

# Score Reporting for Interim and Summative Assessments: Claims & Targets

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# Overview

## A Balanced Assessment System

### A Balanced Assessment System

The Smarter Balanced Assessment Consortium is committed to ensuring that all students leave high school prepared for postsecondary success. A balanced assessment system — which includes the formative assessment process as well as interim and summative assessments — provides tools to improve teaching and learning.

The formative assessment process is an essential component of a balanced assessment system.



#### Digital Library

*Available Now*

Resources to help teachers improve classroom-based assessment practices



#### Interim Assessments

*Available Beginning Winter 2014-15*

Optional online assessments to check student progress and help teachers plan and improve instruction



#### Summative Assessments

*Available Spring 2015*

Year-end assessments in math and English for grades 3-8 and 11 that use both computer adaptive testing and performance tasks



# Interim Assessment

**Table 1. Three Assessment Types**

	<b>Formative</b>	<b>Interim</b>	<b>Summative</b>
<b>Typical Use</b>	feedback to adjust ongoing teaching and learning	monitoring student progress	student placement; school and district accountability
<b>Frequency of Administration</b>	continual; multiple times a day	generally two to six times per school year	usually once a school year
<b>Scope of Administration</b>	student and classroom	usually school or district	usually state

*Note.* Sourced from *Interim assessment practices and avenues for state involvement* by the TILSA SCASS Interim Assessment Subcommittee, 2008, p. 4.

Although data from all three kinds of assessment can be used to improve teaching and learning, Marshall (2006) argues that interim assessment presents the most powerful entry point for principals to work to improve instruction and boost student achievement.

*Building Valid and Useful Interim Assessments, Marianne Perie, Univ. of Kansas, September 30, 2014*



# Use of data for teaching and learning

- Using student data to plan forward and make changes to instruction & impact learning while there is still time to change the outcome

***Digital Library***

***Interim Assessments***

- Using student data to look back  
***ISAT (Summative Assessment)***



# [Idaho.portal.airast.org](http://Idaho.portal.airast.org)

TIDE

- Prepare for the testing
- Set up users, students, rosters

TDS

- Deliver the assessments

THSS

- Score responses (Interim only)

ORS

- View data/access reports



# Today's Topics

- 1. ONLINE REPORTING SYSTEM (ORS)**
- 2. CLAIMS AND TARGETS**
- 3. CLASSROOM INSTRUCTION RESOURCES**



# Online Reporting System (ORS)



# ORS Training Materials



Test Administration  
Resources

[Online Reporting System \(ORS\) User Guide](#) [DOCX]

This user guide provides information about all ORS's features, including instructions for viewing score reports, test management resources, creating and editing rosters, and searching for students.

[Online Reporting System Module](#)[PPTX] Updated January 8, 2015

This module is designed to help navigate the Online Reporting System (ORS). This training module includes examples of all features on ORS.



# Score Reporting Aggregate

**Test:** Smarter Summative Mathematics Grade 5  
**Year:** 2014-2015  
**Name:** Demo School 1

## Legend: Achievement Levels

■ Level 1   
 ■ Level 2   
 ■ Level 3   
 ■ Level 4

## Average Scale Score, Percent Proficient and Percentage in Each Achievement Level Smarter Summative Mathematics Grade 5 Test for Students in Demo School 1

Breakdown By:  Test Event:   Comparison: ON

Name	Number of Students	Average Scale Score	Percent Proficient	Percentage in Each Achievement Level
State	225,500	2540 ±5	70%	<div style="display: flex; justify-content: space-between;"> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> 14                             </div> <div style="width: 10px; height: 10px; background-color: yellow; margin-right: 5px;"></div> 16                         </div> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: green; margin-right: 5px;"></div> 49                             <div style="width: 10px; height: 10px; background-color: blue; margin-left: 5px; margin-right: 5px;"></div> 21                         </div>
Demo District A (001)	5,585	2535 ±5	68%	<div style="display: flex; justify-content: space-between;"> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> 8                             </div> <div style="width: 10px; height: 10px; background-color: yellow; margin-right: 5px;"></div> 24                         </div> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: green; margin-right: 5px;"></div> 52                             <div style="width: 10px; height: 10px; background-color: blue; margin-left: 5px; margin-right: 5px;"></div> 16                         </div>
Demo School 1 (001-01)	500	2540 ±5	70%	<div style="display: flex; justify-content: space-between;"> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> 11                             </div> <div style="width: 10px; height: 10px; background-color: yellow; margin-right: 5px;"></div> 19                         </div> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: green; margin-right: 5px;"></div> 54                             <div style="width: 10px; height: 10px; background-color: blue; margin-left: 5px; margin-right: 5px;"></div> 16                         </div>
Demo Teacher A	60	2450 ±5	66%	<div style="display: flex; justify-content: space-between;"> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> 14                             </div> <div style="width: 10px; height: 10px; background-color: yellow; margin-right: 5px;"></div> 20                         </div> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: green; margin-right: 5px;"></div> 49                             <div style="width: 10px; height: 10px; background-color: blue; margin-left: 5px; margin-right: 5px;"></div> 17                         </div>
Demo Teacher B	62	2540 ±5	70%	<div style="display: flex; justify-content: space-between;"> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> 12                             </div> <div style="width: 10px; height: 10px; background-color: yellow; margin-right: 5px;"></div> 18                         </div> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: green; margin-right: 5px;"></div> 50                             <div style="width: 10px; height: 10px; background-color: blue; margin-left: 5px; margin-right: 5px;"></div> 20                         </div>
Demo Teacher C	45	2610 ±5	74%	<div style="display: flex; justify-content: space-between;"> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> 10                             </div> <div style="width: 10px; height: 10px; background-color: yellow; margin-right: 5px;"></div> 16                         </div> <div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; background-color: green; margin-right: 5px;"></div> 53                             <div style="width: 10px; height: 10px; background-color: blue; margin-left: 5px; margin-right: 5px;"></div> 21                         </div>



# Score Reporting - Claims

Test: Smarter Summative Mathematics Grade 5  
 Year: 2014-2015  
 Name: Demo District

### Legend: Claims Performance Category

■ % Below Standard    ■ % At/Near Standard    ■ % Above Standard

## Average Scale Score, Percent Proficient and Percentage in Each Claim Performance Level Smarter Summative Mathematics Grade 5 Test for Students in Demo District

Breakdown By:  Test Event:   Comparison: ON

Name	Number of Students	Average Scale Score	Percent Proficient	Claims	Percentage in Each Claims Performance Category
State	225,500	2540 ±5	70%	<b>Mathematics</b>	
				Concepts & Procedures	14 16 70
				Problem Solving and Modeling & Data Analysis	12 18 70
				Communicating Reasoning	16 14 70
Demo District (001)	5,585	2535 ±5	68%	<b>Mathematics</b>	
				Concepts & Procedures	8 24 68
				Problem Solving and Modeling & Data Analysis	11 21 68
				Communicating Reasoning	5 27 68
Demo School 1 (001-01)	500	2540 ±5	70%	<b>Mathematics</b>	
				Concepts & Procedures	11 19 70
				Problem Solving and Modeling & Data Analysis	10 20 70
				Communicating Reasoning	12 18 70
Demo School 2 (001-02)	600	2450 ±5	66%	<b>Mathematics</b>	
				Concepts & Procedures	14 20 66
				Problem Solving and Modeling & Data Analysis	16 18 66
				Communicating Reasoning	12 22 66



