# Assessment Literacy and Formative Assessment Resource Development Training

## Presented by Marzano Research
## for
## Wyoming Department of Education
### Spring 2016



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*"In the last decade of the 20th century, the picture of what constitutes an effective school became much clearer. Among elements such as a well-articulated curriculum and a safe and orderly environment, the one factor that surfaced as the single most influential component of an effective school is the individual teachers within that school."*

Marzano, R. J. (2007). The Art and Science of Teaching. p. 1

## Day #1 Learning Outcomes:

o Gain an awareness of the research regarding classroom assessment.
o Understand the differences among obtrusive, unobtrusive, and student-generated assessments and how to use each in the classroom.
o Learn essential practices for classroom assessment:
   1) Identify priority standards for informing classroom assessment development.
   2) Provide clear understanding of the learning goal through proficiency scale development.
   3) Provide instruction that focuses on the learning goal.
   4) Provide frequent and meaningful feedback.
   5) Provide opportunities for students to set goals, reflect on learning, and track their own progress.
o Learn about common assessment development for monitoring student progress to essential content.
o Learn data analysis practices related to classroom assessment.

## Day #2 Learning Outcomes:

o Learn about developing high-quality performance assessments.
o Learn how to design valid, reliable, and fair classroom assessments that meet technical quality requirements of the Wyoming District Assessment System.
o Explore Webb's Depth of Knowledge and how to apply cognitive demand principles to assessment development.
o Discover unobtrusive and student-generated assessment techniques that provide additional checks for understanding.

# High-Quality Classroom Assessment

| Before | | Statements | After | |
|---|---|---|---|---|
| T | F | 1. Assessment is one means of offering students feedback. | T | F |
| T | F | 2. While there are multiple types of classroom assessment, obtrusive assessment should be used more frequently than other types. | T | F |
| T | F | 3. A standard can also be called a learning goal. | T | F |
| T | F | 4. A teacher need only be concerned about teaching content considered priority. | T | F |
| T | F | 5. A proficiency scale is a collection of related statements of knowledge gain. | T | F |
| T | F | 6. All proficiency scales should be written in student-friendly language. | T | F |
| T | F | 7. A proficiency scale is to be used by the classroom teacher only. | T | F |
| T | F | 8. All items on an assessment should be written at the level of the standard. | T | F |
| T | F | 9. Effective feedback is corrective in nature. | T | F |
| T | F | 10. A common assessment typically results in data discussions. | T | F |

# A Balanced Assessment System

**PAWS**

**ACT**

District Benchmark Assessments
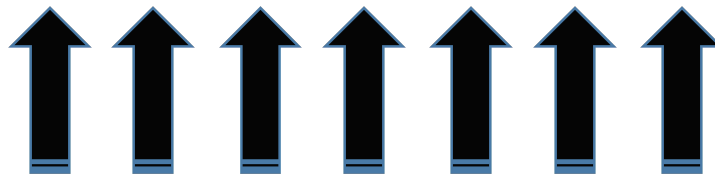
School-Level Common Assessments
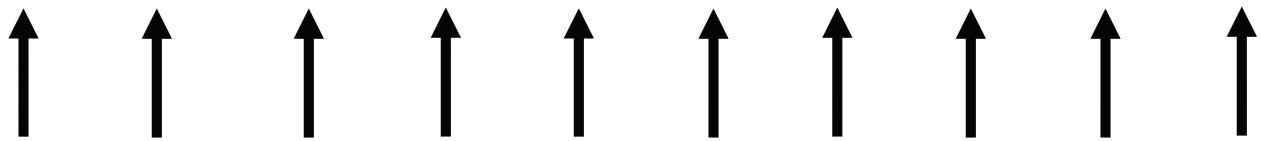
Individual Teacher Administered Assessments

Professional Learning Communities

# Three Types of Assessment

| Assessment Type | Definition | Examples |
|---|---|---|
| | | |
| | | |
| | | |

*Formative Assessment and Standards-Based Grading*
Marzano, 2010

Exercise 2.1

# Obtrusive, Unobtrusive, and Student-Generated Assessments

After reading each of the following classroom assessment scenarios, determine whether it is best classified as an example of obtrusive, unobtrusive, or student-generated assessment.

1. Mona is very close to receiving an A on the content that has been covered in her art class this quarter. She approaches the teacher and proposes that she provide a sketch to show she has mastered the techniques presented during the quarter.

2. After teaching the concept of a thesis statement, discussing examples of successful thesis statements, and providing the students with opportunities for practice, Mr. Grace gives his students a topic and asks them to write a corresponding thesis statement. He scores the effectiveness of the thesis statements using a rubric and records the scores for each student.

3. After teaching a unit on editing and revising, Ms. Minturn asks her students to pull out a hard copy of an essay they composed earlier in the year. She breaks the class into pairs and asks them to read and suggest edits and revisions on their partners' essays. She collects the revisions and grades each student according to a rubric on the effectiveness of his or her editing.

4. Mr. Davis is teaching a unit on shading. He takes his class to an outside garden, and while the students are creating compositions focusing on the shadows and colors they see, he walks around and observes their progress. Without interrupting, he records an assessment score for each student in his gradebook.

5. Ms. Lewis has been working with her students on a cooperative learning goal. While she is monitoring recess, she notices four of them working together to complete a double-dutch jump rope game. Because all four students have to cooperate to reach their goal, Ms. Lewis decides these students have fulfilled the requirement for score 3.0 on the rubric she has designed for cooperative skills.

**What the Research Says about Learning Goals…**

Learning targets convey to students the **destination for the lesson** – what to learn, how deeply to learn it, and exactly how to demonstrate their new learning. In our estimation (Moss & Brookhart, 2009) and that of others (Seidle, Rimmele, & Prenzel, 2005; Stiggins, Arter, Chappuis, & Chappuis 2009), the intention for the lesson is one of the most important things students should learn. **Without a precise description of where they are headed, too many students are "flying blind."**

Moss, Brookhart, Long (2011). Knowing Your Learning Target. Educational Leadership. 68 (6). Pp. 66-69

The starting place for all effective instruction is designing and communicating clear learning goals.

Marzano (2009)

Our collective goal is that the largest possible percentage of our students get there. To reach that goal we must define for ourselves and for them where "there" is. **Any energy you invest in becoming clear about your targets will pay dividends…**

Stiggins (1994)

*If teachers aren't sure of instructional goals, their instructional activities will not be focused, and unfocused instructional activities do not engender student learning.*

Marzano (2009)

To begin the prioritization process, leaders first help teachers by explaining criteria that should be considered when evaluating standards to decide if they should be prioritized or not. Second, leaders allocate time and space for the work to happen. Finally, leaders use a four-step process to help teachers navigate the actual prioritization of the standards.

## Criteria for Prioritized Standards

Before teams begin to identify prioritized standards, they must understand the criteria for determining which standards should be prioritized. According to Larry Ainsworth (2003), there are three criteria to consider when determining which standards to prioritize:

1. **Endurance—**Knowledge and skills that will last beyond a class period or course

2. **Leverage—**Knowledge and skills that cross over into many domains of learning

3. **Readiness—**Knowledge and skills important to subsequent content or courses

Our experience has indicated that two additional criteria should also be considered:

1. **Teacher judgment—**Knowledge of content area and ability to identify more- and less-important content

2. **Assessment—**Student opportunity to learn content that will be assessed

As an example of how teachers can evaluate a specific standard for these five criteria, consider the following ELA standard from the Common Core State Standards (CCSS):

> Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. (RI.4.7; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010a, p. 14)

This standard demonstrates endurance, leverage, and readiness—students will use these skills long after the test, in multiple disciplines, and in other content areas or courses. It is also has strong teacher judgment and assessment connections. In contrast, consider a Common Core standard related to speaking and listening:

> Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. (SL.4.5; NGA & CCSSO, 2010a, p. 24)

While this standard may have some measure of endurance and leverage, it contains fewer readiness skills than the first standard. When asked to use their judgment, many teachers indicate that SL.4.5 should be a subordinate standard that is connected to and

## **Priority or Supporting Standards** – *Work collaboratively to make decisions about each standard below.*

### **P = Priority          S = Supporting**

_____ Determine a theme of a story, drama, or poem from details in the text

_____ Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing

_____ Measure areas by counting unit squares

_____ Fluently add and subtract multi-digit whole numbers using the standard algorithm

_____ Ask questions about data to determine the factors that affect the strength of electric and magnetic forces

_____ Use observations of the sun, moon, and stars to describe patterns that can be predicted

_____ Explain that currency must be converted to make purchases in other countries

# Proficiency Scales

| Score 4.0 | In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class |
|---|---|
| Score 3.0 | No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught |
| Score 2.0 | No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes |
| Score 1.0 | With HELP, a partial knowledge of some of the simpler and complex details and processes |
| Score 0.0 | Even with help, no understanding or skill demonstrated |

