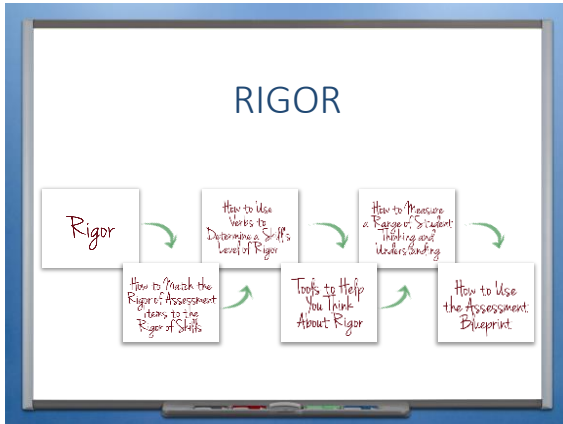


# Rigor



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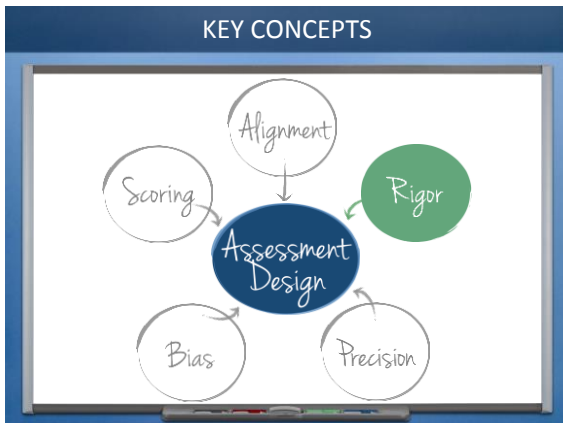
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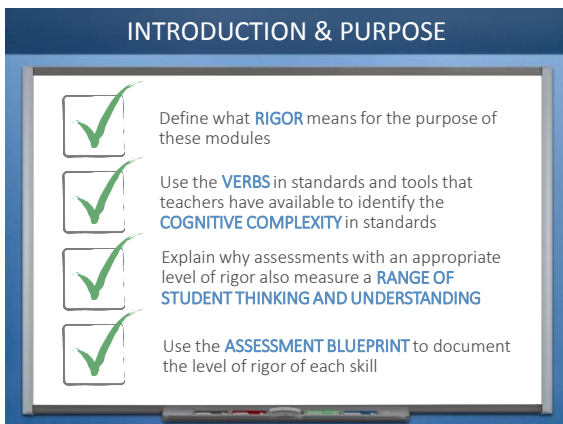
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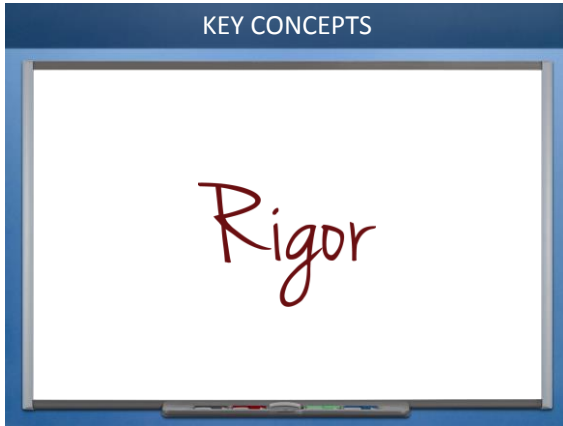
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# Rigor



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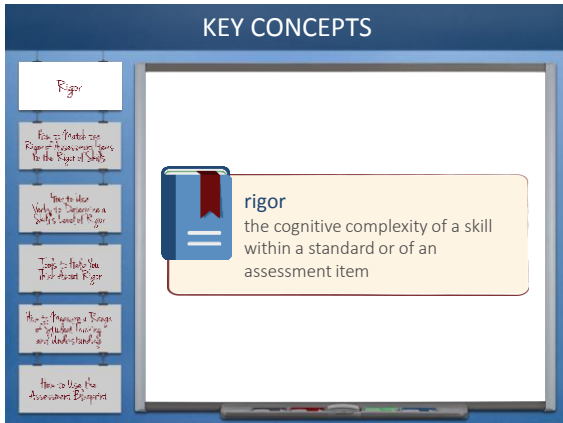
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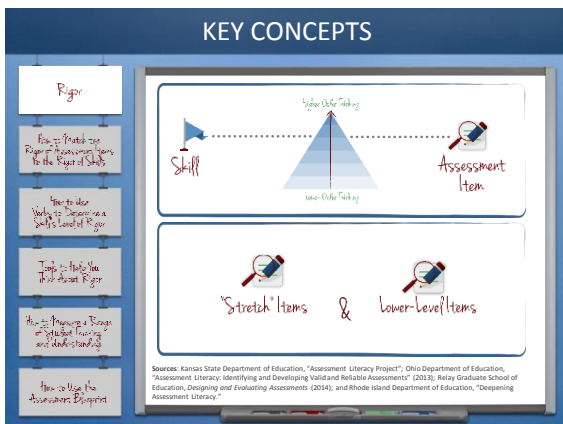
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# Rigor

