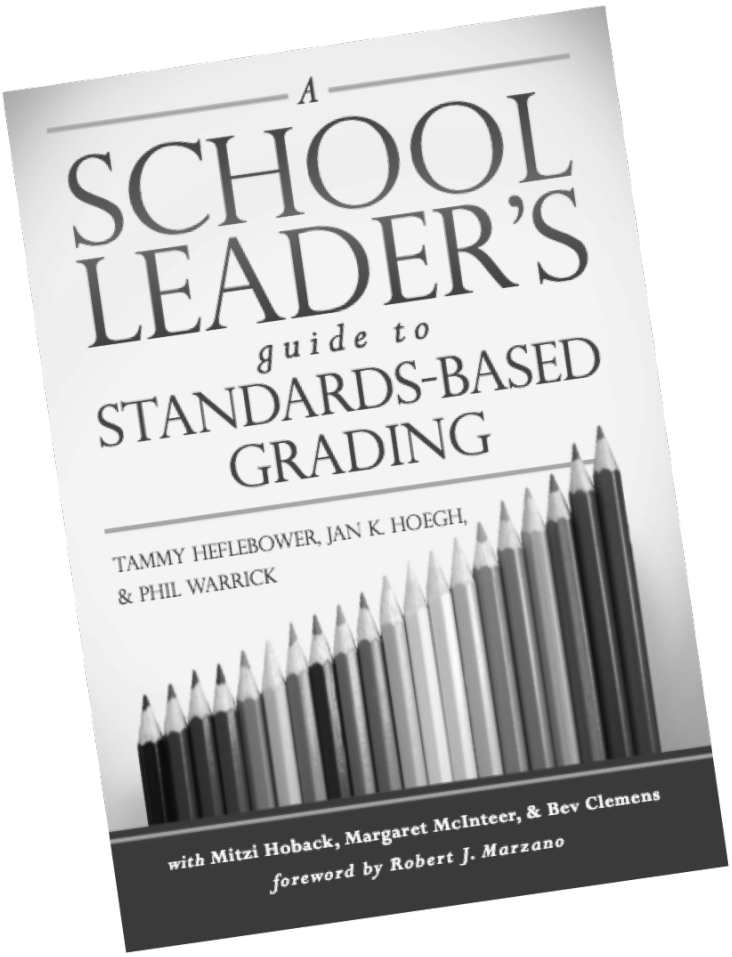
Formative Assessment & Standards-Based Grading