## Proficiency Scale "Look Fors"

**Scales SHOULD be:**
- ◇ Related to the learning goal
- ◇ Posted and able to be read by students
- ◇ Written in student-friendly language (when appropriate)
- ◇ Referenced during the lesson

**Students SHOULD be able to explain:**
- ◇ The meaning of the levels of performance articulated in the scale

# 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<br>Demonstrations of learning that go above and beyond what was explicitly taught<br><br>The learner will: |
| **Score 3.0** – The target learning goal/expectation for all<br><br>The learner will: |
| **Score 2.0** – The simpler stuff<br>Foundational knowledge, simpler procedures, isolated details, vocabulary<br><br>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 |

# Writing Scales in Student-Friendly Language

*Page 45...*
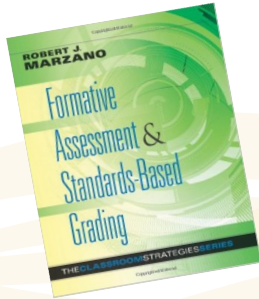
The student will ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

| 4 | I can ask and answer questions to show that I understand a beyond grade-level text.<br>I can infer answers to questions about a beyond grade-level text and identify in the text evidence for my answer. |
|---|---|
| 3 | I can ask and answer questions to show that I understand a text and I can refer to the text as the basis for my answers. |
| 2 | I can tell the meaning of words such as *answer, ask, basis, detail, explicit, question, refer, text.*<br>I can answer teacher-provided questions to show that I understand a text. |
| 1 | With help from my teacher or someone else, I can identify the meaning of words such as *answer, ask, detail, question, refer, text*.<br>With help from my teacher or someone else, I can identify the answer to teacher-provided questions about a text. |

**Notes:**

### Discussion Questions

1) What is meant by a proficiency scale being written in "student- friendly language?"

2) What benefit may result from asking students to be involved in rewriting scales in student-friendly language?

**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:

**LIFE SCIENCE**
**Heritable Traits**
**Grade 7**

| | |
|---|---|
| **Score 4.0** | **The student will:**<br>• **Discuss how heritable traits and nonheritable traits affect one another.** |
| **Score 3.0** | **The student will:**<br>• **Differentiate heritable traits from nonheritable traits in real-world scenarios.** |
| **Score 2.0** | **The student will:**<br>• **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 _____ .

# Example Items
# Learning Goal: *Reproduction and Heredity*

## Score 2.0

Match each vocabulary term with the answer that best describes it by writing the letter of the correct answer next to its corresponding vocabulary term. There are more answers than there are vocabulary terms, so you won't find a term for every answer.

(a)  The process that results in an offspring that is an exact copy of the one parent       _____heredity

(b)  The product of the reproductive process of an animal or plant

(c)  The process of passing instructions for specifying traits from one generation to another      _____offspring

(d)  The process that involves a male and female parent

(e)  The product of asexual reproduction      _____sexual reproduction

(f)  The element of a cell that carries a single unit of information

(g)  The product of a cell dividing

(h)  The element of a cell that allows the cell to split      _____asexual reproduction

(i)  The contribution of the male in the reproductive process

(j)  The part of the cell that houses the chromosomes      _____gene

(k)  The type of reproduction used by all animals and all forms of bacteria

## Score 3.0

Which of the following *best* explains what would happen to a field of flowering plants if most of the insects and birds that visited the field suddenly died out and no other insects or birds replaced them? When you have selected your answer, explain what is incorrect about each of the answers you did not select.

(a)  The plants would all dies out because the birds and insects leave fertilizer that makes the plants grow.

(b)  The plants wouldn't be affected too much because they can live without birds and insects.

(c)  The plants would all die because insects and birds help the plants reproduce sexually.

(d)  The plants would all die because the insects and birds help the plants reproduce asexually.

(e)  Some but not all of the plants would die because the insects and birds help the plants reproduce sexually.

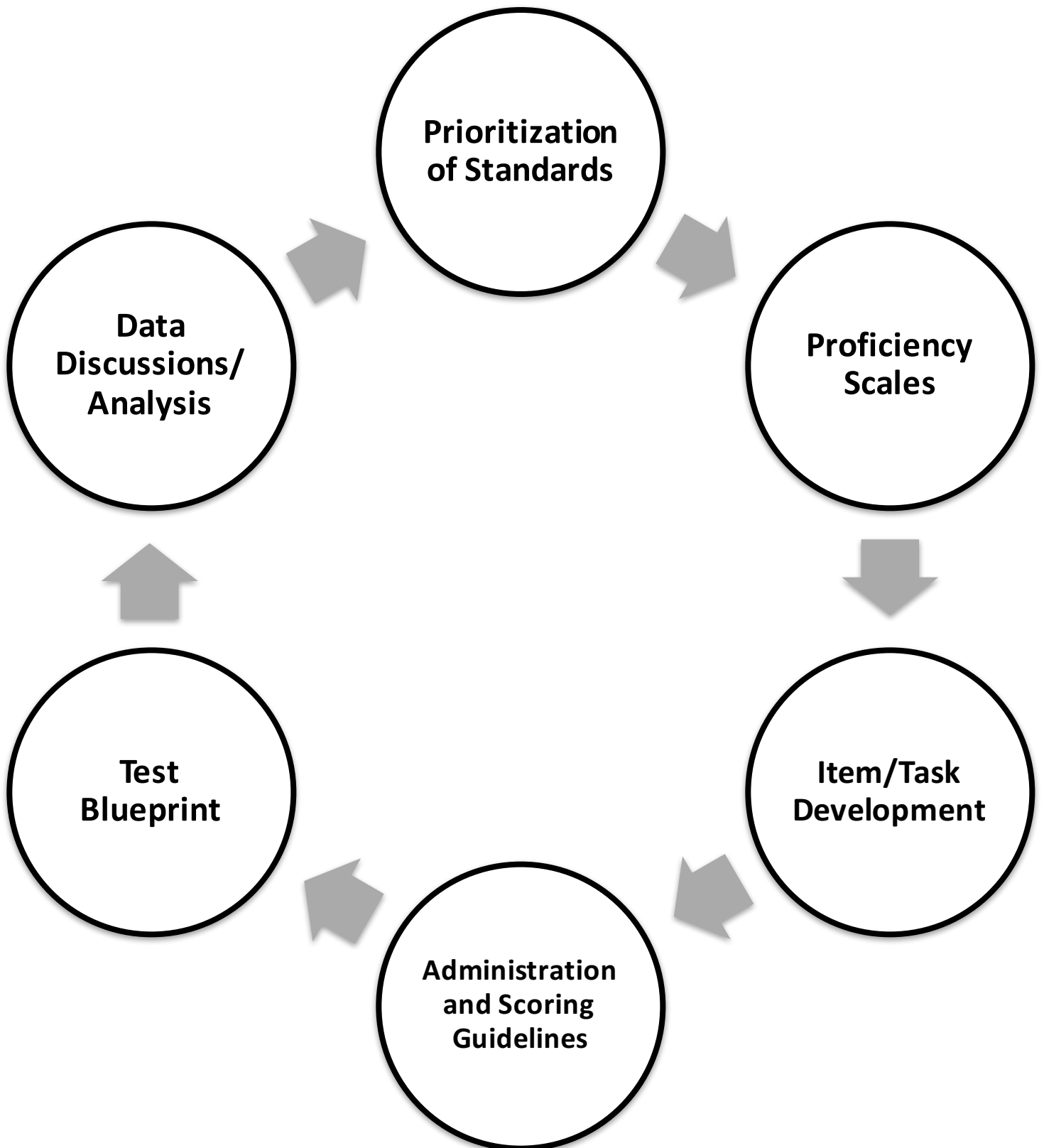(f)  Some but not all of the plants would die because the insects and birds help the plans reproduce asexually.

## Score 4.0

Explain the differences between inherited traits and those that are caused by environment. Then list some traits you have that are inherited and some that are caused by environment. Finally, explain why you think your behavior is affected more by your inherited traits or your environmental traits.