## KEY CONCEPTS

How to Match the  
Rigor of Assessment  
Items to the  
Rigor of Skills

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## KEY CONCEPTS

### Rigor

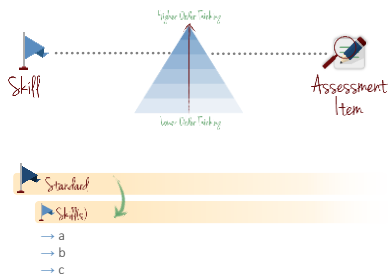
How to Match the  
Rigor of Assessment Items  
to the Rigor of Skills

How to Use  
Writing to Demonstrate a  
Student's Level of Rigor

How to Match the  
Rigor of Assessment Items  
to the Rigor of Skills

How to Prepare a Range  
of Instructional Tasks and  
Assessments

How to Use the  
Assessment Blueprint




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## KEY CONCEPTS

### Rigor

How to Match the  
Rigor of Assessment Items  
to the Rigor of Skills

How to Use  
Writing to Demonstrate a  
Student's Level of Rigor

How to Match the  
Rigor of Assessment Items  
to the Rigor of Skills

How to Prepare a Range  
of Instructional Tasks and  
Assessments

How to Use the  
Assessment Blueprint

### Standard

Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share 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  $56 \div 8$ .

Source: Tennessee Department of Education, "Tennessee's State Mathematics Standards: Grade 3" (2018).

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## KEY CONCEPTS

**Rigor**

How to Pencil the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

**Standard**

Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share 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  $56 \div 8$ .

**Skill(s)**

→ Interpret whole-number quotients of whole numbers.

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## KEY CONCEPTS

**Rigor**

How to Pencil the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

**Standards**

**Classroom Assessments**

**Skill(s)**

→ Interpret whole-number quotients of whole numbers.

**Assessment Item**

What is  $12 \div 3$ ?

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## KEY CONCEPTS

**Rigor**

How to Pencil the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

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How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

How to Use the Rigor of Assessment Items to the Rigor of Standards

**Standard**

**Skill**

**Higher Order Thinking**

**Lower Order Thinking**

**Assessment Item**

**Skill(s)**

→ Interpret whole-number quotients of whole numbers.

**Assessment Item**

What is  $12 \div 3$ ?

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## KEY CONCEPTS

**Rigor**

How to Practice the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

**Standard**

Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share 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  $56 \div 8$ .

**Assessment Item**

What is  $12 \div 3$ ?

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## KEY CONCEPTS

**Rigor**

How to Practice the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills


**Standard**

Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share 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  $56 \div 8$ .

**Assessment Item**

Suppose there are 4 tanks and 3 fish in each tank. The total number of fish in this situation can be expressed as  $4 \times 3 = 12$ .

- Describe what is meant in this situation by  $12 \div 3 = 4$
- Describe what is meant in this situation by  $12 \div 4 = 3$



Source: "Fish Tanks," Illustrative Mathematics

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## KEY CONCEPTS

**Rigor**

How to Practice the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills


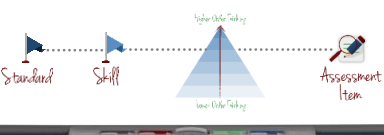
How to Use the Rigor of Reasoning Items to the Rigor of Skills

How to Use the Rigor of Reasoning Items to the Rigor of Skills

**Assessment Item**

Suppose there are 4 tanks and 3 fish in each tank. The total number of fish in this situation can be expressed as  $4 \times 3 = 12$ .