Closing Keynote



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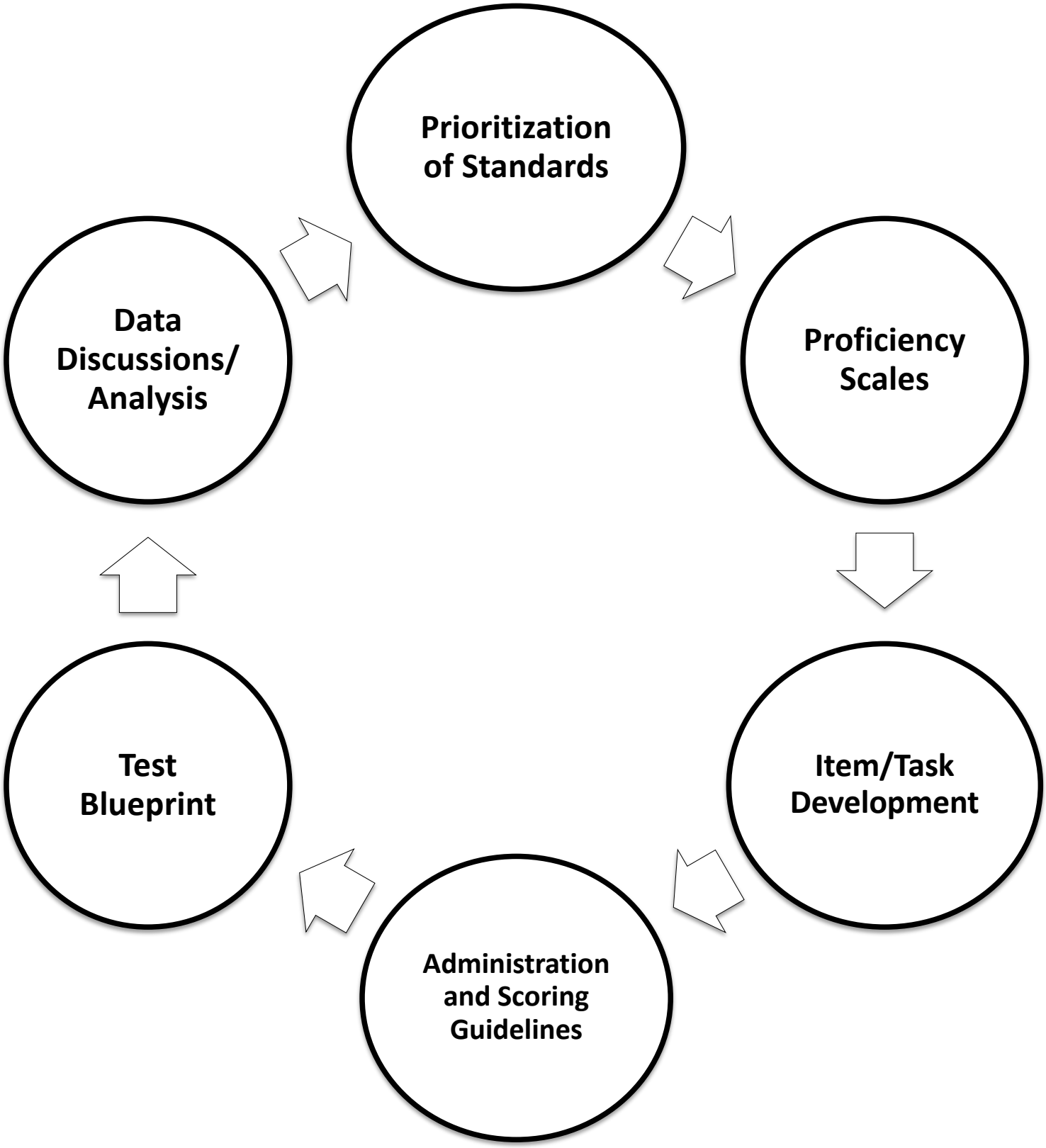
https://padlet.com/tammy_heflebower/SHOWMEPD18

Common Assessment Development Cycle



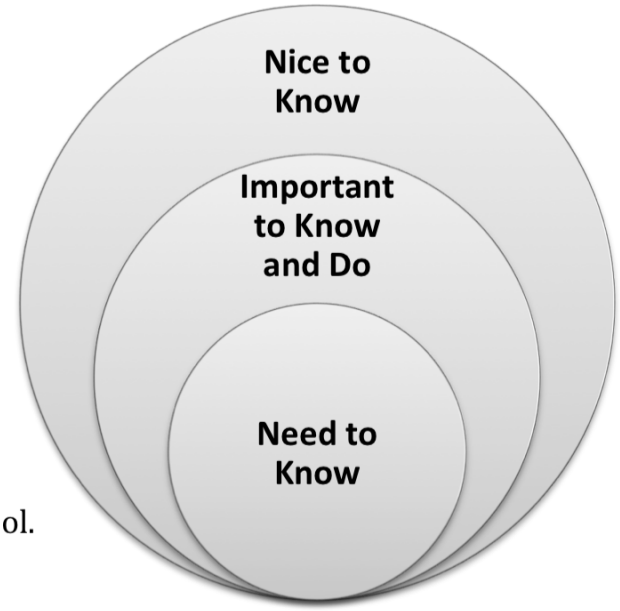
The Initial Step of Writing Proficiency Scales

Follow these next steps for getting clear about what students should know and be able to do:

- First, identify priority learning goals within the curriculum.
- Then, develop a proficiency scale for each priority learning goal.
- Be sure to work collaboratively!