Legend: Claims Performance Category

■ %Below Standard ■ %At/Near Standard ■ %Above Standard

## Average Scale Score, Percent Proficient and Percentage in Each Claims Performance Level Smarter Interim Comprehensive Assessment ELA/Literacy Grade 4 Test for Students in Demo District 9999

Breakdown By: ALL

Comparison: ON

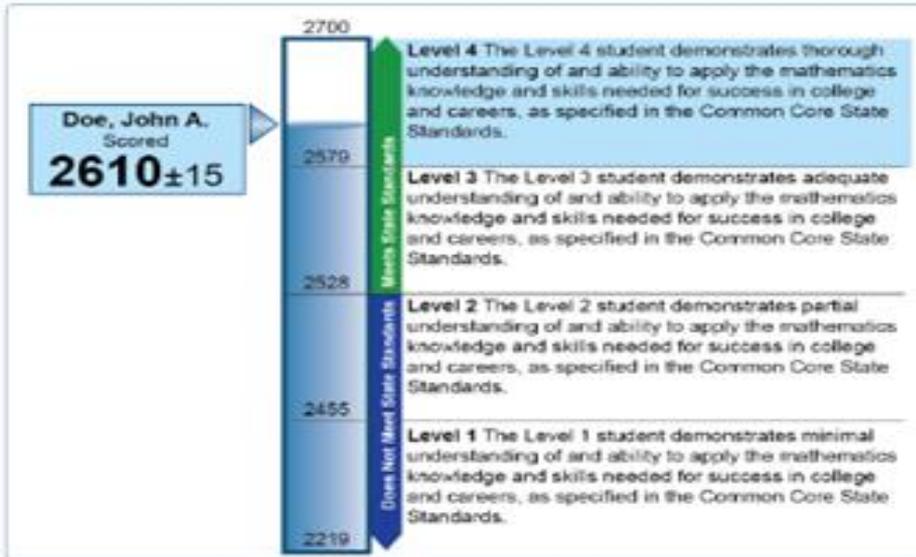
Name	Number of Students	Average Scale Score	Percent Proficient	Claims	Percentage in Each Claims Performance Level
Idaho	67	2510	67	<b>ELA/Literacy</b>	
				Reading	<span style="color: orange;">22</span> <span style="color: gray;">34</span> <span style="color: teal;">43</span>
				Listening and Speaking	<span style="color: orange;">16</span> <span style="color: gray;">67</span> <span style="color: teal;">16</span>
				Writing	<span style="color: orange;">12</span> <span style="color: gray;">52</span> <span style="color: teal;">36</span>
				Research/Inquiry	<span style="color: orange;">9</span> <span style="color: gray;">36</span> <span style="color: teal;">55</span>
Demo District 9999 (9999)	2	2522	50	<b>ELA/Literacy</b>	
				Reading	<span style="color: gray;">50</span> <span style="color: teal;">50</span>
				Listening and Speaking	<span style="color: orange;">50</span> <span style="color: gray;">50</span>
				Writing	<span style="color: gray;">50</span> <span style="color: teal;">50</span>
				Research/Inquiry	<span style="color: gray;">50</span> <span style="color: teal;">50</span>
Demo School 999901 (9999_999901)	2	2522	50	<b>ELA/Literacy</b>	
				Reading	<span style="color: gray;">50</span> <span style="color: teal;">50</span>
				Listening and Speaking	<span style="color: orange;">50</span> <span style="color: gray;">50</span>
				Writing	<span style="color: gray;">50</span> <span style="color: teal;">50</span>
				Research/Inquiry	<span style="color: gray;">50</span> <span style="color: teal;">50</span>

# Score Reporting: Individual Score Report

## Student Test Performance

Name	SSID	Scale Score	Achievement Level
Doe, John A.	056218172	2610 ±15	Level 4

## Scale Score and Overall Performance



## Comparison Scores

Name	Average Scale Score
State	2540 ±5
Demo District (001)	2535 ±5
Demo School (001-01)	2540 ±5

## Student Performance on Claims

Claim	Performance	Claims Description
Concepts & Procedures	✓	Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.
Problem Solving and Modeling & Data Analysis	✓	Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies. Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.
Communicating Reasoning	✓	Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.



# ORS Interim Assessment Blocks

## Number of Students Tested at Least One Block in Idaho, 2014-2015

### ELA/Literacy

Grade	Number of Students Tested at Least One Block
Grade 3	263
Grade 4	348
Grade 5	278
Grade 6	229
Grade 7	165
Grade 8	165
Grade 11	446

### Mathematics

Grade	Number of Students Tested at Least One Block
Grade 3	512
Grade 4	386
Grade 5	706
Grade 6	366
Grade 7	331
Grade 8	310
Grade 11	533



# ORS Interim Assessment Blocks

## Grade 5 Mathematics

		Mathematics		
Idaho	706	Numbers and Operations in Base 10	519	35 46 19
		Fractions	312	24 47 28
		Measurement and Data	68	24 54 22
		Mathematics Performance Task	1	100



# Score Reporting- Block Report

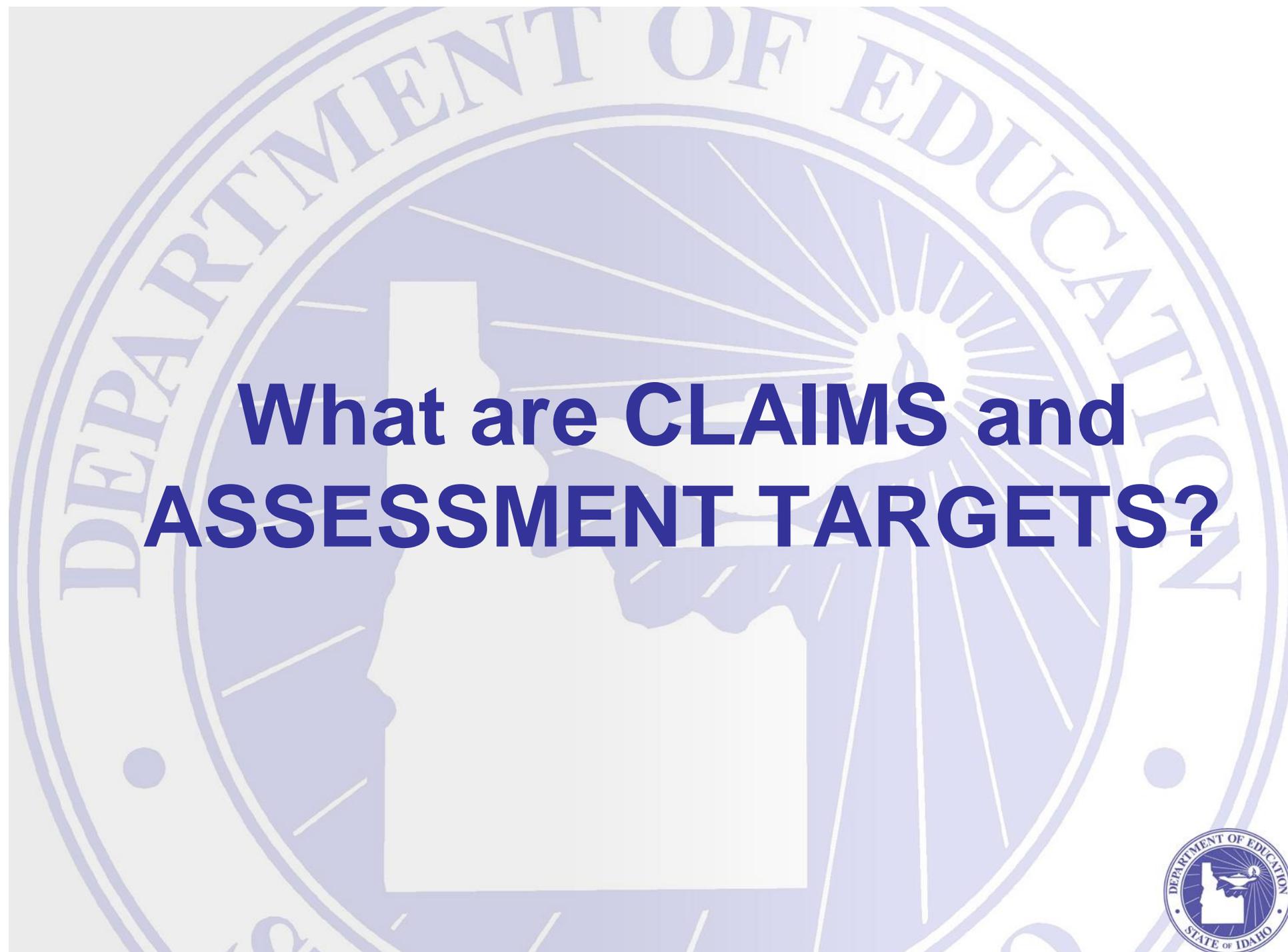
## Percentage in Each Block Performance Level