- Describe what is meant in this situation by  $12 \div 3 = 4$
- Describe what is meant in this situation by  $12 \div 4 = 3$

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# Rigor

## KEY CONCEPTS

How to Use  
Verbs to  
Determine a Skill's  
Level of Rigor

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## KEY CONCEPTS

Rigor

How to Practice the  
Rigor of Answering Items  
To the Rigor of Skills

How to Use  
Verbs to Determine a  
Skill's Level of Rigor

How to Apply the  
Rigor of Answering Items

How to Practice a Range  
of Skillful Thinking  
and Understanding

How to Use the  
Assessment Blueprint

Standard

Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share 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  $56 \div 8$ .

~~"Division  
Standard"~~

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## KEY CONCEPTS

Rigor

How to Practice the  
Rigor of Answering Items  
To the Rigor of Skills

How to Use  
Verbs to Determine a  
Skill's Level of Rigor

How to Apply the  
Rigor of Answering Items

How to Practice a Range  
of Skillful Thinking  
and Understanding

How to Use the  
Assessment Blueprint

Standard

Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share 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  $56 \div 8$ .

~~"Division  
Standard"~~

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# Rigor

**KEY CONCEPTS**

**Rigor**

- How to Praise the Rigor of Answer Items to the Rigor of Shifts
- How to Use Words to Describe a Shift's Level of Rigor
- How to Use the Rigor of Answer Items to the Rigor of Shifts
- How to Use the Rigor of Answer Items to the Rigor of Shifts
- How to Use the Rigor of Answer Items to the Rigor of Shifts
- How to Use the Rigor of Answer Items to the Rigor of Shifts

**Standard**

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Source: New York State Department of Education, "New York State P-12 Common Core Learning Standards for English Language Arts & Literacy" (2010).

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**KEY CONCEPTS**

**Rigor**

- How to Praise the Rigor of Answer Items to the Rigor of Shifts
- How to Use Words to Describe a Shift's Level of Rigor
- How to Use the Rigor of Answer Items to the Rigor of Shifts
- How to Use the Rigor of Answer Items to the Rigor of Shifts
- How to Use the Rigor of Answer Items to the Rigor of Shifts
- How to Use the Rigor of Answer Items to the Rigor of Shifts

**Standard**

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

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**KEY CONCEPTS**

**Rigor**

- How to Praise the Rigor of Answer Items to the Rigor of Shifts
- How to Use Words to Describe a Shift's Level of Rigor
- How to Use the Rigor of Answer Items to the Rigor of Shifts
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**Standard**

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

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# Rigor

Rigor

How to Practice the Rigor of Assessment Items to the Rigor of Standards

How to Use Words to Determine a Student's Level of Rigor


How to Apply the Rigor of Assessment Items

How to Practice a Range of Student Learning and Understanding

How to Use the Assessment Blueprint

Standard

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.



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Rigor

How to Practice the Rigor of Assessment Items to the Rigor of Standards

How to Use Words to Determine a Student's Level of Rigor

How to Apply the Rigor of Assessment Items

How to Practice a Range of Student Learning and Understanding

How to Use the Assessment Blueprint


Standard

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Assessment Item

Which of the following words is an antonym of "tense"?

- a. troubled
- b. calm
- c. concerned
- d. smooth



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Rigor

How to Practice the Rigor of Assessment Items to the Rigor of Standards

How to Use Words to Determine a Student's Level of Rigor

How to Apply the Rigor of Assessment Items

How to Practice a Range of Student Learning and Understanding

How to Use the Assessment Blueprint

Standard

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Assessment Item

Which of the following words is an antonym of "tense"?

- a. troubled
- b. calm
- c. concerned
- d. smooth

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# Rigor

### KEY CONCEPTS

Rigor

How to Practice the Rigor of Assessment Items to the Rigor of Standards

How to Use Words to Describe a Student's Level of Rigor

Tools to Help the Student Assess Rigor

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

#### Assessment Item

Read the passage below. Then answer the question.

Last year my family went to a national park for our vacation. We saw wild animals that we had seen only in books, and we were amazed by the landscape of trees and rivers. The highlight of the trip was an **arduous** hike we took to the top of a small mountain. Though the hike was not easy, due to all the loose rocks and exposed roots on the path, the spectacular view from the top was worth it!

What does the word "arduous" mean in this passage?

Source: "Part 6 Language, 6.3 Vocabulary Acquisition and Use: Antonyms," The McGraw-Hill Companies.

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### KEY CONCEPTS

Rigor

How to Practice the Rigor of Assessment Items to the Rigor of Standards

How to Use Words to Describe a Student's Level of Rigor

Tools to Help the Student Assess Rigor

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

#### Standard

Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

#### Assessment Item

Read the passage below. Then answer the question.