What Is a Guaranteed and Viable Curriculum?

- A viable curriculum is a well-articulated set of knowledge and skills that every child should learn in grades K–12. Viable also means it can be taught for understanding in the time available.
- A guaranteed curriculum means it is taught in every classroom in every school.



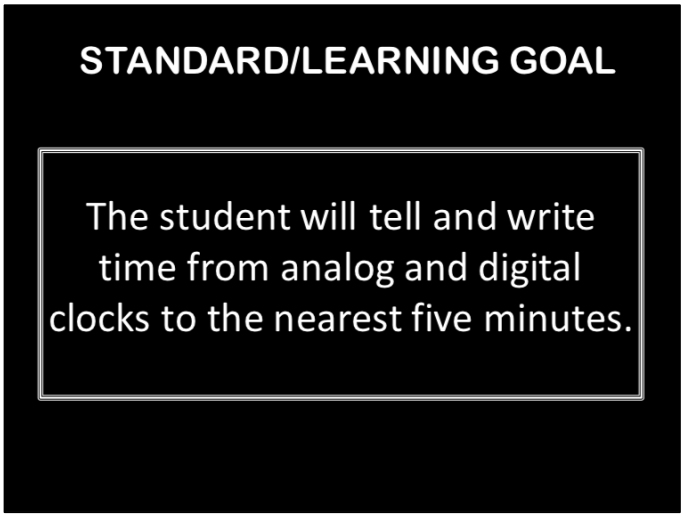
A guaranteed and viable curriculum is comprised of three main elements. (Adapted from McTighe and Wiggins, *Understanding by Design*, 2005)

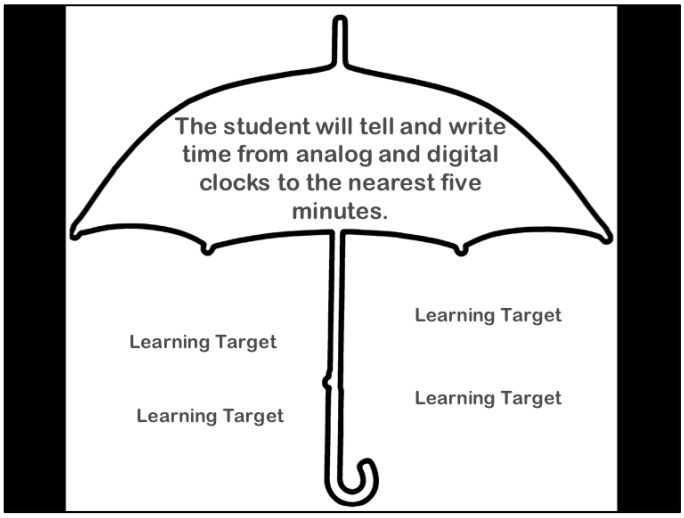
What Are Criteria for Priority?

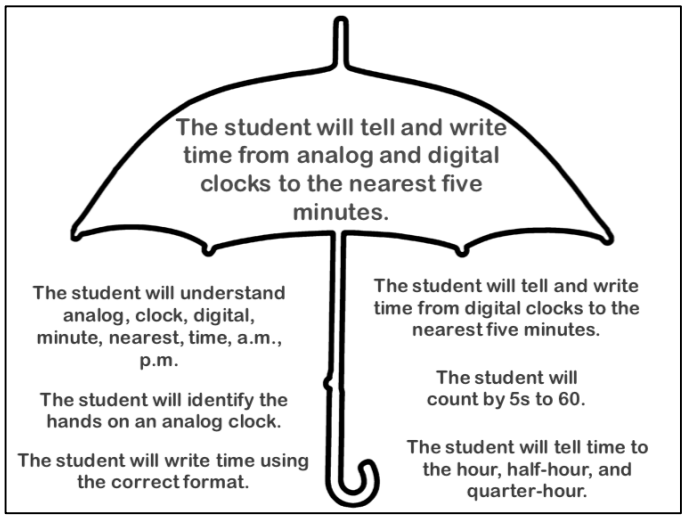
- **Endurance:** Will this provide knowledge and skills that are valuable beyond a single test date?
- **Leverage:** Will this provide knowledge and skills that are valuable within multiple disciplines?
- **Readiness for next level of learning:** Will this provide students with tools for success at the next level or grade?
- **Teacher judgment:** Is this skill or knowledge critical for all students to know or be able to do?
- **Assessment connection:** Will this skill or knowledge be assessed on an instrument used for instructional decision-making?