### Smarter Interim Assessment Blocks Mathematics Grade 5 Test for Students in Demo District

Breakdown By:  Test Event:   Comparison: ON

Name	Number of Students Tested at Least One Block	Blocks	Number of Students Tested	Percentage in Each Block Performance Level
State	225,500	<b>Mathematics</b>		
		Operations and Algebraic Thinking	200,000	14 16 70
		Numbers and Operations in Base 10	210,000	12 18 70
		Fractions	190,500	16 14 70
		Geometry	185,900	14 16 70
		Measurement and Data	178,800	12 18 70
		Mathematics Performance Task	190,700	16 14 70
Demo District (001)	5,585	<b>Mathematics</b>		
		Operations and Algebraic Thinking	5,000	8 24 68
		Numbers and Operations in Base 10	5,200	11 21 68
		Fractions	5,500	5 27 68
		Geometry	4,900	8 24 68
		Measurement and Data	4,800	11 21 68
		Mathematics Performance Task	4,700	5 27 68
Demo School 1 (001-01)	500	<b>Mathematics</b>		
		Operations and Algebraic Thinking	500	11 19 70
		Numbers and Operations in Base 10	460	10 20 70
		Fractions	450	12 18 70
		Geometry	490	11 19 70
		Measurement and Data	480	10 20 70
Mathematics Performance Task	300	12 18 70		





# **What are CLAIMS and ASSESSMENT TARGETS?**



# Conceptual Framework

## ***Claims***

broad statements of the assessment system's learning outcomes, each of which requires evidence

## ***Assessment Targets = Evidence***

Targets articulate the types of data/observations that will support interpretations of competence towards achievement of the claims.

***Interpretations*** are spelled out in the Achievement Level Descriptors.



# Conceptual Framework

We claim the following (Claim language) is true if we see the following evidence (Assessment Target language) at a certain level of proficiency (Achievement Level Descriptors.)



# The Test Reflects the Standards

- **Content Specifications** create a bridge between standards, assessment, and instruction
- **Item/Task Specifications** translate the Content Specs into actual items that provide evidence of learning

<http://www.smarterbalanced.org/smarter-balanced-assessments/>



# ELA/Literacy Claims

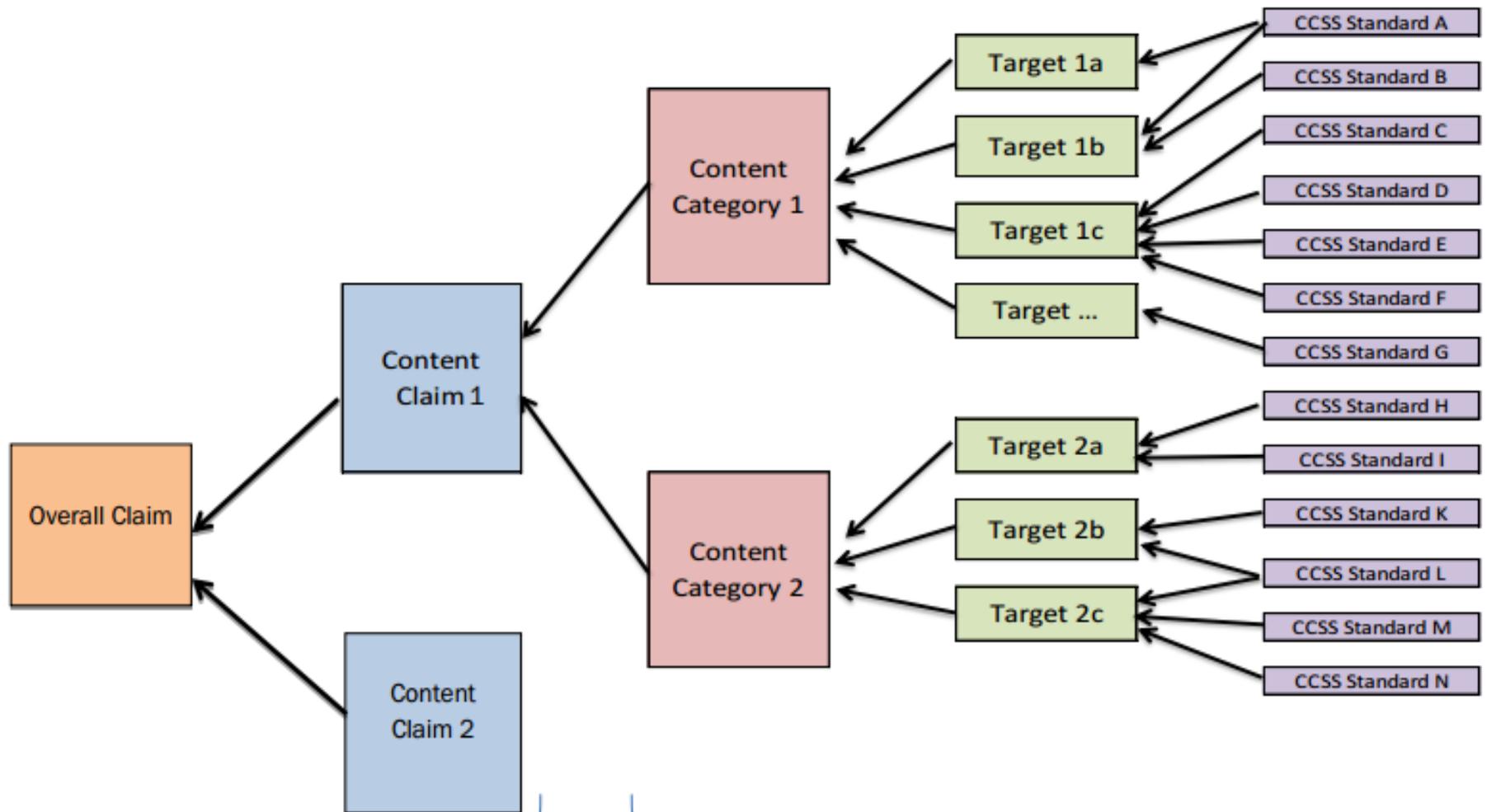
<b>Claim #1</b>	<b><u>Reading</u></b> “Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.”
<b>Claim #2</b>	<b><u>Writing</u></b> “Students can produce effective and well-grounded writing for a range of purposes and audiences.”
<b>Claim #3</b>	<b><u>Speaking and Listening</u></b> “Students can employ effective speaking and listening skills for a range of purposes and audiences.”
<b>Claim #4</b>	<b><u>Research / Inquiry</u></b> “Students can engage in research and inquiry to investigate topics, and to analyze, integrate, and present information.”