Last year my family went to a national park for our vacation. We saw wild animals that we had seen only in books, and we were amazed by the landscape of trees and rivers. The highlight of the trip was an **arduous** hike we took to the top of a small mountain. Though the hike was not easy, due to all the loose rocks and exposed roots on the path, the spectacular view from the top was worth it!

What does the word "arduous" mean in this passage?

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### KEY CONCEPTS

# Tools to Help You Think About Rigor

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## Rigor

**KEY CONCEPTS**

**Level One (Recall)**

- Draw
- Identify
- List
- Memorize
- Define
- Illustrate

**Level Two (Skill/Concept)**

- Arrange
- Calculate
- Match
- Measure
- Organize
- Recall
- Recognize
- Reprint
- Tabulate
- Use

**Level Three (Strategic Thinking)**

- Connect
- Design
- Explain
- Infer
- Interpret
- Modify
- Predict

**Level Four (Extended Thinking)**

- Analyze
- Assess
- Construct
- Critique
- Compare
- Develop a Logical Argument

**Source:** Mississippi Department of Education, Webb's Depth of Knowledge Guide: Career and Technical Education Definitions (2009).

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# KEY CONCEPTS

**Rigor**

How to Practice Rigor in Learning Goals for the Rigor of Skills

How to Use York to Develop a Student's Level of Rigor

How to Apply the York Model of Rigor

How to Practice a Range of Intellectual Function and Problem Solving

How to Use the Assessment Blueprint

Higher-Order Thinking

6. Creating
5. Evaluating
4. Analyzing
3. Applying
2. Understanding
1. Remembering

Lower-Order Thinking

Source: Moody, Michael, and Jason Strick, *Strategic design for Student Achievement* (2008).

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# KEY CONCEPTS

**Rigor**

How to Match the Rigor of Learning Goals to the Rigor of Skills

How to Use the Rigor of Learning Goals as a Guide to the Rigor of Skills

How to Use the Rigor of Learning Goals as a Guide to the Rigor of Skills

How to Use the Rigor of Learning Goals as a Guide to the Rigor of Skills

How to Use the Rigor of Learning Goals as a Guide to the Rigor of Skills

Higher-Order Thinking

1. Remembering
2. Understanding
3. Applying
4. Analyzing
5. Evaluating
6. Creating

Lower-Order Thinking

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## Rigor

# Verbs According to Bloom's Taxonomy

Lower-Order Thinking → Higher-Order Thinking

1. Remember	2. Understand	3. Apply	4. Distinguish	5. Evaluate	6. Create
Remember Information	Explain Ideas or Concepts	Use Information in a New Way	Distinguish Between Parts	Justify a Position or Decision	Create a New Product or Point of View
Choose Define Find Identify Estimate List Match Name Recognize Recall Select Tabulate	Classify Build Describe Estimate Explain Illustrate Graph Interpret Measure Outline Report Summarize	Apply Build Calculate Construct Demonstrate Develop Graph Model Organize Practice Solve Use Simplify	Analyze Attribute Break down Categorize Determine the relationship Deduct Differentiate Examine Organize Separate Support	Argue Assess Conclude Create Develop Decide Deduct Defend Judge Predict Prioritize Support	Adapt Build Combine Design Create Generate Integrate Modify Plan Produce Theorize Validate

Source: Moody, Michael, and Jason Strick, *Strategic Design for Student Achievement* (2008).

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## KEY CONCEPTS

**Rigor**

*Rigor is the level of difficulty or challenge that is required to achieve a goal.*

*Rigor is the level of difficulty or challenge that is required to achieve a goal.*

*Rigor is the level of difficulty or challenge that is required to achieve a goal.*

**Assessment Item**

Which of the following words is an antonym of "tense"?

- troubled
- calm
- concerned
- smooth

Read the passage below. Then answer the question.

Last year my family went to a national park for our vacation. We saw wild animals that we had seen only in books, and we were amazed by the landscape of trees and rivers. The highlight of the trip was an **arduous** hike we took to the top of a small mountain. Though the hike was not easy, due to all the loose rocks and exposed roots on the path, the spectacular view from the top was worth it!

What does the word "arduous" mean in this passage?