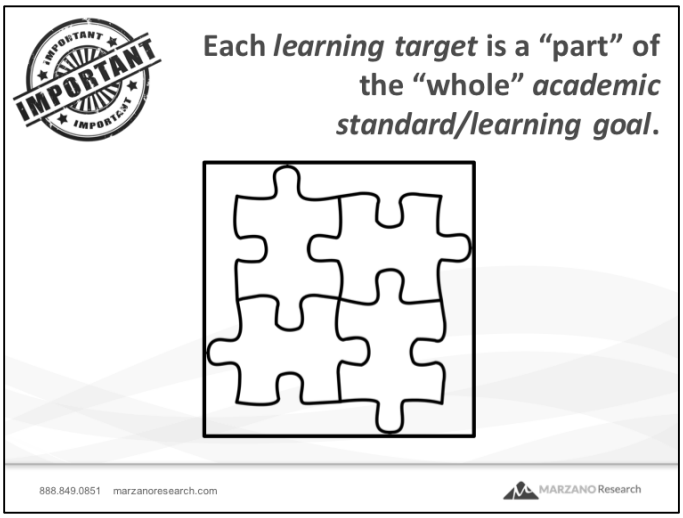
Learning Goals

A statement of what students will know and be able to do. Dr. Marzano suggests two formats, one for declarative knowledge or information (represented as: "Students will understand…" and one for procedural knowledge or strategies, skills, and processes (represented as: "Students will be able to…").









Scale Example

THEME/CENTRAL IDEA	
Score 4.0	The student will (for example): • Analyze multiple texts with different themes. • Explain how he/she has experienced the theme of a text.
Score 3.0	The student will: • Describe a theme or central idea of a text. • Summarize a grade-appropriate text.
Score 2.0	The student will: • Recognize or recall specific terminology, such as: central idea, detail, summarize, support, text, theme. • Determine a theme or central idea of a text from teacher-provided options • Identify details that support the theme or central idea of a text. • Summarize a text using a teacher-provided graphic organizer.

STANDARD/LEARNING GOAL

The student will solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Learning Targets

1) The student will use $ and ¢ symbols appropriately.

2) The student will recognize or recall specific terminology, *such as*: value, coin, all together, remaining, decimal.

3) The student will solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.

4) The student will add or subtract different coins to determine a total amount of money or money remaining.

5) The student will identify coin values (quarter, dime, nickel, penny).

Score 4.0 – More complex Demonstrations of learning that go above and beyond what was explicitly taught
Score 3.0 – The learning goal/expectation for all
Score 2.0 – The simple content Foundational knowledge, simpler procedures, isolated details, vocabulary
Score 1.0 – with help, the student can perform Score 2.0 and 3.0 expectations
Score 0.0 – Even with help, the student cannot perform expectations

1) PRIORITY STANDARD

4.NF.2

Compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison

2) PROFICIENCY SCALE

NUMBER AND QUANTITY **Compare Fractions** Grade 4	
Score 4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.** • *For example*, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least • *For example,* the student compares improper and/or mixed fractions with unlike denominators
Score 3.0	**The student:** • compares two fractions with different numerators and different denominators using <, >, and = • justifies the comparison
Score 2.0	**The student recognizes or recalls specific vocabulary, such as:** • compare, comparison, denominator, equivalent, fraction, generate, justify, numerator **The student performs basic processes, such as:** • recognizes symbols, such as <, >, and = • recognizes and generates equivalent fractions • compares two fractions with like denominators
Score 1.0	**With help, the student demonstrates partial success at score 2.0 and score 3.0**

A great resource for proficiency scales is available!