# Math Claims

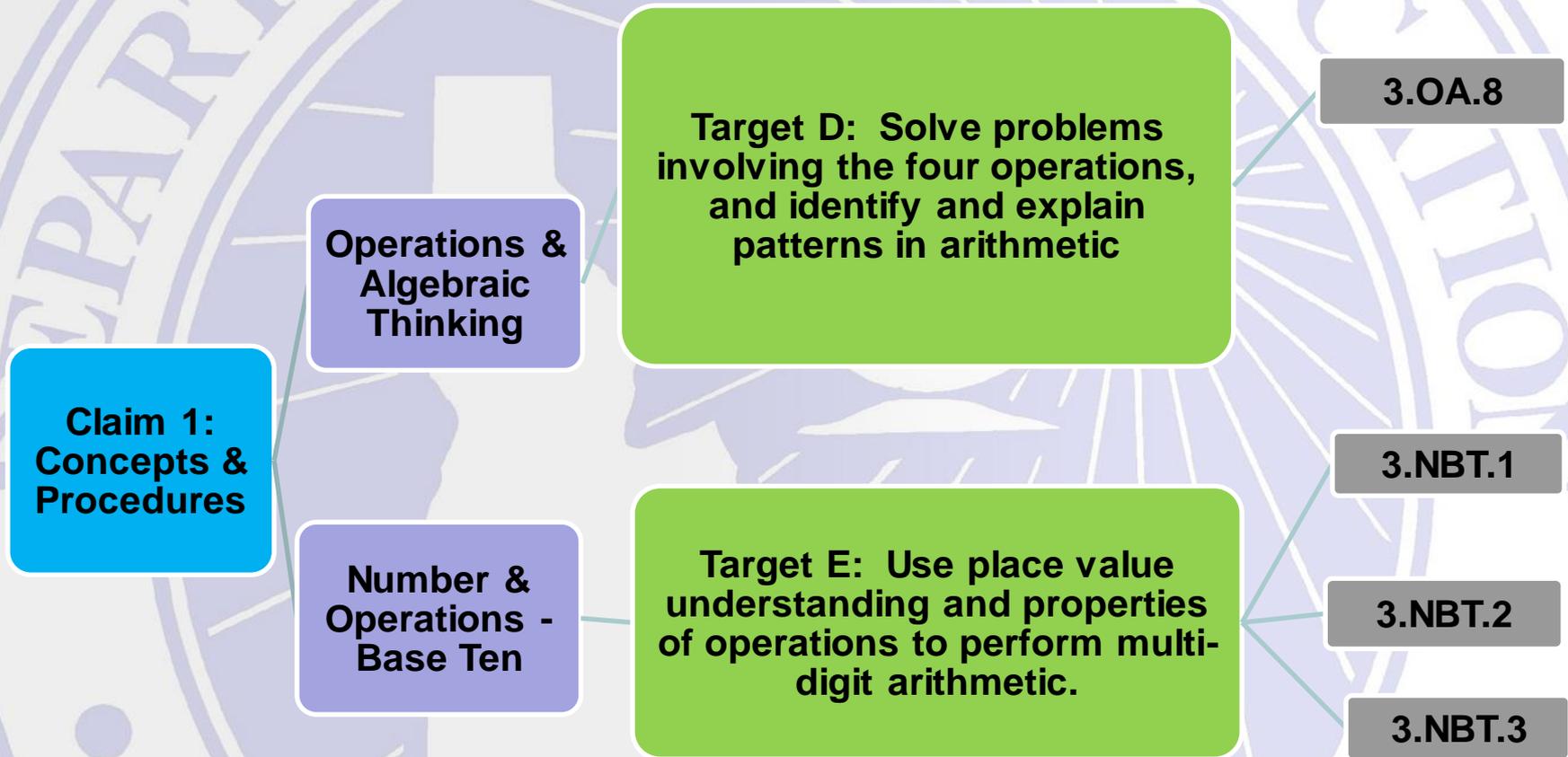
*Content Specifications, p. 25*

<b>Claim #1</b>	<b>Concepts &amp; Procedures</b> “Students can <b>explain and apply</b> mathematical <b>concepts</b> and <b>interpret and carry out</b> mathematical <b>procedures</b> with <b>precision</b> and <b>fluency</b> .”
<b>Claim #2</b>	<b>Problem Solving</b> “Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.”
<b>Claim #3</b>	<b>Communicating Reasoning</b> “Students can clearly and precisely <b>construct viable arguments</b> to <b>support</b> their own reasoning and to <b>critique</b> the reasoning of others.”
<b>Claim #4</b>	<b>Modeling and Data Analysis</b> “Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.”

# CLAIMS, Content Categories, Assessment Targets, and Standards



# CLAIM 1 – Grade 3: Content Categories, Assessment Targets, and Standards



# Relationship between the Core Standards & the Content Specifications

CCSS, p. 23

Content Specs, p. 30

**Operations and Algebraic Thinking** 3.OA

**Represent and solve problems involving multiplication and division.**

1. Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .
2. Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of groups of 8 objects when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
4. Determine the unknown whole number in a multiplication equation relating three whole numbers. For example, find the unknown number that makes the equation true in each situation:  $8 \times ? = 48$ ,  $5 = \square \div 3$ ,  $6 \times 6 = ?$ .

**Understand properties of multiplication and the relationship between multiplication and division.**

5. Apply properties of multiplication as follows:
  - a. Commutative property:  $8 \times 5 = 5 \times 8$ .
  - b. Associative property:  $(3 \times 5) \times 2 = 3 \times (5 \times 2)$ .
  - c. Distributive property:  $3 \times (4 + 5) = (3 \times 4) + (3 \times 5)$ .
6. Understand division as an unknown-factor problem. For example, solve  $32 \div 8 = ?$  by finding the number that multiplied by 8 gives 32.

**Multiply and divide within 100.**

7. Fluently multiply and divide within 100, using strategies based on the relationship between multiplication and division (e.g.,  $8 \times 5 = 40$ , so  $40 \div 8 = 5$ ); understand that dividing by 1 does not change a number and that any number multiplied by 0 equals 0.