## Keeping Track of my Learning

Name _I. H._

Learning Goal _Understand and use decimals and percents._

My score at the beginning _2–_    My Goal is to be at _3_ by _Nov. 30th_

Specific things I am going to do to improve: _Work 15 min. three times a week._

LEARNING GOAL _Decimals and Percents._



a _Oct. 5th_        f _Nov 26_
b _Oct. 12_         g
c _Oct. 20_         h
d _Oct. 30_         i
e _Nov. 12_         j

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## Tracking My Own Learning

Student Name _I. H._          Date _____

Learning Goal

_Math: Understand and use decimals and percents._

My score at beginning: _2–_    My goal: _3_ by _Nov 30th_



a _Oct 5 (2)_
b _Oct. 12 (2)_
c _Oct 19 (2)_
d _Oct 20 (2)_
e _Oct 22 (2+)_
f _Oct 27 (3)!_
g
h

4 _I make no mistakes; I understand completely._

3 _I make no major mistakes; maybe little errors but understand what is important._

2 _I make some major mistakes; my errors show I don't understand some important ideas._

1 _I make many major mistakes; I just don't understand yet._

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Name: _____

### AP English Literature
### Goal Tracking Sheet

**Essential Learning: 1. AP Literary Analysis:** The learner is able to analyze, interpret and evaluate texts in a variety of genres, in a variety of literary periods, 16th to the 21st century.

Current Score: (out of 4) _1.5_     Goal: _3_     by _Dec, 2013_ (date)

In order to accomplish the above goal, I will do the following:

_-Class discussion        - extra help_
_-Home work             - Study groups_
_-In-class essays_

Goal Tracking:



| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |

A: _FORMATIVE – 2008 MC_    J: _____    S: _____
B: _2012 MC_                K: _____    T: _____
C: _____            L: _____    U: _____
D: _____            M: _____    V: _____
E: _____            N: _____    W: _____
F: _____            O: _____    X: _____
G: _____            P: _____    Y: _____
H: _____            Q: _____    Z: _____
I: _____            R: _____

# Common Assessment Development Cycle



Prioritization of Standards

Proficiency Scales

Item/Task Development

Administration and Scoring Guidelines

Test Blueprint

Data Discussions/ Analysis

# The Case for Common Formative Assessments

By Rick and Becky DuFour and Robert Eaker

We received a question from a principal of a high-performing middle school who wrote: "Although we have made significant growth in many of the core components of a professional learning community we continue to struggle with the perception of teacher autonomy as a result of attempting to create common assessments. A number of teachers continue to believe that common assessments restricts their ability to differentiate instruction from their colleagues…. our staff still remains hesitant to fully engage in meaningful collaboration which would result in creating common assessments and sharing instructional practices.

We have offered our own arguments as to why assessments created by a team of teachers are superior to the formal assessments developed by a teacher working in isolation.

**1. Team-developed common assessments are more efficient.**

If five teachers teaching the same course or grade level are responsible for ensuring all students acquire the same knowledge and skills, it make sense those teachers would work together to determine the best methods to assess student learning. A team of teachers could divide responsibilities for creating a unit and developing assessments. Teachers working in isolation replicate and duplicate effort. They work hard, but they do not work smart.

**2. Team-developed common assessments are more equitable.**

The use of common assessments increases the likelihood that students will have access to the same curriculum, acquire the same essential knowledge and skills, take assessments of the same rigor, and have their work judged according to the same criteria. We have witnessed repeated examples of teachers who were *emphatic* about the need for consistency, equity, and fairness in terms of how they were dealt with as adults, being completely unconcerned about the inconsistency, inequity, and lack of fairness that characterized the assessment of student learning in their school. If every teacher has license to assess whatever and however he or she determines, according to criteria unique to and often known only by that teacher, schools will never be institutions that truly model a commitment to equity.

**3. Team-developed common formative assessments are more effective in monitoring and improving student learning.**

We have cited several researchers who have concluded that team-developed common formative assessments are one of the most powerful strategies available to educators for improving student achievement. We know of no research concluding the formal assessments created by individual teachers working in isolation advance student learning.

**4. Team-developed common formative assessments can *inform and improve* the practice of both individual teachers and teams of teachers.**

Teachers do not suffer from a lack of data. Virtually every time a teacher gives an assessment of any kind, the teacher is able to generate data – mean, mode, median, standard deviation, percentage failing, percentage passing, and so on. As Robert Waterman (1987) advised, however, data alone do not inform practice. Data cannot help educators identify the strengths and weaknesses of their strategies. Data inform only when they are presented in context, which almost always requires *a basis of comparison*.

Most educators can teach an entire career and not know if they teach a particular concept more or less effectively than the teacher next door because the assessments they generate for their isolated classrooms never provide them with a basis of comparison. Most educators can assess their students year after year, get consistently low results in a particular area, and not be certain if those results reflect his or her teaching strategies, a weakness in the curriculum, a failure on the part of teachers in earlier grades to ensure students develop a prerequisite skill, or any other cause. In short, most educators operate within the confines of data, which means they operate in the dark. But in a PLC, collaborative teams create a series of *common* assessments, and therefore every teacher receives ongoing feedback regarding the proficiency of his or her students, in achieving a standard the team has agreed is essential, on an assessment the team has agreed represents a valid way to assesses what members intend for all students to learn, *in comparison to other students attempting to achieve the same standard.* That basis of comparison transforms data into information.

Furthermore, as Richard Elmore (2006) wrote, "teachers have to feel that there is some compelling reason for them to practice differently, with the best direct evidence being that students learn better" (p. 38). When teachers are presented with clear evidence their students are not becoming proficient in skills they agreed were essential, as measured on an assessment they helped to create, and that similar students taught by their colleagues have demonstrated proficiency on the same assessment, they are open to exploring new practices. When the performance of their students consistently prevents their team from achieving its goals, they are typically willing to address the problem. In fact, we consider team-developed common formative assessments one of the most powerful motivators for stimulating teachers to consider changes in their practice.

**5. Team-developed common formative assessments can build the capacity of the team to achieve at higher levels.**

As Wiliam and Thompson (2007) found, the conversations surrounding the creation of common formative assessments are a powerful tool for professional development. When schools ensure every teacher has been engaged in a process to clarify what students are to learn and how their learning will be assessed, they promote the clarity essential to effective teaching. When teachers have access to each other's ideas, methods, and materials they can expand their repertoire of skills. When a team discovers the current curriculum and their existing instructional strategies are ineffective in helping students acquire essential skills, its members are able to pursue the most powerful professional

development because it is specific, job-embedded and relevant to the context of their content, their strategies, their team, and their students.

**6. Team-developed common formative assessments are essential to systematic interventions when students do not learn.**

We argue that if educators were truly committed to high levels of learning for all students, they would not leave the question, "what happens when some students do learn" to chance. They would, instead, work together to create systems of intervention to ensure any student who struggles receives additional time and support for learning in a timely and directive way. Team-developed common formative assessments are a critical element of that system of intervention.

Not every assessment should be a common assessment. There is still a place for individual teachers to create their own formal assessments. Team-developed common assessments will never eliminate the need for individual teachers to monitor student learning each day through a wide variety of strategies that check for understanding. But if schools are ever to take full advantage of the power of assessment to impact student learning in a positive way, they must include common formative assessments in their arsenal. Professional learning communities will make team-developed common formative assessments a cornerstone of their work.

| Example School District Common Assessment Results | |
| --- | --- |
| *District Results* | |
| Learning Goal | Percent Proficient |
| #1: | 72% |
| #2: | 82% |
| #3: | 60% |
| *Building Results* | |
| Applewood | Percent Proficient |
| #1: | 70% |
| #2: | 85% |
| #3: | 50% |
| Gateway | Percent Proficient |
| #1: | 60% |
| #2: | 55% |
| #3: | 40% |
| Liberty | Percent Proficient |
| #1: | 85% |
| #2: | 90% |
| #3: | 70% |
| Reedy Creek | Percent Proficient |
| #1: | 76% |
| #2: | 70% |
| #3: | 65% |

| Applewood Elementary School Common Assessment Results | |
| --- | --- |
| *District Results* | |
| Learning Goal | Percent Proficient |
| #1: | 72% |
| #2: | 82% |
| #3: | 60% |
| *Classroom Results* | |
| Teacher A | Percent Proficient |
| #1: | 70% |
| #2: | 90% |
| #3: | 60% |
| Teacher B | Percent Proficient |
| #1: | 75% |
| #2: | 88% |
| #3: | 52% |
| Teacher C | Percent Proficient |
| #1: | 65% |
| #2: | 85% |
| #3: | 50% |
| Teacher D | Percent Proficient |
| #1: | 72% |
| #2: | 75% |
| #3: | 45% |