*Rigor is the level of difficulty or challenge that is required to achieve a goal.*

*Rigor is the level of difficulty or challenge that is required to achieve a goal.*

*Rigor is the level of difficulty or challenge that is required to achieve a goal.*

1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Remember Information	Explain Ideas or Concepts	Use Information in a New Way	Distinguish Between Parts	Justify a Position or Decision	Create a New Product or Point of View

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## KEY CONCEPTS

Standard

Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
<b>Remember Information</b>	<b>Explain Ideas or Concepts</b>	<b>Use Information in a New Way</b>	<b>Distinguish Between Parts</b>	<b>Justify a Position or Decision</b>	<b>Create a New Product or Point of View</b>
Choose Define Find Estimate Label List Match Name Recognize Repeat Select <u>Tabulate</u>	Classify Compare Describe Estimate Graph Illustrate Interpret Name Measure Practice Report Summarize	Apply Build Calculate Classify Communicate Demonstrate Develop Graph Identify Model Organize Practice Solve Use	Analyze Break down Categorize Classify Determine the relationship Differentiate Examine Group Organize Separate Sort Specify	Argue Assess Conclude Create Criticize Decide Evaluate Investigate Predict Produce Prioritize Support	Adapt Build Combine Design Develop Integrate Investigate Modify Plan Produce Theorize Validate

Source: Rhode Island Department of Education, "Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects" (2010).

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# Rigor

**KEY CONCEPTS**

**Rigor**

- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Use the Rigor of Assessment Items to the Rigor of Skills
- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Practice the Rigor of Assessment Items to the Rigor of Skills

**Standard**

Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

1. Remember Remember Information	2. Understand Explain Ideas or Concepts	3. Apply Use Information in a New Way	4. Analyze Distinguish Between Parts	5. Evaluate Justify a Position or Decision	6. Create Create a New Product or Point of View
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**KEY CONCEPTS**

**How to Measure a Range of Student Thinking and Understanding**

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**KEY CONCEPTS**

**Rigor**

- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Use the Rigor of Assessment Items to the Rigor of Skills
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- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Practice the Rigor of Assessment Items to the Rigor of Skills
- How to Practice the Rigor of Assessment Items to the Rigor of Skills

**Assessment Items**

**"Stretch" Items & Lower-Level Items**

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# Rigor

**KEY CONCEPTS**

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Standards

How to Use Work to Determine a Student's Level of Rigor

How to Apply the Work to Assess Rigor

How to Prepare a Range of Instructional Practices and Assessments

How to Use the Assessment Blueprint

**Higher-Order Thinking**

6. Creating

5. Evaluating

4. Analysing

3. Applying

2. Understanding

1. Remembering

**Lower-Order Thinking**

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**KEY CONCEPTS**

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Standards

How to Use Work to Determine a Student's Level of Rigor

How to Apply the Work to Assess Rigor

How to Prepare a Range of Instructional Practices and Assessments

How to Use the Assessment Blueprint

**Standard**

The student solves problems involving direct proportional relationships. The student is expected to estimate and find solutions to application problems involving percent; and estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.

Source: Texas Education Agency Student Assessment Division, "Grade 7 Mathematics Assessment" (2010).

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**KEY CONCEPTS**

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Standards

How to Use Work to Determine a Student's Level of Rigor

How to Apply the Work to Assess Rigor

How to Prepare a Range of Instructional Practices and Assessments

How to Use the Assessment Blueprint

**Standard**

The student solves problems involving direct proportional relationships. The student is expected to estimate and find solutions to application problems involving percent; and estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.

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KEY CONCEPTS

Rigor

How to Pencil the Rigor Assessment Items to the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

**Assessment Item**

1. What is 67 percent of 81?
2. Shawn got 7 correct answers out of 10 possible answers on his science test. What percentage of questions did he answer correctly?
3. Adam was on pace to set a high-school basketball record for free throw percentage. Going into his senior year, he had made 97 of 104 free throw attempts. What percentage of free throws had he made?
4. Adam and Jamie were competing for the best free throw percentage. Adam made 94 percent of his first 103 shots, whereas Jamie made 47 of 51 shots.
  - a. Which one had a better shooting percentage?
  - b. In the next game, Adam made only 2 of 10 shots, and Jamie made 7 of 10 shots. What are their new overall shooting percentages? Who is the better shooter?
  - c. Christine argued that if Adam and Jamie each made their next 10 shots, their shooting percentages would go up the same amount. Is this true? Why or why not? Describe in detail how you arrived at your answers.

Source: Paul Bambrick-Santoyo, "Data in the Driver's Seat" (2007-2008).

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KEY CONCEPTS

Rigor

How to Pencil the Rigor Assessment Items to the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

How to Use the Rigor of Shots

**Standard**

The student solves problems involving direct proportional relationships. The student is expected to estimate and find solutions to application problems involving percent; and estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.