- Website
  http://www.marzanoresearch.com
- FREE resources
  - Proficiency scale bank

MEASUREMENT, DATA, STATISTICS, AND PROBABILITY			
Time			
Grade 2			
Score 4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.** **The student will:** • solve real-world problems involving elapsed time • write correct digital time from an analog clock and the reverse		
	Score 3.5	*In addition to score 3.0 performance, partial success at score 4.0 content*	
Score 3.0	**The student will:** • tell and write time from analog clocks to the nearest five minutes (2.MD.7)		**Sample Activity:** **What Time Is It?** Materials: analog clock in the classroom Procedures: Periodically during the day, the student will tell and/or write the time, also indicating what he/she is doing at particular time of the school day.
	Score 2.5	*No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content*	
Score 2.0	**The student will recognize or recall specific vocabulary, such as:** • analog, clock, digital, minute, nearest, time, a.m., p.m. **The student will perform basic processes, such as:** • tell and write time from digital clocks to the nearest five minutes (2.MD.7) • identify the hands on an analog clock • count by 5s to 60 • tell time to the hour, half-hour, and quarter-hour • Write time using the correct format		**Sample Activities:** **Beat the Timer Center Activity:** Materials: cards with different times to the five minutes; cards with digital clocks showing different times to the five minutes; egg timer Procedures: The student will match the times with the correct clock, trying to beat the egg timer.
	Score 1.5	*Partial success at score 2.0 content, and major errors or omissions regarding score 3.0 content*	
Score 1.0	**With help, partial success at score 2.0 content and score 3.0 content**		
	Score 0.5	*With help, partial success at score 2.0 content but not at score 3.0 content*	
Score 0.0	**Even with help, no success**		

The Five-Step Process for Developing Proficiency Scales

1) Determine the topic of the proficiency scale.
2) Determine the language of score 3.0 (the target learning goal).
3) Determine vocabulary related to the target learning goal and record it in score 2.0.
4) Determine prerequisite knowledge and skills and record it in score 2.0.
5) Discuss how a student might demonstrate a score 4.0 performance.

Topic:

Score 4.0 – More complex Demonstrations of learning that go above and beyond what was explicitly taught The learner will:
Score 3.0 – The target learning goal/expectation for all The learner will:
Score 2.0 – The simpler stuff Foundational knowledge, simpler procedures, isolated details, vocabulary The learner will:
Score 1.0 - With help, the student can perform Score 2.0 and 3.0 expectations
Score 0.0 - Even with help, the student cannot perform expectations

Important Idea #1…

Proficiency scales provide clear focus for instruction to essential learning goals.

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Important Idea #2…

Proficiency scales serve as the framework for a high-quality classroom assessment.

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Important Idea #3…

Proficiency scales ensure alignment of curriculum, instruction, assessment, and feedback.

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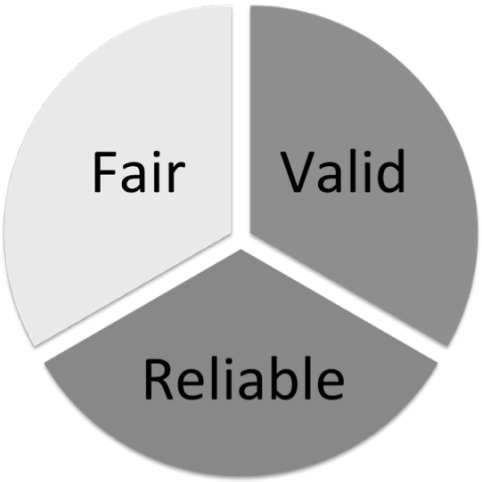
Notes:

Aligning Essential Content With Instruction and Assessment

	Knowledge and Skills	Classroom Instructional Activities	Assessments
4	Typical knowledge and skills in addition to Score 3.0		
3	Knowledge and skills expected for proficiency		
2	Knowledge and skills just below proficiency • Recognizes or recalls specific terminology • Performs basic processes		