## Applewood Elementary School
## Common Assessment Results – Teacher A

| | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Student 1 | Y | Y | N | Y | Y | N | N | N | N |
| Student 2 | Y | Y | Y | Y | Y | Y | Y | N | Y |
| Student 3 | Y | Y | Y | Y | N | Y | Y | N | Y |
| Student 4 | N | N | N | N | Y | Y | N | N | N |
| Student 5 | N | Y | Y | Y | N | Y | Y | Y | Y |
| Student 6 | Y | N | Y | Y | Y | Y | N | Y | N |
| Student 7 | Y | Y | N | Y | Y | N | Y | N | Y |
| Student 8 | N | Y | Y | N | Y | Y | Y | Y | Y |
| Student 9 | Y | N | N | Y | Y | Y | Y | N | N |
| Student 10 | N | Y | Y | Y | N | Y | Y | Y | Y |
| Student 11 | Y | N | Y | Y | Y | Y | Y | N | Y |
| Student 12 | Y | Y | Y | Y | Y | Y | N | Y | N |
| Student 13 | N | Y | Y | N | Y | Y | Y | Y | N |
| Student 14 | Y | Y | Y | Y | Y | Y | Y | N | Y |
| Student 15 | N | N | N | Y | Y | Y | Y | N | Y |
| Student 16 | N | Y | Y | Y | N | Y | N | N | N |
| Student 17 | Y | Y | Y | Y | N | Y | Y | N | Y |
| Student 18 | N | N | Y | Y | Y | Y | Y | N | N |
| Student 19 | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Student 20 | Y | Y | Y | Y | Y | Y | Y | Y | N |
| Student 21 | N | Y | Y | Y | Y | Y | N | N | N |
| **PERCENT CORRECT** | **57%** | **71%** | **76%** | **85%** | **76%** | **90%** | **71%** | **38%** | **52%** |
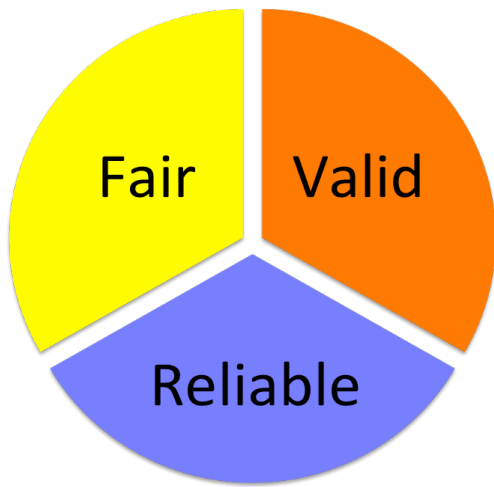
# Quality Criteria for Classroom Assessments

**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.*

## Assessment Review Checklist

| Review Criteria | Yes | No | Item #s Needing Revision | Comments |
|---|---|---|---|---|
| The assessment measures the knowledge and skills described in the standard. | | | | |
| The assessment is free from bias. | | | | |
| The assessment is written at the developmentally appropriate level and correct readability level. | | | | |
| Assessment items follow guidelines and are clearly written. | | | | |
| The Answer Key is accurate and matches the assessment. | | | | |
| EVERY item has an answer. "Answers may vary" is typically not acceptable. | | | | |
| A rubric or checklist is provided, if needed. | | | | |
| Directions are present, and are clear and concise. | | | | |
| The "Materials Needed" list is accurate and complete. | | | | |

# Four "W"s Text Protocol

Adapted from *Four "A"s Text Protocol* from Judith Gray, Seattle, WA 2005

1. Read the text silently, highlighting it and writing notes in the margin in answer to the following four questions:
   - What **Wisdom** is shared in the text?
   - What content do you **Wrestle** with in the text?
   - What in the text causes you to **Wonder**?
   - What in the text can you **Weave** into your work?

2. Upon cue, have each person identify one piece of **wisdom** in the text, citing the text as evidence.

3. Move through the remaining three questions, making sure each person's voice is heard.

4. As a whole group, respond to the question, "What implications does the article present to us as we use assessments in our classrooms?"

# Three Rules Help Manage Assessment Data

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness..."
-Charles Dickens, *A Tale of Two Cities*

We live in the Information Age, when never before has so much data on student learning been so readily available. It is the best of times...

And yet, to harried principals struggling to make sense of the mountains of assessment data, the Information Age may feel like the worst of times...

Mining those data mountains for information that teachers can use to improve student learning is a daily challenge for principals. The problem is not a lack of data, but rather managing all the data in a way that is meaningful to teachers. I am not aware of any guidelines about how to process all the information—that is, how to decide exactly *what* information is needed or *who* needs the information to make decisions; however, I did encounter "rules" for using data during a conversation with Damon Lopez, former principal of Los Penasquitos Elementary School in San Diego.

Lopez believes that in order for teachers to maximize the impact of data gleaned from assessments, principals should honor three rules and ensure that data is 1) easily accessible, 2) purposefully arranged, and 3) publicly discussed. In those schools where "making meaning" of assessment data is a powerful experience, principals take responsibility for creating the necessary structures associated

with the first two rules and insist that teachers commit to the last. Rather than working individually to make meaning of assessment data, the most successful principals have discovered it is far more productive to create the conditions under which *teams of teachers* can make meaning of the data.

**Easy Access**
For data to add value to our efforts to improve student learning, teachers' access to the data must be timely. In addition to figuring out *who* needs to know *what* and *when*, the key question for principals to ask is, "What is the most efficient way to get assessment data back to teachers?"

As Kim Marshall, publisher of the highly regarded *Marshall Memo,* suggests, "When turnaround time after interim assessments is long, the results are stale and outdated by the time teachers sit down and discuss them." Data loses its impact whenever it takes more than 48 hours to return the results of a common assessment to teachers.

Outdated information makes it more difficult for teachers to be effective in adjusting instruction, identifying students who need more time and support or coordinating remedial or

enrichment programs among teachers on the team. To improve the accessibility of data, principals need to shorten the turnaround time for reporting data.

*During the course of a career spanning more than 30 years, **Dr. Tom W. Many** has served as a classroom teacher, principal and superintendent—all at the elementary level. With a passion for promoting the development of high performing schools, his district was recently recognized as one of the highest achieving - lowest spending elementary school districts in Illinois.*

### Purposeful Arrangement

The second rule for maximizing the impact of data calls for assessment data to be purposefully arranged, that is, for the assessment data delivered to teacher teams to be presented in a format that is complete, accurate, and straight-forward.

Data should be organized in simple—not simplistic—ways. There are many software packages that quickly, almost instantaneously, provide assessment results in tables, charts, or graphs and make it easy for teachers to digest the results of interim assessments. Author D. M. Griffith observed, "If the message the information is trying to communicate fails to get through to the reader, [the information] is useless. It's better to be simple and understood than complex and ignored." What *is* important is that the data is returned to teachers in a format conducive to further discussion.

From time to time, teachers may create their own tables or graphs or request additional formats for organizing assessment results, but the initial data should be received in an arrangement that allows teachers to focus on the results—not the presentation format.

### Public Discussion

While principals can address the logistics of making data easily accessible and arranging it purposefully, teacher teams are uniquely equipped to meaningfully engage in the public discussion of assessment data. Indeed, teachers and principals need to embrace the critical importance of publicly discussing the results of assessments. Each time they discuss an assessment together, teachers benefit from the collective wisdom of their team. Not only do they gain deeper insight into how their students are learning, but also reviewing results as a team has the added benefits of allowing teachers to deepen their content knowledge and to sharpen their pedagogy.

To paraphrase Griffith, assessment data and information on student achievement are relevant, and therefore needed, only if they are used to make a decision. In fact, nothing justifies the giving of an interim assessment—and with it the associated loss of instructional time—unless teachers discuss the results of the assessment and adjust their instruction accordingly.

### The Age of Wisdom or Foolishness?

To be sure, the ready availability and discerning management of assessment data can go a long way in contributing to making this the Age of Wisdom for educators seeking to improve students' learning. Principals who are successful focus their energies on ensuring that the data is 1) easily accessible and 2) purposefully arranged and insist that teachers spend their time 3) publicly discussing the results to ensure that all students learn. ■

### References

Marshall, K. (2008, September). "Interim Assessments: A User's Guide." *Phi Delta Kappan*. pp.64-68.

Griffiths, D. M. (2006, March). "Are You Drowning in a Sea of Information? Managing Information: A Practical Guide." Available at www.managing-information.org.uk.