'Stretch' Items
&
Lower-Level Items

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KEY CONCEPTS

## How to Use the Assessment Blueprint

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# Rigor

## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Shifts

How to Use Verbs to Determine a Shift's Level of Rigor

How to Apply the Shift About Rigor

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

5th Grade  
Reading and Writing about Informational Texts

Standards → Classroom Assessments → Instruction

4 years

Sources: Ohio Department of Education, "Ohio's New Learning Standards: English Language Standards" (2010), Student Achievement Partners, "Mini Assessment for Who Was Marco Polo?" by Joan Holub and The Adventures of Marco Polo by Russell Freedman" (2014).

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## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Shifts

How to Use Verbs to Determine a Shift's Level of Rigor

How to Apply the Shift About Rigor

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

5th Grade  
Reading and Writing about Informational Texts

Standards → Classroom Assessments → Instruction

4 years

Summative Assessment

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## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Shifts

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5th Grade  
Reading and Writing about Informational Texts

Standards → Classroom Assessments → Instruction

4 years

Summative Assessment

Primary Purpose

1. Primary Purpose of the Assessment		2. Standard(s) (one per row)		3. Skill(s) (one per row)		4. Level(s) of Rigor		5. Possible Type(s) of Items	
Reading	Reading Informational Text 1: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	Reading Informational Text 2: Analyze how an author uses rhetorical details to support particular points in a text, identifying which reasons and evidence support which point(s).	Reading Informational Text 3: Analyze how the author uses rhetorical details to support particular points in a text, identifying which reasons and evidence support which point(s).	Writing	Writing 1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Writing 2: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Writing 3: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Writing 4: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Writing 5: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

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# Rigor

## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Skills

How to Use Verbs to Determine a Skill's Level of Rigor

How to Apply the Rigor of Skills

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

1. Primary Purpose of the Assessment	2. Skill(s) (one per row)	3. Level(s) of Rigor	4. Possible Type(s) of Items
<b>Reading Informational Text 4:</b> Quote accurately from the text when explaining what the text says explicitly and when drawing inferences from the text.	Identify main ideas and key details in the text.	Levels of Rigor	
<b>Reading Informational Text 5:</b> Determine how and what major ideas and supporting details are developed in the text.	Determine the meaning of new vocabulary words.		
<b>Reading Informational Text 6:</b> Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	Explain how the author uses evidence to support his or her claims.		
<b>Writing 5:</b> Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Write an opinion piece on texts. Support your point of view with evidence.		

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## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Skills

How to Use Verbs to Determine a Skill's Level of Rigor

How to Apply the Rigor of Skills

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

3. Skill(s) (one per row)	4. Level(s) of Rigor
Quote accurately from the text (explicitly and making inferences).	
Identify main ideas and how key details support them.	
Determine the meaning of new vocabulary words.	
Explain how the author uses evidence to support his or her claims.	
Write an opinion piece on texts.	
Support your point of view with evidence.	

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## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Skills


How to Use Verbs to Determine a Skill's Level of Rigor

How to Apply the Rigor of Skills

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

3. Skill(s) (one per row)	4. Level(s) of Rigor
Quote accurately from the text (explicitly and making inferences).	
Identify main ideas and how key details support them.	
Determine the meaning of new vocabulary words.	
Explain how the author uses evidence to support his or her claims.	
Write an opinion piece on texts.	
Support your point of view with evidence.	



1. Remember

2. Understand

3. Apply

4. Analyze

5. Evaluate

6. Create

Remember Information

Explain Ideas or Concepts

Use Information in a New Way

Distinguish Between Parts

Justify a Position or Decision

Create a New Product or Point of View

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## Rigor

[illegible]

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# KEY CONCEPTS

1. Primary Purpose of the Assessment	3. Skills (rate per row)	Summative	5. Possible Types of Items
2. Standards (rate per row)	4. Levels of rigor		
<b>Reading Informational Text 1:</b> Cite accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	Cite accurately from the text (explicitly and making inferences).	1	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;">Types of Items</div>
<b>Reading Informational Text 2:</b> Cite specific lines or portions of a text and explain how they are supported by key details; summarize the text.	Mainly main ideas and how key details support them.	2	
<b>Reading Informational Text 4:</b> Determine the meaning of general academic and domain-specific words and phrases as used in relevant texts for subjects studied.	Determine the meaning of new vocabulary words.	2	
<b>Reading Informational Text 6:</b> Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	Explain how the author uses evidence to support his or her claims.	4	
<b>Writing 5:</b> Write argument pieces on topics or issues, supporting a point of view with reasons and information.	Write an opinion piece with reasons.	5	
<b>Speaking and Listening 4:</b> Present a topic or text and statements that establish the topic, supplying textual evidence and commentary.  <b>Speaking and Listening 5:</b> Analyze a topic or text and issue, exploring different views on an issue, evaluating the reasoning behind different positions.	Support a point of view with evidence.		