**Solve problems involving the four operations, and explain patterns in arithmetic.**

8. Solve two-step word problems using the four operations, representing unknowns with letters, and drawing an equation, ray, or number line to represent the problem. For example, if a 5-page book costs \$28.00, how much does one page cost? (Hint:  $28 \div 5 = ?$ )
9. Identify arithmetic patterns (including multiplication tables), and explain them. For example, observe that 4 times a number is the same as multiplying the number by 2 twice.

**GRADE 3 Summative Assessment Targets**  
**Providing Evidence Supporting Claim #1**

**Claim #1: Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.**

Content for this claim may be drawn from any of the Grade 3 clusters represented below, with a much greater proportion drawn from clusters designated "m" (major) and the remainder drawn from clusters designated "a/s" (additional/supporting) – with these items fleshing out the major work of the grade. Sampling of Claim #1 assessment targets will be determined by balancing the content assessed with items and tasks for Claims #2, #3, and #4.<sup>3</sup> Grade level content emphases are summarized in Appendix A and CAT sampling proportions for Claim 1 are given in Appendix B.

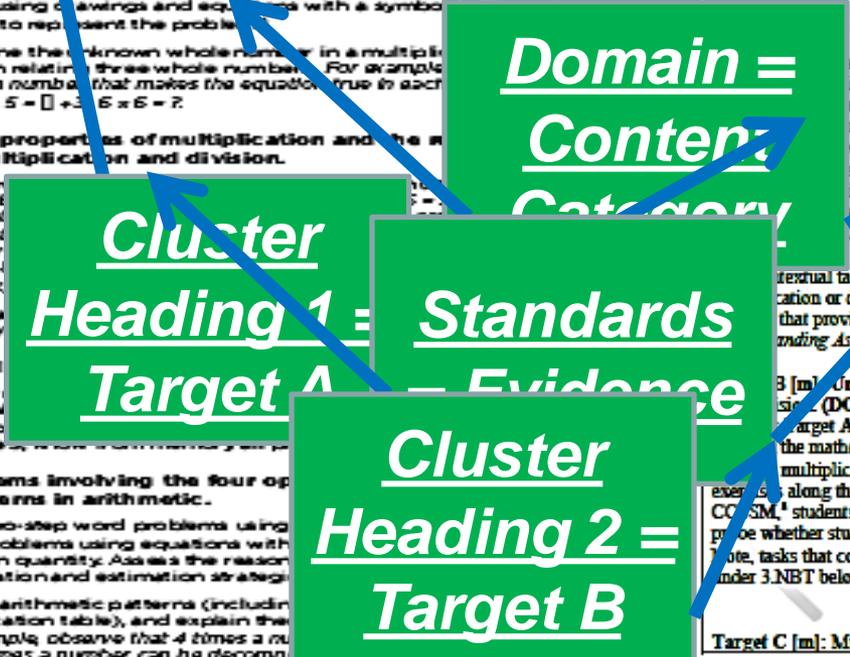
**Operations and Algebraic Thinking**

**3.OA.1** Represent and solve problems involving multiplication and division.<sup>4</sup> (DOK 1, 2) This target requires students to use multiplication and division within 100 to solve one-step contextual word problems in situations involving equal groups, arrays, and measurement quantities such as length, liquid volume, and masses/weights of objects. These problems may be in equal-groups or arrays-situation types, but can include more difficult measurement situations. All of these items/tasks will code straightforwardly to standard 3.OA.1. Few of these items/tasks will code to the method of solution a separate target of assessment. Other items/tasks for this target will probe student understanding of the meanings of multiplication and division.

**3.OA.2** Determine the unknown whole number in a multiplication or division equation relating three whole numbers (3.OA.2) will support the development of a range of difficulty necessary for populating an adaptive item bank (see section *Providing Evidence Supporting Claim #1 in an Adaptive Framework*, below, for further explication).

**3.OA.3** [m] Understand properties of multiplication and the relationship between multiplication and division. (DOK 1) Target A focuses more on the practical uses of multiplication and division, Target B focuses on the mathematical properties of these operations, including the mathematical relationship between multiplication and division. Tasks associated with this target are not intended to be vocabulary exercises along the lines of "which of these illustrates the distributive property?" As indicated by the CCSS-M, students need not know the formal names for the properties of operations. Instead, tasks are to probe whether students are able to use the properties to multiply and divide. Note, tasks that code directly to Target B will be limited to the 10x10 times table. (But see Target E under 3.NBT below.)

**3.OA.4** [m] Multiply and divide within 100. (DOK 1)



# ELA Content Specs

## Appendix B: Grade Level Tables for All Claims and Assessment Targets and Item Types

### Grades 3–5 Summative Assessment Targets, Claim #1

#### ELA/Literacy Claim #1

Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.

Grade 3

Grade 4

Grade 5

#### Literary Texts

50% of text-related assessment evidence will come from reading literary texts and may include stories, poems, plays, myths, or legends.

Underlined content (from related CC standards) shows what each assessment target could assess.

SUPPORTING EVIDENCE: Cite specific textual evidence to support conclusions drawn from the text(s).

**Standard: RL-1**

(RL-1 is a component of each of the seven targets listed below.)

**Target 1. KEY DETAILS:** Given an inference or conclusion, use explicit details and implicit information from the text to support the inference or conclusion provided.

**Gr. 3 Standards: RL-1**  
(DOK 1, DOK 2)

**RL-1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

**Target 1. KEY DETAILS:** Given an inference or conclusion, use explicit details and implicit information from the text to support the inference or conclusion provided.

**Gr. 4 Standards: RL-1**  
(DOK 1, DOK 2)

**RL-1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

**Target 1. KEY DETAILS:** Given an inference or conclusion, use explicit details and implicit information from the text to support the inference or conclusion provided.

**Gr. 5 Standards: RL-1**  
(DOK 1, DOK 2)

**RL-1** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

**Target 2. CENTRAL IDEAS:** Identify central ideas, key events, or the sequence of events presented in a text.

**Gr. 3 Standards: RL-2**  
(DOK 2, DOK 3)

**RL-2** Recount stories, including fables, folktales, and myths from diverse cultures; determine the

**Target 2. CENTRAL IDEAS:** Identify or summarize central ideas/key events.

**Gr. 4 Standards: RL-2**  
(DOK 2, DOK 3)

**RL-2** Determine a theme of a story, drama, or poem from details in the text; summarize the text.

**Target 2. CENTRAL IDEAS:** Identify or summarize central ideas/key events.

**Gr. 5 Standards: RL-2**  
(DOK 2, DOK 3)

**RL-2** Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama

# **Mathematics:**

**Assessment targets are standards  
cluster headings**

# **ELA/Literacy:**

**Assessment targets are anchor  
standards headings**



**How can this  
information be used to  
guide teaching and  
learning?**



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

1. Use Content Specifications to dig deeper into specific Claims and Targets
2. Use Item Specification to get specific details about tasks and questions
3. Use Core Standards documents
4. Use Digital Library to find resources in target areas



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

## ICA Claim Performance Level Grade 3 Example 1

### Mathematics

Concepts and Procedures

63

37

Problem Solving and Modeling & Data Analysis

100

Communicating Reasoning

16

84

Legend: Claims Performance Category

 %Below Standard  %At/Near standard  %Above standard



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards  
Content Specifications: Math begins p. 25**

## **GRADE 3 Summative Assessment Targets**

### **Providing Evidence Supporting Claim #1**

**Claim #1: Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.**

Content for this claim may be drawn from any of the Grade 3 clusters represented below, with a much greater proportion drawn from clusters designated “m” (major) and the remainder drawn from clusters designated “a/s” (additional/supporting) – with these items fleshing out the major work of the grade. Sampling of Claim #1 assessment targets will be determined by balancing the content assessed with items and tasks for Claims #2, #3, and #4.<sup>5</sup> Grade level content emphases are summarized in Appendix A and CAT sampling proportions for Claim 1 are given in Appendix B.