# Assessment Item Types and Levels of Knowledge

| Types of Assessment Items | Levels of Knowledge | | |
|---|---|---|---|
| | Score 2.0 (simple Content) | Score 3.0 (at the level of the standard) | Score 4.0 (complex content) |
| | Basic knowledge and skills that students have learned during the instructional unit— fairly easy | More complex knowledge and skills that students have learned during the instructional unit— doable if students participated in classroom instructional lessons and activities | Inferences or applications that go beyond what they were explicitly taught— challenging |
| Selected Response Items | Short items with a small number of correct responses; options are often included (for example, multiple choice, matching, ordering, true/false, fill-in-the-blank, multiple response [asks for two or more correct answers]) | | |
| Constructed Response | Items that require the construction of one to a few sentences (scoring guidance required) | | |
| Essay/Extended Response | | Longer written response of several paragraphs; covers more information and often requires students to connect, analyze, or apply information; usually requires students to use multiple levels of knowledge (scoring guidance required) | |
| Personal Communication | Spoken version of selected response items or short written responses; longer spoken items such as question-and-answer sessions or structured discussion (scoring guidance required) | | |
| Performance Task | | Requires students to demonstrate that they have mastered specific skills and competencies by performing or producing something (scoring guidance required) | |

# 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:



Teacher-Made Assessments

How to Connect Curriculum, Instruction, AND Student Learning

Christopher R. Gareis
Leslie W. Grant
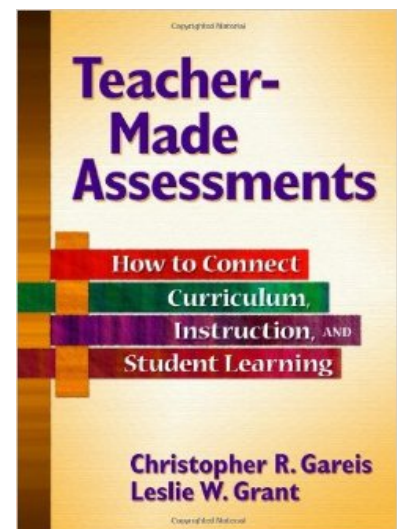
**Webb's Depth of Knowledge Framework Level Definitions**

## DOK Level 1: Recall and Reproduction

- Basic recall of concepts, definitions, facts, and processes
- Answering a Level 1 question can involve following a simple, well-known procedure or formula
- Simple skills and abilities or recall one right answer

## DOK Level 2: Basic Application of Skills and Concepts

- Includes the engagement of some mental processing beyond recalling or reproducing a response
- Items require students to make some decisions as to how to approach the question or problem – acting on the information
- These actions imply more than one mental or cognitive process/step, but there is still one right answer

## DOK Level 3: Strategic Thinking

- Requires deep understanding as exhibited through planning or sequencing of steps
- Requires some decision making and justification
- Assessment items have more than one possible answer and are abstract, complex, or non-routine

## DOK Level 4: Extended Thinking

- Requires high cognitive demand and is very complex
- An investigation or application that requires time to research, think or process multiple conditions of the problem
- Non-routine manipulations or connections across disciplines/content areas/multiple sources

# DEPTH OF KNOWLEDGE EXAMPLES

| | |
|---|---|
| **DOK 1** | o Locate or recall facts found in text.<br>o Apply a well-known formula.<br>o Orally read words in connected text with fluency and accuracy.<br>o State an opinion without support.<br>o Name the notes of the C Major scale.<br>o Represent math relationships in words, pictures, or symbols.<br>o Perform a simple science process or a set of procedures. |
| **DOK 2** | o Identify and summarize the major events, problem, solution, conflicts in literary text.<br>o Explain the cause-effect of historical events.<br>o Retrieve information from a table, graph, or figure and use it to solve a problem requiring multiple steps.<br>o Develop a brief text that may be limited to one paragraph.<br>o Make a puzzle or game about the topic.<br>o Create a questionnaire or survey to answer a question.<br>o Write a diary/blog entry for a character or historical figure. |
| **DOK 3** | o Compare consumer actions and analyze how these actions impact the environment.<br>o Analyze or evaluate the effectiveness of literary elements.<br>o Solve a multi-step problem and provide support with a mathematical explanation that justifies the answer.<br>o Write a letter to the editor after evaluating a product.<br>o Use reasoning and evidence to generate criteria for making and supporting an argument of judgment.<br>o Prepare a speech to support your perspective about global climate change.<br>o Make a booklet or brochure about a topic or an organization. |
| **DOK 4** | o Gather, analyze, organize, and synthesize information from multiple sources to draft a reasoned report.<br>o Analyze and explain multiple perspectives or issues with or across time periods, events, or cultures.<br>o Conduct a project that specifies a problem, identify solution paths, solve the problem, and report the results.<br>o Write and produce an original play.<br>o Critique the historical impact of policy, writings, and discoveries.<br>o Illustrate how multiple themes (historical, geographic, social) may be interrelated.<br>o Relate mathematical or scientific concepts to other content areas, other domains, or other concepts. |

# Unobtrusive Assessment
## Quick Checks for Understanding

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|---|---|
| ***3-2-1 Strategy*** | Students complete a 3-2-1 sheet before exiting the room. 3 things I've learned, 2 connections I made, 1 thing I still wonder or a question I still have. |
| ***3 Minute Pause*** | The 3-minute pause provides a chance for students to stop, reflect on the concepts and ideas that have just been introduced, make connections to prior knowledge or experience, and seek clarification.<br>○ I changed my attitude about…<br>○ I became more aware of…<br>○ I was surprised by…<br>○ I felt…<br>○ I related to…<br>○ I empathized with…by… |
| ***ABC Summaries*** | Each student in class is assigned a different letter of the alphabet and they must select a word starting with that letter that is related to the topic being studied. |
| ***All Writes*** | Pose a question to a group or class of students and pause for 30-60 seconds. Ask students to write an answer to the question. Students may use scrap paper; wipe off boards, or thinking cards. Students can share responses with each other or as a whole group by showing responses. |
| ***Analogy Prompt*** | Present students with an analogy prompt: (A certain concept, principle, or process) is like _____because _____. |
| ***Ballot Box Voting*** | Students are given a sheet of paper on which they answer (vote) their question(s). They then place their responses in the "ballot box" on the way out the door.<br>Variation:  Students have small "ballot box" square on their desk and when a question is asked, they place a response (either from a selection of possible answers (i.e., A, B, C, D) into the ballot box as their "vote". |
| ***Check by Chimes*** | Use a recording (recorded chimes or beeps) at random intervals during a lesson. Have students respond to a question/prompt and record their answer. Collect the responses at the end of the lesson. |
| ***Chips In*** | Students are given a pre-determined number of chips. When a student wants to participate, he/she puts in a chip (in a container/on table). When the student is out of chips, he/she is out of turns (unless the teacher gives a chip back). The strategy is meant to encourage equal participation among learners. |
| ***Choral Response*** | In response to a cue, all students respond verbally at the same time.  The response can be either to answer a question or to repeat something the teacher has said. |
| ***Clothesline Sequencing*** <br>***(Tilton, Inclusion, pg. 126)*** | For review that involves students understanding sequence, this activity can work great. String a clothesline in the classroom and have events written on laminated papers. Students "string" the events in chronological order.  This activity can also be used while reading an in-class novel.  As important events occur, students write them down and clip them on the clothesline. By the time they finish the book, all major events are listed in order! |
| ***Cognitive Self-Management*** | At the end of a lesson, students respond to the following questions in a daily journal log:<br>-Was this a productive lesson for me?<br>-What did I learn?<br>-What did I do to help myself learn?<br>-What interfered with my learning? |

| | -What will I do differently next time to help me learn better? |
|---|---|
| **Cue Card Review** | Students are given a 3x5 card with check for knowledge questions. They may respond to questions individually or as a group. |
| **Debriefing** | This form of reflection is intended to be used immediately following an activity. |
| **Dueling Charts** | 1. Select a topic students have been studying (i.e., The Constitution) <br> 2. Write the topic across two charts. <br> 3. Divide students into two teams. <br> 4. Each team lines up behind a chart. <br> 5. On signal, a student from each team goes to the chart and writes a phrase pertaining to the topic. The phrase must start with the 1st letter of the word (i.e., "C" (for constitution --- Chosen representatives or Citizen's rights are outlined). Then, the next letter is "o" and then "n," etc. <br> 6. After the first student finishes, the next student comes to the chart, etc. <br> 7. When both teams are done the charts are compared and shared. |
| **Evidence Bag** | Students are given small evidence bag graphics. Their ticket out the door is to list at least two important ideas they have learned from the lesson and specific EVIDENCE regarding this learning. |
| **Exit Card** | Exit cards are written responses to questions posed at the end of a class or learning activity or at the end of a day. |
| **Find Someone Who (Kagan)** | Students circulate to find others who can contribute to answers on their worksheet. They give answers and receive answers for purposes of review and showing gaps in their learning. |
| **Gallery Walk** | Students rotate around the room stopping at posted posed questions, or pieces of learning, quotes, concepts, etc. As they stop at each center, students have discussions with each other, write responses on poster board or sticky notes or they pose questions that they have as a result of viewing the gallery walk material. |
| **Get The Picture** | Students quickly draw pictures that show what they know. They then explain their drawings to a partner. |
| **Give One, Get One** | Students write their name on a piece of paper and list 3-5 ideas about the assigned topic. Students then interact with their classmates one at a time. Students exchange learning from each other and add to their list. Students can ask questions about new or confusing ideas. |
| **Give Yourself Five** | At random intervals have students give themselves a predetermined number of points if they are engaged in the learning and can list important learning. Students can even record learning on a blank 5-finger graphic of their own hand. Students can share responses with a seat partner or whole group. |
| **Graphic Organizers** | Have students complete graphic organizers to show that they understand the material taught in class |
| **Hand Signals** | Ask students to display a designated hand signal to indicate their understanding of a specific concept, principal, or process: I understand _____ and can explain it (i.e., thumbs up). I do not yet understand _____ (i.e., thumbs down). I'm not completely sure about _____ (i.e. wave hand). |
| **I Have, Who Has (Kagan)** | Review questions and responses are handed out to students. The #1 card begins the review by reading their question (i.e., Who has the definition of literal language?). Then, the student who has the answer to this question responds, (i.e., I have what are words that mean exactly what you say?) and then reads the question also contained on their card (i.e., Who has the definition for figurative language?) and the review continues until all cards are used. |
| **Idea Spinner** | The teacher creates a spinner marked with four quadrants and labeled "Predict, Explain, Summarize, Evaluate." After new material is presented, the teacher spins the |