*Note: The original diagram includes handwritten notes in boxes around the table, such as "Rigor" at the top left, "Five Practices for Rigorous Learning Item Type of Sub" on the left, "How to Use Webb's Level of Rigor" below that, "Link to the Key Concept Rigor" further down, "How to Prepare a Range of Integrated Learning and Student Learning" at the bottom left, and "How to Use the Assessment Matrix" at the bottom right.*

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# KEY CONCEPTS

The diagram illustrates Bloom's Taxonomy as a pyramid with six levels, from Lower-Order Thinking at the base to Higher-Order Thinking at the peak. A red arrow points upwards along the right side of the pyramid. To the left of the pyramid, five blue sticky notes provide additional context for each level. To the right, three icons represent the levels: 'Remembering' (blue), 'Applying' (blue), and 'Evaluating' (green).

Level	Thinking Skill	Icon
6	Creating	
5	Evaluating	
4	Analyzing	
3	Applying	
2	Understanding	
1	Remembering	

**Higher-Order Thinking**

**Lower-Order Thinking**

**Sticky Notes:**

- How to create the Rigoir of Learning Goals for the Page of Skills
- How to use the Rigoir of Learning Goals as a tool for learning
- How to use the Rigoir of Learning Goals as a tool for learning
- How to use the Rigoir of Learning Goals as a tool for learning
- How to use the Rigoir of Learning Goals as a tool for learning

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# Rigor

## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Skills

How to Use Verbs to Determine a Skill's Level of Rigor

How to Analyze the Rigor of Assessment Items

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

1. Primary Purpose of the Assessment	2. Standard(s) (one per row)	3. Skill(s) (one per row)	4. Level(s) of Rigor	5. Possible Type(s) of Items
Reading Informational Text 1:	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	Quote accurately from the text (explicitly and making inferences).	1	SR
Reading Informational Text 2:	Determine how or more main ideas of a text and explain how they are supported by key details; summarize the text.	Identify main ideas and how key details support them.	2	CR
Reading Informational Text 4:	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	Determine the meaning of new vocabulary words.	2	SR
Reading Informational Text 6:	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	Explain how the author uses evidence to support his or her claims.	4	CR
Writing 1:	Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Write an opinion piece on texts.	5	CR, PT
		Support your point of view with evidence.	5	CR, PT

Type(s) of Items

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## KEY CONCEPTS

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How to Use the Assessment Blueprint

1. Primary Purpose of the Assessment	2. Standard(s) (one per row)	3. Skill(s) (one per row)	4. Level(s) of Rigor	5. Possible Type(s) of Items
Reading Informational Text 1:	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	Quote accurately from the text (explicitly and making inferences).	1	SR
Reading Informational Text 2:	Determine how or more main ideas of a text and explain how they are supported by key details; summarize the text.	Identify main ideas and how key details support them.	2	CR
Reading Informational Text 4:	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	Determine the meaning of new vocabulary words.	2	SR
Reading Informational Text 6:	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	Explain how the author uses evidence to support his or her claims.	4	CR
Writing 1:	Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	Write an opinion piece on texts.	5	CR, PT
		Support your point of view with evidence.	5	CR, PT

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## KEY CONCEPTS

**Rigor**

How to Ponder the Rigor of Assessment Items to the Rigor of Skills

How to Use Verbs to Determine a Skill's Level of Rigor

How to Analyze the Rigor of Assessment Items

How to Prepare a Range of Potential Learning and Understanding

How to Use the Assessment Blueprint

Higher-Order Thinking

Lower-Order Thinking

Remembering

Understanding

Applying

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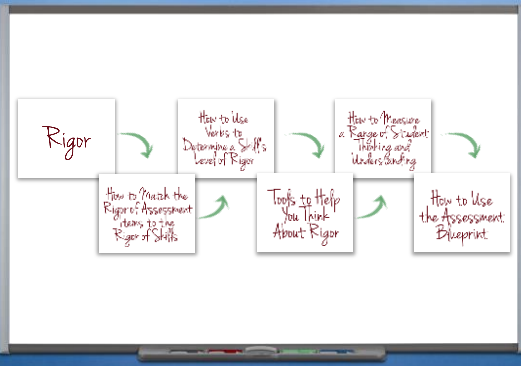
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# Rigor