Notes:



Quality Criteria for Classroom Assessments

1. Assessments are *valid.*   *The assessment measures what is intended to be measured. It produces accurate and truthful results.*
2. Scoring is consistent or *reliable*.   *The assessment produces believable results that mirror the learning that has occurred. Consistent results are gleaned across multiple users of the tool.*
3. Assessments and surrounding processes are *fair*.   *-The level of the assessment is appropriate.*   *-Students have received adequate opportunity to learn.*   *-The assessment is free from bias and the format does not interfere with students engaging in the assessment.*

LIFE SCIENCE Heritable Traits Grade 7	
Score 4.0	**The student will:** • **Discuss how heritable traits and nonheritable traits affect one another.**
Score 3.0	**The student will:** • **Differentiate heritable traits from nonheritable traits in real-world scenarios.**
Score 2.0	**The student will:** • **Recognize accurate statements about and isolated examples of heritable and nonheritable traits.**
Score 1.0	**With help, partial success at score 2.0 content and score 3.0 content.**
Score 0.0	**Even with help, no success.**

Using the proficiency scale above, please label each item as score 2.0, score 3.0, or score 4.0.

_____ Name three traits you like about yourself. Are these heritable traits or not? Explain your answer.

_____ Hemophilia is an inherited disease that prevents your blood from clotting. This means that if you ever get a cut or a scrape, you might lose so much blood that it could be life threatening. If you were born with this disease, what kinds of things would you have to avoid? What kinds of things might you be good at instead? What kinds of personality traits might you have that other people might not have? Explain your answer.

_____ True or False: All diseases are inherited. _____

_____ Put a check in front of the traits you can develop over time.

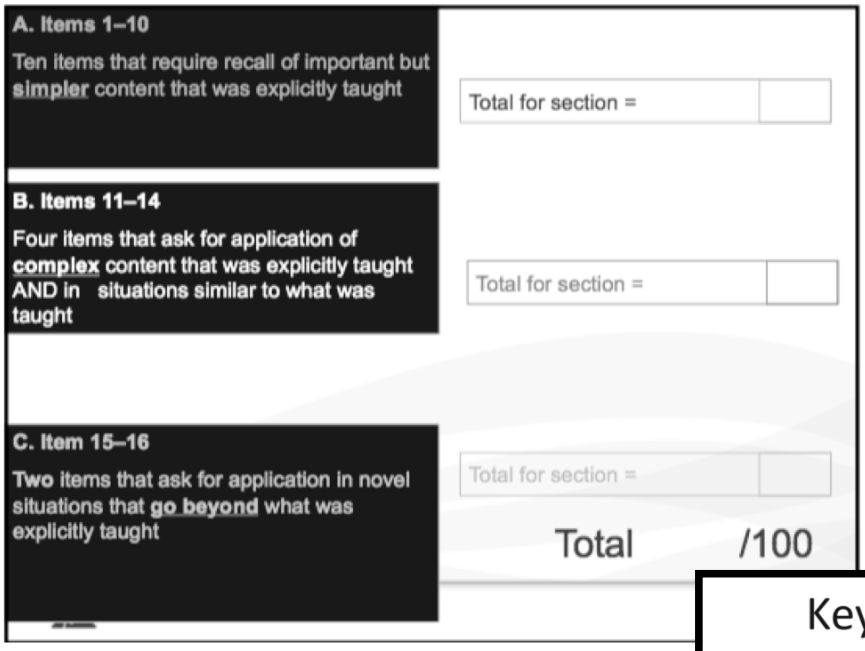
___ shoe size ___ gender ___ knowledge of history ___ fear of snakes

_____ Joey signed up for the summer spelling bee just after Christmas. He did not practice very much because he was playing baseball, and he went to Florida with his parents over spring break. When the bee came, he lost in the first round. Later that night he told his mother he lost because he is not very smart about words. Do you think this is correct? Why or why not?