| | spinner and asks students to answer a question based on the location of the spinner. |
|---|---|
| **Index Card Summaries and Questions** | Distribute index cards and ask students to write on both sides with these instructions: (Side 1) Based on our study of (unit/topic), list a big idea that you understand and word it as a summary statement. (Side 2) Identify something about (unit/topic) that you do not yet fully understand and word it as a statement or question. |
| **Inside/Outside Circle (Kagan)** | Students in concentric circles rotate to face a partner to answer the teacher's questions or those of a partner (via cue cards). |
| **Instruct, Insight, Internalize** | Teacher provides instruction to the students for 5-7 minutes, then says: Take a minute to think and record the key ideas or points you've heard so far or any question you have. Teacher then continues instruction to the next stopping point and repeats the above directions. When instruction is complete, students pair up and share their insights, key ideas, questions, and summaries of what they heard. |
| **Jigsaw** | Students read different passages from the same text or selection. After reading the passage, they take on the role of an expert for their specified piece of text. The "experts" then share the information from their reading with a specific rotating group or the entire class. |
| **Journal Entries (Double Journal Entries)** | Students may respond to check for knowledge questions in their journals before exiting the classroom. The teacher reviews the entry to see if the student has gained an understanding of the topic, lesson or concept that was taught. |
| **K-W-L** | Use a K-W-L chart as a preview activity. Prior to instruction, students complete the "K" and "W" columns. When instruction is complete, students complete the "L" column. Collect the organizers and checking for understanding. |
| **Misconception Check** | Present students with common or predictable misconceptions about a designated concept, principle, or process. Ask them whether they agree or disagree and to explain why. |
| **MNEMONICS** | Create mnemonic devices to help students review materials (i.e., HOMES helps students remember the great lakes) |
| **Numbered Heads Together (Kagan)** | Each student is assigned a number. Members of a group work together to agree on an answer. The teacher randomly selects one number. The student with that number answers for the group. |
| **Observation** | Walk around the classroom and observe students as they work to check for learning. Use anecdotal comments to record student performance. |
| **One Minute Essay** | Give students one minute to respond to a prompt or question. Have students read their responses to a partner and then collect the responses at the end of the class period. |
| **One Sentence Summary** | Students are asked to write a summary sentence that captures an important idea related to the content covered. |
| **One Word Summary** | Select (or invent) one word that best summarizes a topic. |
| **Oral Questioning** | ❖ How is _____similar to/different from _____?<br>❖ What are the characteristics/parts of _____?<br>❖ In what other ways might we show/illustrate _____?<br>❖ What is the big idea, key concept, or moral in _____?<br>❖ How does _____ relate to _____?<br>❖ What ideas/details can you add to _____?<br>❖ Give an example of _____.<br>❖ What is wrong with _____?<br>❖ What might you infer from _____?<br>❖ What conclusions might be drawn from _____? |

| | ❖ What questions are we trying to answer?<br>❖ What problem are we trying to solve?<br>❖ What might happen if …<br>❖ What criteria would you use to judge/evaluate _____?<br>❖ What evidence supports _____?<br>❖ How might we prove/confirm _____?<br>❖ How might this be viewed from the perspective of _____?<br>❖ What approach/strategy could you use to _____? |
|---|---|
| *Outcome Sentences* | Use statement starters to elicit student responses at the end of the lesson:<br>-Because of this lesson, I learned…<br>-I was surprised…<br>-I relearned…<br>-I am feeling positive about…<br>-I need clarification on… |
| *Pairs Check (Kagan)* | Students work in pairs, each answering a question (or working out a problem) and receiving praise and coaching from their partner. Students can be labeled A and B so they may rotate in sharing their responses. |
| *Peer Review* | One student observes another student's performance, compares and contrasts performance against teacher's criteria/guidelines, and then communicates results through verbal, non-verbal, or written feedback. |
| *Portfolio Check* | Check the progress of a student's portfolio (or writing folder).  A portfolio is a purposeful collection of significant work, carefully selected, dated, and presented to tell the story of a student's achievement or growth in well-defined areas of performance, such as reading, writing, math, etc. A portfolio usually includes personal reflections where the student explains why each piece was chosen and what it shows about his/her growing skills and abilities. |
| *Quick Writes* | Have students quickly write a response to activate background knowledge, clarify issues, facilitate making connections, and allow for reflection time.  Students write for a short, specific amount of time, perhaps several minutes, about a designated topic or question. |
| *Red Light Strategy* | Students are given three laminated squares of paper (red, yellow, and green). As review takes place, students hold up red if they don't know the answer, yellow if they are unsure, and green if they are certain of the answers. |
| *Reflection* | Students engage in the thoughtful examination of the learning process in order to plan, monitor, assess, and improve their own performance and their own thinking/learning. |
| *Roundtable (Kagan)* | Students in teams take turns asking questions and recording their responses. |
| *Snowball Fight* | Students take pieces of papers containing questions and crumple them into a snowball shape.  When the teacher says, "Snowball fight", students throw the "snowballs" and then pick up a new snowball (new question) somewhere in the room. Students respond to the question and then wait for the next snowball fight. |
| *Soccer Ball Review (Tilton, 224)* | A soccer ball is numbered on each of its octagonal sections. When tossed in the classroom, the student who catches it yells out the number that their right thumb lands on when they caught the ball. This is the # of the review question that is read to the student by the teacher (or another student).  The student responds and then passes the ball to the next student who continues the review process. |
| *Socratic Seminar* | Students engage in a focused discussion in which they ask questions of each other on a selected topic; questions initiate the conversation, which continues with a series of responses and further questions.  Students build the skill of formulating questions and addressing issues. |

| | |
|---|---|
| *Spectrum* | Use a spectrum when asking for student opinion on a topic or question. Place a line on the chalkboard or masking tape on the floor. Label one end strongly agree and the other end strongly disagree. Students line up according to their opinion and then support their opinion (other labels: most/least important, greatest/least effective). |
| *Sticky Note Review* | Students complete a "sticky note" response before they can exit the room. All sticky notes are displayed together in an area where the teacher can assess student learning. |
| *Student Conference* | The teacher has one-on-one conversations with students to check their level of understanding. |
| *Tally* | Use a class roster to help monitor who you call on and how often. You may also have students chart (at their desks) the number of times they respond. This encourages those students who are less apt to respond to self-monitor their behavior. |
| *The Envelope, Please* | When students enter the room they are handed a sealed envelope containing pertinent review questions for the end of the period. Before they can exit at the end of the period, they open the envelope and respond to the question contained within. |
| *Think-Pair-Share (Kagan)* | Students think individually about their response to a question, discuss answers in pairs, and then share their own or partner's answer with the rest of the class. |
| *Thumbs Up or Thumbs Down* | Students respond to check for knowledge questions by responding with a "thumbs up" if they know the answer and a "thumbs down" if they do not know or are unsure. |
| *Ticket Out the Door* | Students respond to check for knowledge questions via a piece of paper that they hand to the teacher before exiting the room |
| *Timed Pair Share (Kagan)* | Students share with a partner for a predetermined amount of time and then the partner shares with them for the same amount of time. |
| *Tongue Depressor Responses* | Tongue depressors are marked "T" on one side and "F" on the other. Students use these to indicate responses to teacher-provided statements. |
| *Toss It (Tilton, 203)* | Students play "basketball" while addressing review questions. Divide the class into two teams. The teacher acts as moderator. Questions can be given different point values. If a team answers a response correctly they get to "toss it" (ball, paper, etc.) for points. |
| *Turn to Your Partner* | Teacher gives directions to students. Students formulate individual response, and then turn to a partner to share their answers. The teacher calls on several random pairs to share their answers with the class. |
| *Twelve Word Summary* | In twelve words or less, summarize the most important aspects of today's lesson. |
| *Wipe Off Boards (Think, Hide, Show)* | Students respond to check for knowledge questions, hide their responses and then show them when asked. |
| *ZAP! (Tilton, 209)* | On each table is a container (lunch bag, coffee can, box, etc.) to hold what the group needs to review or reinforce. Craft sticks, tongue depressors, note cards, or strips of paper are used for the questions or terms to be defined—also a card with ZAP is included. Each player takes a turn by drawing one item and responding to it. If they can respond they keep the card and gain a point. If they cannot answer the question, it goes back into the bag. If a student draws a ZAP card, they lose all points and return their cards to the bag. |

