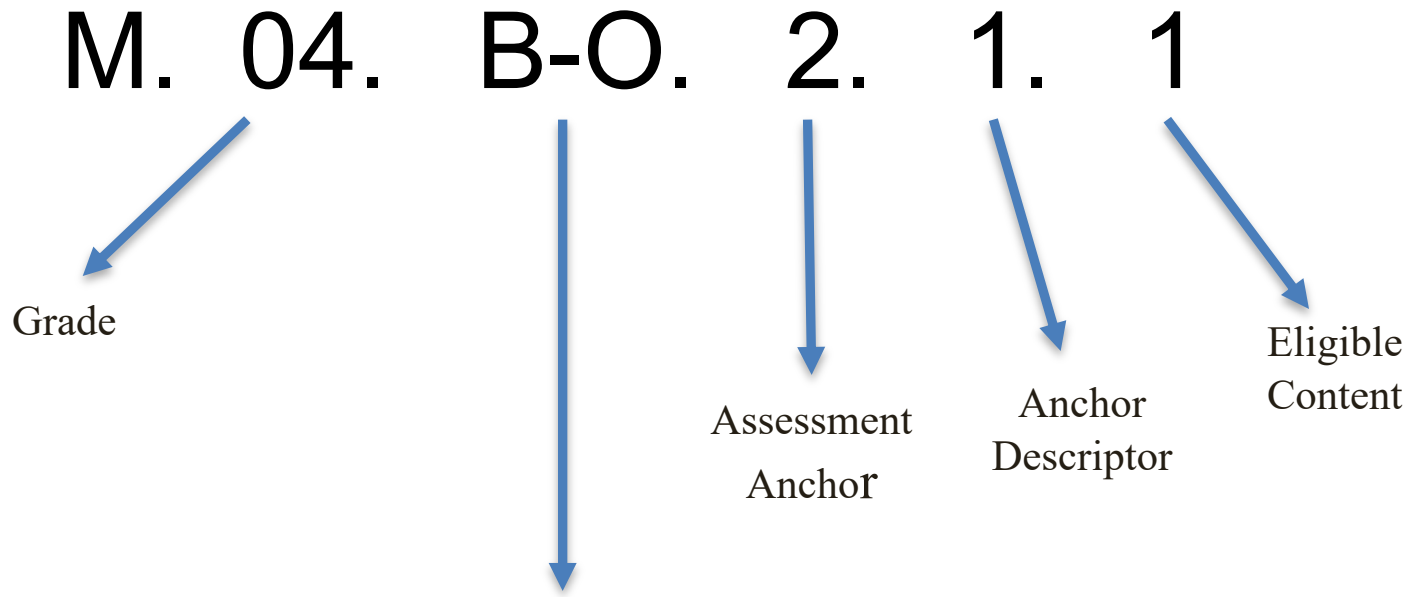
A-V and B-V = Vocabulary Acquisition and Use

C = Writing

D = Language



Math Assessment Anchors and Eligible Content



Reporting Categories

- A-T = Numbers and Operations in Base Ten
- A-F = Numbers and Operations—Fractions
- B-O = Operations and Algebraic Thinking**
- C-G = Geometry
- D-M = Measurement and Data



- Download the AA/EC for your content area: [PSSA \(3-8\)](#) or [Keystone Exams](#).
- Read through the introductory pages and note the following:
 - What are the reporting categories?
 - What is the relationship between Anchor and Eligible Content?

Select a reporting category and note the relationship among the Anchor, Anchor Descriptor, the Eligible Content, and the related standard.

- What is the purpose of the Eligible Content?
- Where should you focus your instruction?

How do the standards grow in rigor as grade levels increase?

Like assessments, standards also reflect a DOK.

- A scale of cognitive demand (thinking) to align standards with assessments
- Based on the research of Norman Webb, University of Wisconsin Center for Education Research and the National Institute for Science Education
- Defines the “ceiling” or highest DOK level for each Core Content standard for the state assessment
- Guides item development for state assessments



- **Level 1:** Recall and Reproduction
- **Level 2:** Skills & Concepts
- **Level 3:** Strategic Thinking
- **Level 4:** Extended Thinking



DEFINITIONS

1.0	Student recalls facts, information, procedures, or definitions.
2.0	Student uses information, conceptual knowledge, and procedures.
3.0	Student uses reasoning and develops a plan or sequence of steps; process has some complexity.
4.0	Student conducts an investigation, needs time to think and process multiple conditions of problem or task.



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**.



The verb is not the indicator of DOK.

- **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)
- **DOK 2- *Describe*** the difference between metamorphic and igneous rocks. (requires cognitive processing to determine the differences in the two rock types)
- **DOK 1- *Describe*** three characteristics of metamorphic rocks. (simple recall)



Using PA Core to identify the DOK of a Standard Math (Geometry)

Grade 3	Grade 7	High School
CC.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters.	CC.2.3.7.A.2 Visualize and represent geometric figures and describe the relationships between them.	CC.2.3.HS.A.2 Apply rigid transformations to determine and explain congruence.



Identify the DOK of a Standard ELA (Text Analysis)

Grade 3	Grade 7	High School
<p>CC.1.2.3.B Ask and answer questions about the text and make inferences from text; refer to text to support responses.</p>	<p>CC.1.2.7.B Cite several pieces of textual evidence to support analysis of what the text says explicitly, as well as inferences, conclusions, and/or generalizations drawn from the text.</p>	<p>CC.1.2.11–12.B Cite strong and thorough textual evidence to support analysis of what the text says explicitly, as well as inferences and conclusions based on and related to an author’s implicit and explicit assumptions and beliefs.</p>



How do standards guide my teaching?