_____ True of False: If your mom is afraid of roller coasters, you will inherit that fear from her.

_____ Simon's mother always asks him to go to the grocery store with her so that he can reach the items on the top shelf. He can reach almost everything she points out. Is this because Simon was born tall, or is it because he has so much practice reaching for items in high places? Has he inherited his ability to reach items on the top shelf? Explain your answer.

_____ Examples of inherited traits are _____ and _____.



Key Components of SB System

- Examine the student's performance on assignments and assessments.
- Give more weight to recent information.
- If necessary, discuss the content with the student to shed light on his or her learning progress.
- Limit use of zeros.
- Know the limitations of averaging.
- Separate what students know from how they behave.
- Acknowledge unique considerations among elementary, middle and secondary schools

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Monett, Middle School Learner Behaviors Aligned to School Mission

Respectful			
1 - *Rarely* Meets Expectations	**2 - *Occasionally* Meets Expectations**	**3 - *Consistently* Meets Expectations**	**4 - *Consistently* Exceeds Expectations**
Possible Indicators of Being Respectful:			
Exhibits a positive attitude.			
Contributes to the positive flow in class.			
Respects self, others, and property.			
Follows basic classroom instructions.			
Responsible			
1 - *Rarely* Meets Expectations	**2 - *Occasionally* Meets Expectations**	**3 - *Consistently* Meets Expectations**	**4 - *Consistently* Exceeds Expectations**
Possible Indicators of Being Responsible:			
Arrives to class prepared.			
Has a strong work ethic.			
Consistently turns in assignments.			
Attends regularly.			
Makes up work in a timely manner.			
Learners			
1 - *Rarely* Meets Expectations	**2 - *Occasionally* Meets Expectations**	**3 - *Consistently* Meets Expectations**	**4 - *Consistently* Exceeds Expectations**
Possible Indicators of an Appropriate Learner:			
Takes an active role in class activities.			
Stays on task.			
Arrives ready to work.			
Accepts constructive criticism.			

Determining an Appropriate Summative Score for a Priority Standard

Student #1 Body of Evidence						
Standard(s)	**Formative Score #1**	**Formative Score #2**	**Formative Score #3**	**Formative Score #4**	**Formative Score #5**	**Summative Score**
Multiplication (4.OA.1, 4.OA.2, 4.NBT.5)	1.5	2.0	2.0	3.0	3.0	

Student #2 Body of Evidence						
Standard(s)	**Formative Score #1**	**Formative Score #2**	**Formative Score #3**	**Formative Score #4**	**Formative Score #5**	**Summative Score**
Multiplication (4.OA.1, 4.OA.2, 4.NBT.5)	2.0	3.0	3.5	3.0		

Student #3 Body of Evidence						
Standard(s)	**Formative Score #1**	**Formative Score #2**	**Formative Score #3**	**Formative Score #4**	**Formative Score #5**	**Summative Score**
Multiplication (4.OA.1, 4.OA.2, 4.NBT.5)	2.0	3.0	2.0	1.5	3.0	

Student #4 Body of Evidence						
Standard(s)	**Formative Score #1**	**Formative Score #2**	**Formative Score #3**	**Formative Score #4**	**Formative Score #5**	**Summative Score**
Multiplication (4.OA.1, 4.OA.2, 4.NBT.5)	4.0	3.5	3.5			

Writing Quality Assessment Items

Selected Response Items

- True/False
- Matching
- Multiple Choice

True/False

- Related to a single idea
- Absolutely true OR absolutely false
- Avoid using qualifiers, opinions, and negatives
- Use sparingly, as students have a 50-50 chance of guessing the correct answer

Matching

- Homogeneous in content
- Keep the matching set short
- Uneven number of items to be matched OR items may be used more than once
- Longer reading on the left, matching items on the right

Multiple-choice

- Problem clear in the item stem
- Stem stated in the positive when possible
- Emphasize qualifiers in the stem
- All answer choices plausible
- Answer choices parallel in grammar and length
- Avoid "all" or "none of the above"
- Answer choices in a logical order
- Avoid clues in answer choices
- One correct response possible