# Student-Generated Assessments

Student-generated assessments are probably the most underutilized form of classroom assessment. As the name implies, a defining feature of student-generated assessments is that students generate ideas about the manner in which they will demonstrate their current status on a given topic. To do so, they might use any of the types of obtrusive assessments discussed in the previous text. For example, one student might say that she will provide an oral answer to any of the twenty questions in the back of chapter 3 of the science textbook to demonstrate her knowledge of the topic of habits. Another student might propose that he design and explain a model of the cell membrane to demonstrate his knowledge of the topic. The following examples depict student-generated assessments that might be employed in various subject areas.

Language Arts: To demonstrate her understanding of a book read in class, a fifth-grade student proposes that she write a paper describing the events of the story and how one event caused another, leading to the story's ultimate resolution.

Mathematics: To demonstrate his understanding of geometric angles, a fourth-grade student proposes that he measure and draw acute, obtuse, and right angles as well as complementary and supplementary angles in the presence of the teacher.

Science: To show that she understands the solar system, an eighth grade student proposes she draw a diagram of the solar system and write a paper describing the major features of each different planet and its relationship to the other planets in the system.

Social Studies: To demonstrate his understanding of the causes of World War II, an eighth grade student proposes that he write a paper on how the war might have been avoided if the Treaty of Versailles had not been so punitive to Germany.

Physical Education: To show that she can do a forward and a backward roll, a kindergarten student offers to demonstrate both movements for the teacher.

Art: To show his skill at shading, a sixth-grade student offers to draw and shade an object in a house and bring the drawing to class.

Technology: To show that she understand how email works, a first grade student offers to send the teacher an email from the school computer lab and bring a printed copy of the teacher's reply to class.

## October Choice Board (Algebra)

Directions: You must do 2 assignments from this page. Each is worth 50 points and together, add up to a test grade for the month. Answer them on a separate sheet of paper showing all work and attach the sheet to both assignments.

| Create a table showing the first ten digits of the following graphs:<br>1. $y = 3x - 2$<br>2. $y = -5x + 8$<br>3. $y = 2x + 3$<br>4. $y = -6x - 9$<br>5. $y = 7x$ | Explain how to put the following in the calculator:<br>$X + 7 = 12 + 3x - 7x$<br>1. Give directions<br>2. Explain why this works | Define:<br>• compound inequality<br>• inequality<br>• intersection<br>• union<br>• equation<br>• precision<br>• accuracy<br>• formula<br>• unit rate<br>• scale factor |
| --- | --- | --- |
| Describe the difference between >, <, ≥, ≤.<br>Show a one-step and two-step example of each. Also explain how to set up a number line (open and closed circle, where to shade etc.) | Find the 5 hardest problems in Chapter 1.<br>• Write them down<br>• Explain why someone might find the to be the hardest<br>• Solve/Attempt to solve | Create T-chart. Label the sides "Equations" and "Inequalities"<br>1. Give a definition of both<br>2. Find 2 examples of both (4 total)<br>3. How are the similar?<br>4. How are they different? |
| Write an equation and solve each of the following:<br>1.Alicia's brother is three years younger than twice her age. The sum of their ages is 24. How old is ALicia?<br>2.Mahya is saving to take an SAT prep course that costs $350. So far, she has saved $180, and she adds $17 to her savings each week. How many more weeks must she save to be able to afford the course?<br>3.Kameryn types 75 words per minute and is just starting to write a term paper. Joe already has 510 words written and types at a speed of 60 words per minute. For what numbers of minutes will Kameryn have more words typed than Joe? | Draw and label a graph that is:<br>• Horizontal<br>• Slanting upward<br>• Vertical<br>• Slanting downward<br>Create a story for the following:<br><br>**Graph A**<br>(Distance from Home vs Time) | Tell us about Absolute Value: What is it?<br>What is the difference between<br>$X + 3 = 10$ & $X + 3 = 10$<br><br>Find the solutions. |

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# Reading

Choose one box for each letter in "CHOICE"

| **C** | During your first read of the story, write 3 or 4 questions you had about what you read. | Write a question you had while reading. **Infer** what you think the answer could be. Use text evidence to support your answer. | Write 3 questions a character in the story would **ask**. Start: _____ would ask |
| --- | --- | --- | --- |
| **H** | Identify two words that were **new** to you in the story. Using text clues, what do you infer they mean? | How is the narrator's point of view **different** from your point of view? | Do you agree or disagree with the main character's point of view? **Why?** |
| **O** | How do the **illustrations** help you understand the mood of the story better? | How do the illustrations help you understand the **traits** of the main character better? | How do the illustrations help you understand the **setting** better? |
| **I** | What is the **lesson** or **moral** of this story? What key details from the text let you know this? | How did your thinking about the topic in the story **change** as a result of reading this? | What were the **sequence** of events in the story? |
| **C** | Identify the **feelings** of the main character. How did his or her feelings contribute to what happened in the story? | Identify the **motivations** of the main character. How did his or her motivations contribute to what happened in the story? | Identify the **traits** of the main character. How did his or her traits contribute to what happened in the story? |
| **E** | Draw your **favorite** part of the story. | Write the first three sentences of the **sequel** to this story. | If you were the author, what **change** would you make to the story? |

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Each student is responsible for completing three activities from the following choices. Your three activities must follow the rules of tic-tac-toe (i.e., three in a row).

| Using Kidspiration software, create a web of what you know about community helpers | Make a collage of the different vehicles that community helpers use. | Write a journal entry about a community helper you want to be and why.<br><br>I want to be a _____<br>Because _____<br>_____ . |
| --- | --- | --- |
| Write about your favorite part of our trip to the fire house. | Play the online game called "on the job" found at http://pbskids.org/curiousgeorge/games/on_the_job/index.html | Create a snack that relates to a community helper, e.g. A fire truck, a clown hat… |
| Go to the library and borrow three books about community helpers | During your computer time create two sentences about community helpers using Writing with Symbols. | Create a hat for a community Helper of your choice |

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# Rocks and Minerals

Show what you know by completing three of the activities below. Just like in tic-tac-toe, you can complete three in a row, column, or diagonal. Just be sure to do your best work! When you are finished, staple your three completed activities behind the choice board.

| **Anchor Chart**<br><br>Use a large piece of chart paper to create an anchor chart that will teach your classmates about rocks and minerals. Be sure to include all key points. | **Diagram of Rock Cycle**<br><br>Create a diagram of the rock cycle on a large piece of construction paper. Be sure to explain and show each portion of the rock cycle. | **Flash Cards**<br><br>Use ten index cards to create flash cards that will help you remember key terms. Write the word on one side and the definition and picture on the back of the flash card. |
| --- | --- | --- |
| **Write a Fiction Story**<br><br>Let's see how creative you can be. Write a one, or more, page fictional narrative from the perspective of a rock moving through the rock cycle. | **Write a Picture Book**<br><br>Create an informational picture book about rocks and minerals. Your book should be at least five pages long with illustrations and text on every page. | **Write an Opinion Essay**<br><br>Tells us what you think. In a one, or more, page opinion essay, explain which mineral you think is the most important and explain why. |
| **Double Bubble Map**<br><br>Complete a Double Bubble Map that compares two different rocks or two different minerals. | **Minerals Tree Map**<br><br>Complete the Minerals Tree Map. Be sure to think about the uses and characteristics of minerals. | **Rocks Circle Map**<br><br>Complete the Rock Circle Map. Inside the circle, give examples of things made from rocks. Outside of the circle, give examples of things not made from rocks. |

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**Choice Board templates: http://daretodifferentiate.wikispaces.com/Choice+Boards**