### Operations and Algebraic Thinking

**Target A [m]: Represent and solve problems involving multiplication and division.<sup>6</sup> (DOK 1)**  
Items/tasks for this target require students to use multiplication and division within 100 to solve straightforward, one-step contextual word problems in situations involving equal groups, arrays, and measurement quantities such as length, liquid volume, and masses/weights of objects. These problems should be of the equal-groups and arrays-situation types, but can include more difficult measurement quantity situations. All of these items/tasks will code straightforwardly to standard 3.OA.3. Few of these tasks coding to this standard will make the method of solution a separate target of assessment. Other tasks associated with this target will probe student understanding of the meanings of multiplication and division (3.OA.1,2).<sup>7</sup>

Non-contextual tasks that explicitly ask the student to determine the unknown number in a multiplication or division equation relating three whole numbers (3.OA.4) will support the development of items that provide a range of difficulty necessary for populating an adaptive item bank (see section *Understanding Assessment Targets in an Adaptive Framework*, below, for further explication).

**Target B [m]: Understand properties of multiplication and the relationship between multiplication and division. (DOK 1)**

Whereas Target A focuses more on the practical uses of multiplication and division, Target B focuses



# Implications for instruction

**GOAL: Elicit in the class**  
**Content Specs:**  
**Claim 1 Math Gr**



## Interim Assessment Structure and Understandings

There are 11 Assessment  
Targets contained in

- Operations and Algebraic Thinking
- Number and Operations in Base 10
- Number and Operations in Fractions
- Measurement and Data
- Geometry

### Mathematics Interim Assessment Blocks

Grade 3	Grade 4	Grade 5
Operations and Algebraic Thinking	Operations and Algebraic Thinking	Operations and Algebraic Thinking
Numbers and Operations in Base 10	Numbers and Operations in Base 10	Numbers and Operations in Base 10
Fractions	Fractions	Fractions
Measurement and Data	Geometry	Geometry
Mathematics Performance Task <sup>1</sup>	Measurement and Data	Measurement and Data
	Mathematics Performance Task <sup>1</sup>	Mathematics Performance Task <sup>1</sup>

# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

## ICA Claim Performance Level Grade 3

### ELA/Literacy

Reading

55

35

10

Listening and Speaking

50

45

5

Writing

70

30

Research/Inquiry

90

10

Legend: Claims Performance Category

 %Below Standard  %At/Near standard  %Above Standard



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

**Content Specifications: ELA begins p. 32**

Grade 3-5 Summative Assessment Targets, Claim #2		
ELA/Literacy Claim #2		
Students can produce effective writing for a range of purposes and audiences.		
Grade 3	Grade 4	Grade 5
35% of the assessment evidence will come from composing, revising, and/or editing narrative writing.		
35% of the assessment evidence will come from composing, revising, and/or editing explanatory/informational writing based on evidence from given sources.		
30% of the assessment evidence will come from composing, revising, and/or editing opinion writing based on evidence from given sources.		
Each year, students will be assessed using <u>at least</u> one extended performance task assessing one of the assessment targets: #2, #4, or #7. Other assessment targets may be assessed using a mix of CAT writing items or items as described and reported under Claim #4 (Research).		
<p><b>Target 1a. WRITE BRIEF TEXTS:</b> Write one or more paragraphs demonstrating specific narrative techniques (use of dialogue, description), chronology, appropriate transitional strategies for coherence, or authors' craft appropriate to purpose (closure, detailing characters, plot, setting, or an event). <b>Gr. 3 Standards: W-3a, W-3b, W-3c, W-3d</b> (DOK 3)</p> <p><b>Target 1b REVISE BRIEF TEXTS:</b> Revise one or more paragraphs demonstrating specific narrative techniques (use of dialogue, description), chronology, appropriate transitional strategies for coherence, or authors' craft appropriate to purpose (closure, detailing characters, plot, setting, or an event). <b>Gr. 3 Standards: W-3a, W-3b, W-3c, W-3d</b> (DOK 2)</p> <p><b>W-3</b></p> <p>a. <u>Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</u></p> <p>b. <u>Use dialogue and descriptions of actions, thoughts, and feelings to</u></p>	<p><b>Target 1a. WRITE BRIEF TEXTS:</b> Write one or more paragraphs demonstrating specific narrative techniques (use of dialogue, sensory or concrete details, description), chronology, appropriate transitional strategies for coherence, or authors' craft appropriate to purpose (closure, detailing characters, plot, setting, or an event). <b>Gr. 4 Standards: W-3a, W-3b, W-3c, W-3d, and/or W-3e, W-9</b> (DOK 3)</p> <p><b>Target 1b. REVISE BRIEF TEXTS:</b> Revise one or more paragraphs demonstrating specific narrative techniques (use of dialogue, sensory or concrete details, description), chronology, appropriate transitional strategies for coherence, or authors' craft appropriate to purpose (closure, detailing characters, plot, setting, or an event). <b>Gr. 4 Standards: W-3a, W-3b, W-3c, W-3d, and/or W-3e</b> (DOK 2)</p> <p><b>W-3</b></p> <p>a. <u>Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that</u></p>	<p><b>Target 1a. WRITE BRIEF TEXTS:</b> Write one or more paragraphs demonstrating specific narrative techniques (use of dialogue, sensory or concrete details, description), chronology, appropriate transitional strategies for coherence, or authors' craft appropriate to purpose (closure, detailing characters, plot, setting, or an event). <b>Gr. 5 Standards: W-3a, W-3b, W-3c, W-3d, and/or W-3e, W-9</b> (DOK 3)</p> <p><b>Target 1b. REVISE BRIEF TEXTS:</b> Revise one or more paragraphs demonstrating specific narrative techniques (use of dialogue, sensory or concrete details, description), chronology, appropriate transitional strategies for coherence, or authors' craft appropriate to purpose (closure, detailing characters, plot, setting, or an event). <b>Gr. 5 Standards: W-3a, W-3b, W-3c, W-3d, and/or W-3e, L-3a</b> (DOK 2)</p> <p><b>W-3</b></p> <p>a. <u>Orient the reader by establishing a situation and introducing a narrator and/or characters;</u></p>

## Class Performance on Each Target for the Mathematics Test

What are my class's relative strengths and weaknesses in the Mathematics targets?