## CHECK FOR UNDERSTANDING



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## CHECK FOR UNDERSTANDING

- ☒ Define what **RIGOR** means for the purpose of these modules
- ☒ Use the **VERBS** in standards and tools that teachers have available to identify the **COGNITIVE COMPLEXITY** in standards
- ☒ Explain why assessments with an appropriate level of rigor also measure a **RANGE OF STUDENT THINKING AND UNDERSTANDING**
- ☒ Use the **ASSESSMENT BLUEPRINT** to document the level of rigor of each skill

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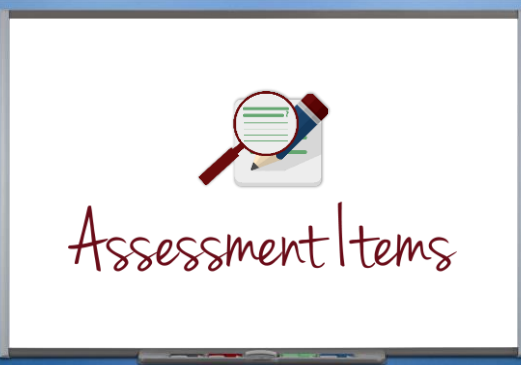
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## CHECK FOR UNDERSTANDING



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## CHECK FOR UNDERSTANDING



### Assessment Item

- Using Bloom's Taxonomy, identify the level or levels of rigor in this standard from Iowa. Remember to pay close attention to the verbs.

Understand the use of geographic tools to locate and analyze information about people, places, and environments.

1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Remember Information	Explain Ideas or Concepts	Use Information in a New Way	Distinguish Between Parts	Justify a Position or Decision	Create a New Product or Point of View

Source: Iowa Department of Education, "Iowa Core K-12 Social Studies" (2010).

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## CHECK FOR UNDERSTANDING



### Assessment Item

- Using Bloom's Taxonomy, identify the level or levels of rigor in this standard from Iowa. Remember to pay close attention to the verbs.

Understand the use of geographic tools to locate and analyze information about people, places, and environments.

1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Remember Information	Explain Ideas or Concepts	Use Information in a New Way	Distinguish Between Parts	Justify a Position or Decision	Create a New Product or Point of View




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## CHECK FOR UNDERSTANDING



### Answer

- Using Bloom's Taxonomy, identify the level or levels of rigor in this standard from Iowa. Remember to pay close attention to the verbs.

Understand the use of geographic tools to locate and analyze information about people, places, and environments.

The key verbs in the skills in this standard are "use" and "analyze," which are associated with lower- and higher-order skills. "Understand" is a level 1 skill, and "analyze" is a level 4 skill.

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## CHECK FOR UNDERSTANDING



### Assessment Item

2. Explain in your own words why well-designed assessments should measure a range of student thinking and understanding.

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## CHECK FOR UNDERSTANDING



### Assessment Item

2. Explain in your own words why well-designed assessments should measure a range of student thinking and understanding.




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## CHECK FOR UNDERSTANDING



### Answer

2. Explain in your own words why well-designed assessments should measure a range of student thinking and understanding.

*Well-designed assessments include items with various levels of rigor to ensure that they measure what all students know and can do. If assessments are too easy, some students may not have the opportunity to demonstrate the upper bounds of what they know and can do. I should include items in my assessment that challenge all of my students.*

*On the other hand, if assessments are too complex, some students may not be able to showcase their knowledge and skills at all. I can include items that require lower-level thinking to reveal where learning breaks down among students struggling to master a standard.*

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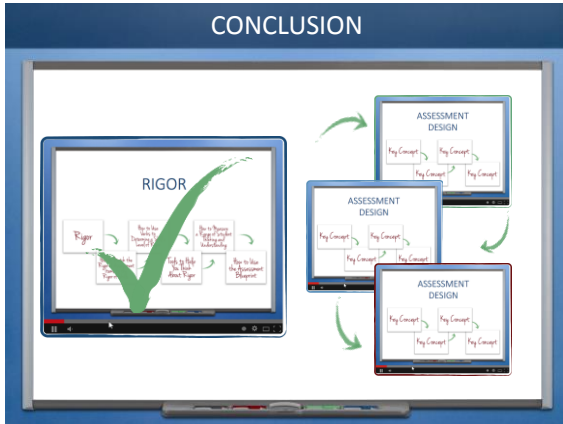
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# Rigor



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