# 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**<br>**Compare Fractions**<br>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.**<br>• *For example*, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least<br>• *For example,* the student compares improper and/or mixed fractions with unlike denominators |
| **Score 3.0** | **The student:**<br>• compares two fractions with different numerators and different denominators using <, >, and =<br>• justifies the comparison |
| **Score 2.0** | **The student recognizes or recalls specific vocabulary, such as:**<br>• compare, comparison, denominator, equivalent, fraction, generate, justify, numerator<br>**The student performs basic processes, such as:**<br>• recognizes symbols, such as <, >, and =<br>• recognizes and generates equivalent fractions<br>• compares two fractions with like denominators |
| **Score 1.0** | **With help, the student demonstrates partial success at score 2.0 and score 3.0** |

# 3) ASSESSMENT

Name _____          Teacher _____

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

**Score 2.0** – Solve numbers 1-4. Write <, >, or = for each pair of fractions.

1. $\frac{3}{4}$ —— $\frac{2}{4}$

3. $\frac{1}{8}$ —— $\frac{4}{8}$

2. $\frac{6}{8}$ —— $\frac{7}{8}$

4. $\frac{3}{6}$ —— $\frac{2}{6}$

___/4

**Score 3.0** – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

5. $\frac{3}{4}$ —— $\frac{4}{5}$

7. $\frac{5}{6}$ —— $\frac{7}{8}$

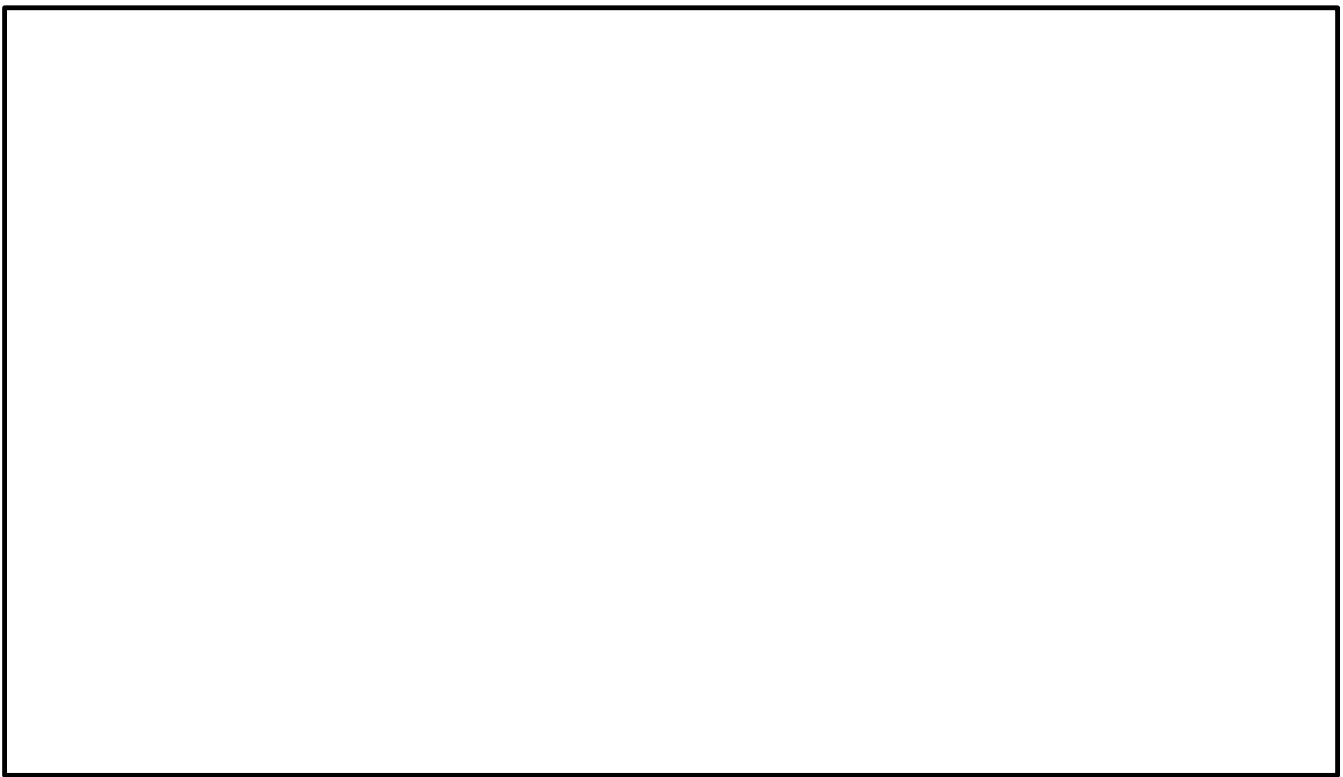6. $\frac{1}{3}$ —— $\frac{2}{7}$

8. $\frac{2}{3}$ —— $\frac{4}{6}$

___/8

4.NF.2

1

**Score 4.0** – Solve the story problem below. Justify your answer with work, pictures, or words.

9. Cindy feeds her cats Fluffy, Mittens, and Spots each day. Fluffy eats $2\frac{1}{2}$ cups of food each day. Mittens eats $2\frac{5}{6}$ cups of food each day. Spots eats $2\frac{1}{4}$ cups of food each day. Put the cats' names in order from least to greatest according to how much they eat each day.

_____    _____    _____

\_\_/2

**4.NF.2**

**1**

# 4) DETERMINING A SCORE LEVEL FOR THE ASSESSMENT

| Section | Item | Possible Points per Item | Obtained Points per Item | Section Percentage |
|---|---|---|---|---|
| **Score 4.0** | 9 | 2 | 0 | 0/2 = 0% |
| **Score 3.0** | 5 | 2 | 2 | 5/8 = 63% |
| | 6 | 2 | 2 | |
| | 7 | 2 | 1 | |
| | 8 | 2 | 0 | |
| **Score 2.0** | 1 | 1 | 1 | 4/4 = 100% |
| | 2 | 1 | 1 | |
| | 3 | 1 | 1 | |
| | 4 | 1 | 1 | |

# 5) DETERMINING A SCORE LEVEL FOR THE STANDARD

| Priority Standard | Artifact #1 | Artifact #2 | Artifact #3 | Artifact #4 | Artifact #5 | Artifact #6 | Overall Performance |
|---|---|---|---|---|---|---|---|
| *4.NBT.2 Place Value* | Obtrusive 1.5 | Obtrusive 2 | Unobtrusive 3 | Unobtrusive 2 | Obtrusive 2.5 | Common 2.5 | |
| 4.NF.2 *Compare Fractions* | Unobtrusive 2 | Obtrusive 2.5 | Obtrusive 2.5 | Common 3 | Student-Generated 3 | | |
| 4.NF.3 *Add and Subtract Fractions* | Obtrusive 2 | Obtrusive 2.5 | Obtrusive 3 | | | | |
| 4.NF.7 *Decimal Concepts* | Unobtrusive 3 | Obtrusive 3.5 | Unobtrusive 3.5 | Common 3 | | | |
| 4.NBT.4 *Addition and Subtraction* | Unobtrusive 2 | Unobtrusive 3 | Unobtrusive 2 | Unobtrusive 2 | Obtrusive 2.5 | Common 3 | |

# Session Reflection Sheet
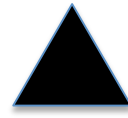
| | | | | | |
|---|---|---|---|---|---|
| A | B | C | D | E | F |
| G | H | I | J | K | L |
| M | N | O | P | Q | R |
| S | T | U | V | W | X |
| Y | Z | | | | |

# Notes

# Notes



Jan K. Hoegh is associate vice president of Marzano Research Laboratory. She has been a classroom teacher, building-level leader, professional development specialist, assistant high school principal, and curriculum coordinator during her 30+ years in education. Prior to joining Marzano Research Laboratory, Jan was assistant director of statewide assessment for the Nebraska Department of Education, where her primary focus was Nebraska State Accountability test development. Ms. Hoegh has served on numerous statewide and national standards and assessment committees and has presented at national conferences.

As associate vice president of Marzano Research Lab, Jan works with districts across the country as they strive to improve student achievement. Her passion for education, combined with extensive knowledge of curriculum, instruction, and assessment, provides credible support for teachers, leaders, schools, and districts. She is an author of the recently published books entitled, *Using Common Core Standards To Enhance Classroom Instruction and Assessment, A School-Leader's Guide to Standards-Based Grading,* and *Collaborative Teams That Transform Schools*.

Jan holds a bachelor of arts in elementary education and a master of arts in educational administration, both from the University of Nebraska-Kearney. She also earned a specialization in assessment from the University of Nebraska-Lincoln.