Test: Smarter Summative Mathematics Grade 5

Year: 2014-2015

Name: Demo Class A

### Legend: Strength and Weakness Indicator

- + Better than performance on the test as a whole
- = Similar to performance on the test as a whole
- Worse than performance on the test as a whole
- \* Insufficient Information

### Performance on Each Target

#### Smarter Summative Mathematics Grade 5 Test for Students in Demo Class A

Target	Performance
<b>Concepts &amp; Procedures</b>	
Understand the place-value system.	+
Perform operations with multi-digit whole numbers and with decimals to hundredths.	+
Use equivalent fractions as a strategy to add and subtract fractions.	=
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	-
Geometric measurement: understand concepts of volume and relate volume to multiplication and addition.	-
Write and interpret numerical expressions.	=
Analyze patterns and relationships.	+
Convert like measurement units within a given measurement system.	-
Represent and interpret data.	+
Graph points on the coordinate plane to solve real-world and mathematical problems.	=
Classify two-dimensional figures into categories based on their properties.	-
<b>Problem Solving and Modeling Data &amp; Analysis</b>	
Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	+
Select and use appropriate tools strategically.	=
Interpret results in the context of a situation.	-

### Comparison Scores

Name	Average Scale Score
State	2540 ±5
Demo District (001)	2535 ±5
Demo School (001-01)	2540 ±5
Demo Teacher	2450 ±5
Demo Class A	2550 ±5

# Score Reporting Targets

## Grade 5 Summative Target Report

### Example 3



# Score Reporting

## Content Specs document

### Geometry

**Target J [a/s]: Graph points on the coordinate plane to solve real-world and mathematical problems. (DOK 1)**

Tasks for this target ask students to plot coordinate pairs in the first quadrant. Some of these tasks will be created by pairing this target with 5.OA Target B, which would raise the DOK level.

**Target K [a/s]: Classify two-dimensional figures into categories based on their properties. (DOK 2)**

Tasks for this target ask students to classify two-dimensional figures based on a hierarchy. Technology-enhanced items may be used to construct a hierarchy, or tasks may ask the student to select all classifications that apply to a figure based on given information.

## CCSS Document

**Classify two-dimensional figures into categories based on their properties.**

CCSS.MATH.CONTENT.5.G.B.3

Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.

CCSS.MATH.CONTENT.5.G.B.4

Classify two-dimensional figures in a hierarchy based on properties.



# Digital Library [sso.smarterbalanced.org](http://sso.smarterbalanced.org)

Digital Library Resources

Resource Review

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Reports



## Filters

Subjects



Resource Type



Module Type

Grades



Intended End Users



Geographic Settings

Attributes of the Formative Assessment Process



Intended Student Populations



Common Core State Standards

Media Types



Educational Use



## Applied Filters

✕ Clear All

### RESOURCE TYPE

Instructional Resource



1896 Resources:

Sort by: Highest Rated



Posted with Distinction Only

☰ List View

✓ Posted with Distinction

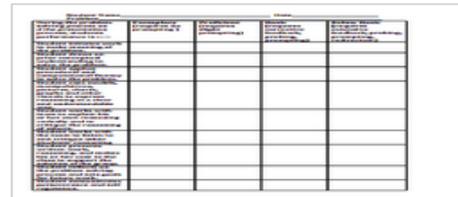
Hide ⤴

### Performance Task: Explanatory Essay: Greek Mythology in Today's World



This resource is a Performance Task on its face. Students can use it as is in order to prepare for the SBAC performance task they will be

### Open Ended Problems that Link Concept and Procedure



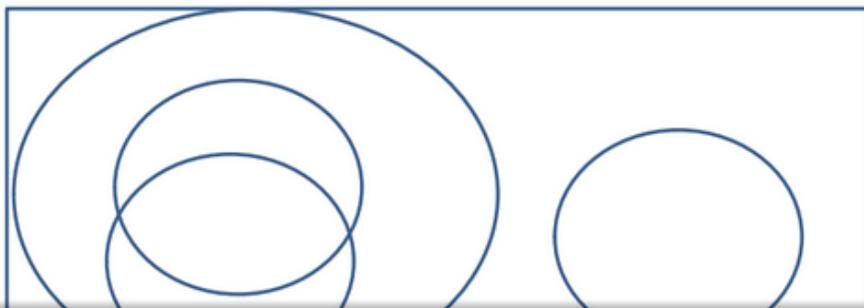
This resource covers all domains of K-5, but it could be used in older grades successfully. Students work in small groups of 2-4 with the

Author: [cdellinger@chester.k12.sc.us](mailto:cdellinger@chester.k12.sc.us) | Owner: [cdellinger@chester.k12.sc.us](mailto:cdellinger@chester.k12.sc.us)Contributor: [Candice Dellinger](#)

Name \_\_\_\_\_ Date \_\_\_\_\_

## 5.G.B Classifying Two-Dimensional Figures

**Day 1:** Create a Venn Diagram to include the following: quadrilaterals, squares, rectangles, parallelograms, trapezoids, and rhombuses.

[View All Materials](#)

Properties of quadrilaterals 2.docx

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## SUBJECTS AND DOMAINS

Math - Geometry - Content

## COMMON CORE STATE STANDARDS

CCSS.Math.Content.5.G.B

CCSS.Math.Content.5.G.B.3

CCSS.Math.Content.5.G.B.4

## GRADES

5 - Fifth Grade

## Summary

This resource is to be used over a period of 4 class periods. There are 4 different activities that require students to define and classify two-dimensional figures based on their properties, structures, and relationships. Students are also required to defend their reasoning. Although the activities are numbered, the teacher can use the activities in any order, allowing for flexibility and instructional decision-making as needed. An answer key is included.

## ATTRIBUTES OF THE FORMATIVE ASSESSMENT PROCESS

[Clarify Intended Learning](#)[Elicit Evidence](#)[Interpret Evidence](#)[Act on Evidence](#)

# Digital Library

## 5<sup>th</sup> Grade Math

### 5.G.B

## Instructional Resource



# Digital Library

The Formative Assessment Process in classrooms

[Video describing FA](#)

<https://www.youtube.com/watch?v=ccr8eT2Q98A&feature=youtu.be>

[Digital Library Log On](#)

<https://sso.smarterbalanced.org/auth/UI/Login>

[ART](#)

[art.smarterbalanced.org](http://art.smarterbalanced.org)



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

## IAB Percentage Performance Level Grade 7 Example 4

### Mathematics

Expressions and Equations

Ratio and Proportional Relationships

110



Number System

10



Mathematics Performance Task

Legend: Claims Performance Category

%Below Standard %At/Near standard %Above standard



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards  
Content Specifications: Math begins p. 25**

## The Number System (7.NS)

**Target B [m]: Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. (DOK 1, 2)**

Tasks for this target will require students to add and subtract rational numbers, including problems that connect these operations to distance between numbers on a number line and the concept of absolute value as it relates to distance on a number line. Other tasks will ask students to multiply and divide rational numbers and convert rational numbers to decimals.

Tasks for Claim 3 related to this target will incorporate student understanding of zero as a divisor, quotients of integers being rational, and termination in 0s or repeating for decimal representation of rational numbers.

Tasks for Claims 2 and 4 related to this target will integrate operations with rational numbers.



# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

**Item Specifications Document – 7<sup>th</sup> Grade, The Number System**

## Grade 7 Mathematics Item Specification C1 TB

### Claim 1: Concepts and Procedures

Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

### Content Domain: The Number System

**Target B [m]:** Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. (DOK Levels 1, 2)

Tasks for this target will require students to add and subtract rational numbers, including problems that connect these operations to distance between numbers on a number line, and the concept of absolute value as it relates to distance on a number line. Other tasks will ask students to multiply and divide rational numbers and convert rational numbers to decimals.