Constructed Response Items

- Fill-in-the-blank
- Short Answer
- Essay

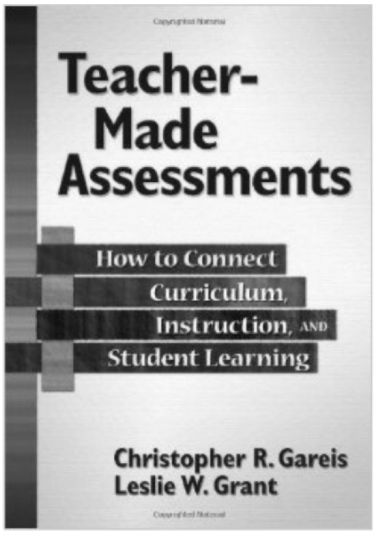
Fill-in-the blank

- Position the blank at the end of the sentence, if possible
- Limit the number of blanks in an item
- Blanks should be same length
- Be sure information prior to/surrounding the blank is adequate
- May use a word bank

Short Answer and Essay Items

- Make the nature of the response desired clear to the reader
- Develop and communicate scoring criteria for the question
- Provide adequate space for responses.

RESOURCE:



Reliability Considerations

- Does the assessment provide enough opportunities for students to demonstrate what they know about the intended learning?
  - Number of items
  - Test Blueprint
- Two Types of Reliability
  1. Inter-rater reliability
     - What is it?
       - Consistency between or among various raters.
     - How do you enhance it?
       - Use exemplars
       - Review student work and conduct inter-rater conversations
       - Randomly sample
       - Stratify a randomized sample
  2. Intra-rater reliability
     - What is it?
       - Consistency within the rater
     - How do you enhance it?
       - Students put names on the back
       - Grade one constructed response item all the way through the stack
       - Shuffle papers between each evaluation
       - Re-norm your expectations with the criteria when you go to a new constructed response item

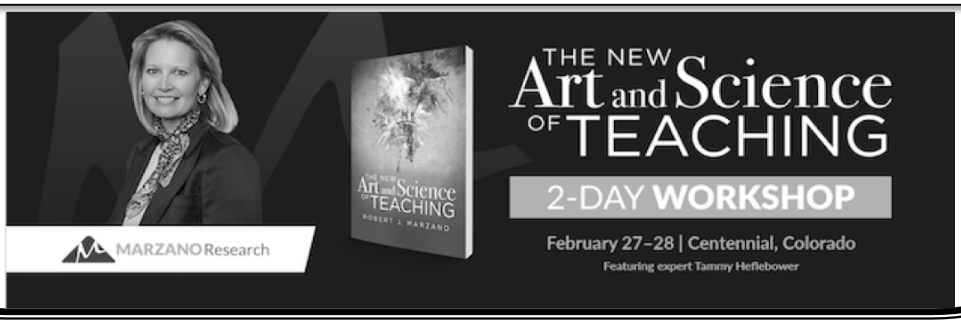
Key Question about any assessment: Can we make a confident inference about the learning that has occurred as a result of the instructional unit?

Notes

Notes

Tammy Heflebower, Ed.D., is a highly sought-after school leader and consultant with vast experiences in urban, rural, and suburban districts throughout The United States, Canada, The Netherlands, Denmark, England, and Australia. Dr. Heflebower has served as an award-winning classroom teacher, building leader, district leader, regional professional development director, and national and international trainer. She has also been an adjunct professor of curriculum, instruction, and assessment at several universities, and a prominent member and leader of numerous statewide and national educational organizations.

She is lead author of an award-winning book titled, *A School Leader's Guide to Standards-Based Grading,* co-author of *Collaborative Teams That Transform Schools: The Next Step in PLCs,* and

Teaching & Assessing 21st Century Skills, as well as contributing author to over a dozen other books and publications.

Dr. Heflebower holds a bachelor of arts from Hastings College where she was honored as *Outstanding Young Alumna* and inducted into the athletic hall of fame. She has a master of arts from UNO, and her educational administrative endorsement and doctorate from UNL.