Standards:

7.NS.A, 7.NS.1,  
7.NS.2, 7.NS.3

**7.NS.A Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**

**7.NS.1** Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

- Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*
- Understand  $p + q$  as the number located a distance  $|q|$  from  $p$ , in the positive or negative direction depending on whether  $q$  is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- Understand subtraction of rational numbers as adding the additive inverse,  $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- Apply properties of operations as strategies to add and subtract rational numbers.

**7.NS.2** Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

- Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as  $(-1)(-1) = 1$  and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
- Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with a

# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

**Item Specifications Document – 7<sup>th</sup> Grade, The Number System**

## Task Model 1

**Response Type:**  
**Graphing**

**DOK Level 2**

### 7.NS.1b

Understand  $p + q$  as the number located a distance  $|q|$  from  $p$ , in the positive or negative direction depending on whether  $q$  is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

### Evidence Required:

1. The student interprets rational number values on a number line,

**Prompt Features:** The student is prompted to construct a model on the number line that corresponds to given information.

**Stimulus Guidelines:** Item difficulty can be adjusted via these methods:

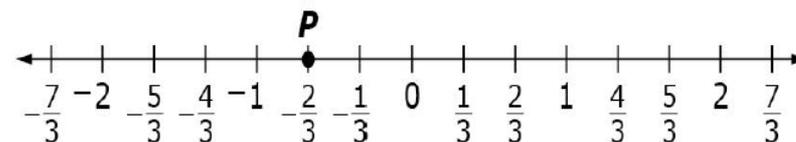
- Mathematical operations involving addition and subtraction are easier when the terms are positive.
- Terms consisting of integers are easier than terms which include rational numbers such as decimals, fractions or mixed numbers.
- A number line containing whole number scaling is easier than one containing rational number scaling.

### TM1a

**Stimulus:** The student is presented with a scaled number line including a labeled point at a rational number.

**Example Stem:** What numbers are located exactly  $\frac{5}{3}$  units from point  $P$  on the number line?

Use the Add Point tool to plot the location of these numbers on the number line.



**Interaction:** Add Point and Delete tools should be provided for students to plot points on the number line containing snap-to

# Implications for instruction

**GOAL: Elicit in the classroom, the same evidence called for in the standards**

**Digital Library  
The Number System  
Mathematical Practice  
Standard 4  
Grade 7**

## Distance Between Houses: Understanding And Applying Absolute Value

INSTRUCTIONAL RESOURCE

♥ Add to Favorites

Author: [Louisiana Department of Education](#) | Owner: [Louisiana Department of Education](#)

Contributor: [Smarter Balanced](#)

### Overview

Students will represent the locations of the houses of friends relative to the school on a number line and use that information to help find the distances between the friends' houses.

### Standards

**Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**

**7.NS.A.1** Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

- Understand subtraction of rational numbers as adding the additive inverse,  $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

**7.NS.A.3** Solve real-world and mathematical problems involving the four operations with rational numbers.

### Prior to the Task

**Standards Preparation:** The material in the chart below illustrates the standards and sample tasks that are prerequisite for student success with this task's standards.

[View All Materials](#)

744\_grade\_7\_eor\_distance\_between\_houses.pdf

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### SUBJECTS AND DOMAINS

Math - Practice - 4. Model with mathematics

Math - The Number System - Content

### COMMON CORE STATE STANDARDS

CCSS.Math.Content.7.NS.A.1c

CCSS.Math.Content.7.NS.A.3

### Summary

Aligned to Grade 7 standards in the number system domain that require an ECR, the task asks students to represent locations of friends' houses relative to school on a number line and use that information to find the distances between the friends' houses. Additional tasks help determine student readiness for the grade-level task. The resource identifies standards from previous and current grade levels necessary for student success, and includes links to sample remediation items. Common misunderstandings are highlighted, task extensions are suggested, and an included exemplar

# Additional Information



# Testing Options

- Training Tests
  - For TA to become familiar with administering the assessment
  - Supported web browser for TA Interface or Training site
- Practice Tests
  - For students
  - Practice Online testing and using test tools
  - Use supported or secure browser
- Interim Assessments
  - Generate data: for students and teachers, parents; identify strengths and limitations; progression toward meeting standards
  - Students take with secure browser; TA supported browser
- Summative Assessments
  - For students, teachers to identify mastery of the standards\
  - For state accountability
  - Students take with secure browser; TA supported browser



# ISAT Portal

- All documents:
  - User Guides & Manuals
  - Classroom activities, Rubrics, Scoring Guides
  - Training Modules
- Access to Systems:
  - TIDE: Test Information Distribution Engine
  - TDS: Test Delivery System
  - THSS: Teacher Hand Scoring System
  - **ORS: Online Reporting System**
- Announcements, alerts, schedules, FAQs and the Idaho Help Desk [IDHelpDesk@air.org](mailto:IDHelpDesk@air.org) 1-844-560-7365



# [Idaho.portal.airast.org](http://Idaho.portal.airast.org)

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Families**



**Teachers & Test  
Administrators**



**Test  
Coordinators**



**Technology  
Coordinators**



## Recent Announcements

**NOTE:** The Interim Assessment Blocks (IABs) are now available in the Test Delivery System (TDS) and Online Reporting System (ORS). The Test Administrator (TA) site and ORS can be accessed via the Teachers & Test Administrators and Test Coordinators user pages.

*Added January 27, 2015*

- The Practice and Training tests and ICAs will be down on January 23–26 for the release of the IABs. TDS and ORS will be offline at this time. All systems will be back up on January 27.

*Added January 21, 2015*

- The Teacher Hand Scoring System (THSS) is live and accessible on the portal! The THSS icon can be found under the Teachers & Test Administrators or Test Coordinators pages. You may access the THSS user guide located in the Teachers & Test Administrators and Test Coordinators resources page for any questions related to this system.

*Added January 20, 2015*

- TIDE has now been loaded with student information. Additional students can be loaded by district-level users. Please refer to the TIDE user guide regarding student load. The TIDE user guide can be accessed via the Teacher/Test Administrator and Test Coordinator user pages. Please contact the help desk if questions arise.

*Added January 7, 2015*

- The Interim Comprehensive Assessments (ICAs) are now available for using the Test Delivery System (TDS). The Test Administrator (TA) site can be accessed via the Teacher/Test Administrator and Test Coordinator user pages.

*Added January 6, 2015*

- Please [click here](#) to view all announcements



[Top FAQs](#)

## Welcome!

This site demonstrates the features that are available on the portals created by AIR to access the assessment systems.

## Teacher Scoring Application

Teachers may now apply to assist with scoring Summative Assessments. Teachers who have had experience hand scoring interim assessment items should indicate this on their application. To access the application please visit [Measurement Incorporated Scoring Application](#) and select the Teachers Only – Work from Home category.



**Secure Browsers**



**Practice & Training  
Tests**



**Important Dates**



**Contact Us**



**Idaho Statewide  
Assessment Group  
on Edmodo**



**Digital Library by  
Smarter Balanced**



Content and Item Specifications Documents can be found via this link.

<http://www.smarterbalanced.org/smarter-balanced-assessments/>

The Digital Library can be accessed at [sso.smarterbalanced.org](http://sso.smarterbalanced.org)



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