

Practical Student-Empowered Assessment to Fuel Learning and Differentiate Instruction

“..the greatest power of assessment information lies in its capacity to help me see how to be a better teacher. If I know what students are and are not grasping at a given moment in a sequence of study, I know how to plan our time better. I know when to reteach, when to move ahead, and when to explain or demonstrate something in another way. Informative assessment is not an end in itself, but the beginning of better instruction.”

Tomlinson, C. (2007). Learning to Love Assessment. *Educational Leadership*, 65 (4), 8-13.

T-Chart Topic: Assessment

I think that I know	Questions that I have


Revisit this chart as you learn more.

 **Confirmed**

Place a check next to things that are confirmed.

~~**Cross Out**~~

Cross out things that you no longer think or question.

 **Question**
Add

Place a question mark next to things that you would like to find out more about.

Add new ideas.

Creating a Rubric

1. Learning Goals/Standard(s):

Claim – list possible performances and products that would demonstrate mastery of the standard. This is a “wild” brainstorm of all possible products.

Students can: (performance or product)

1.

2.

3.

Evidence – list the specific qualities of the performance/product that could be literally pointed to as evidence of mastery of the standard. These qualities often become the criteria for the rubric. This list is often used to plan mini-lessons or instructional supports to help students develop the skills needed to produce these qualities in their performance/product.

I see _____ in the student work

Content Evidence

Thinking Evidence

Format Evidence

Determine the product that students will create through the performance task and identify a specific audience for the product.

Students use their content knowledge and a variety of skills to create products or performances. These products or performances can be used to assess student growth and strengths. This is a brainstorm of possible products or performances grouped by the communication method primarily used for the task

Speaking

Argumentative speech
Oral report
Poem
Mock newscast
Choral reading
Skit
Play
Song
Storytelling
Teach others
Debate
Oral interpretation
Monologue
Reader's theatre
Interview
Introduction

Drawing (must include a written component)

Illustration
Animation
Greeting card
Portrait
Postcard
Cartoon
Logo
Advertisement
Map
T-shirt design
Storyboards
Scrapbook
Paper dolls
Costume design
Mural
Poster
Graph/Table

Building (must include a written component)

Photos
Diorama
3D model
Collage

Claymation

Mask
Costume
T-shirt
Invention
Sound recording
Exhibit
Museum
Song/music

Create with Technology

Slide show or PowerPoint
Video taping
Pod Cast
Webpage
Animation

Writing

Brochure
Book cover
Letters
Epilogue
Alternate ending
Essay test
Newspaper article
Biography
Directions
Script
Lab report
Equations
Diary/Journal
Recipe
Historical fiction
Chronology
Song lyrics

Moving (must include a written component)

Tableaux
Experiment
Dance
Lip sync
Pantomime

Develop a Rubric

Develop rubric: Use the evidence list from Step 1: Analyzing the standard to list the expected evidence or components that need to be visible in the performance/product. Go to the meets column and describe the quality. Start by saying, "Yes, the work has _____." Write in the column what you say after the word "Yes" that describes the quality of the component. Then move on to the next column using the same pattern. Describe the **quality** expected (e.g. "three quotes support the thesis statement") not just the **quantity** (e.g. three quotes were used).

Note: Sometimes looking at sample student work from previous tasks helps to think about and establish the criteria.

Qualities →	5	4	3	2	1
	Exceeds and Extends	Exceeds	Meets	Approaches	Needs Improvement
	Yes, and _____	Yes, but _____	Yes _____	No, but _____	No _____
Evidence or Components ↓ (taken from evidence from standards, 1)					

Plan for instruction: Plan how students will use rubric. Students may be involved in developing the rubric and should use the rubric to self-assess and monitor progress toward completing the task.

For more information about how students use rubrics to help them learn, see:
Understanding Rubrics by Heidi Goodrich Andrade
<http://learnweb.harvard.edu/alps/thinking/docs/rubricar.htm>

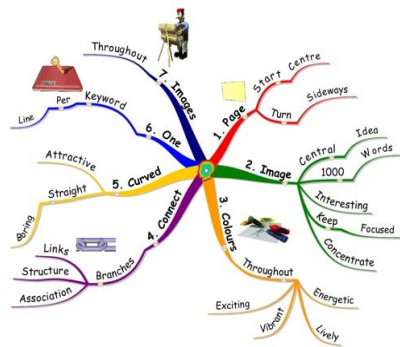
Example Assessments to Inform Differentiated Instruction

Entrance Survey

Ask participants to place their name on a post it note and place it next to a topic or question they would like to discuss, an action that they have accomplished, or if they brought evidence from their setting to discuss. Then use the information to purposefully group learners.

Directions for Creating a Mind Map

1. **Start in the center of a blank page**
 - Turn the page sideways
 - Your brain has more freedom to spread out in all directions
2. **Use an Image or Picture for your central idea**
 - An Image is worth a thousand words
 - It stimulates your imagination
 - It is more interesting
 - It keeps you focused
 - It helps you concentrate
3. **Use Colors throughout**
 - Colors are exciting to the brain
 - Colors add vibrancy and life to your Mind Map
 - Clouds add energy to your creative thinking
4. **Connect Main Branches to the central image**
 - Connect second and third level branches
 - The brain works by association
 - The brain likes to link things together
 - Linking the branches creates structure
5. **Make your lines curved**
 - Straight lines are defined
 - Curved branches have thoughtful possibilities
6. **Use One Key Word per line**
 - Single Key Words give your Mind Map more power and flexibility
 - Each word or image creates its own associations and connections
 - Each Key Word is able to spark off new ideas and thoughts
 - Phrases dampen this triggering effect
7. **Use Images throughout**
 - Each image is worth a thousand words
 - 10 images will give you 10,000 words!



Buzan, T. (1993). *The Mind Map Book*. New York: Plume.

To create online Mind Maps try:

<https://bubbl.us/>

Tony Buzan – Mind Mapping directions www.youtube.com/watch?v=MlabrWv25qQ

Applause O-Meter Rubric

Criteria	Getting Started!	Almost There!	You've got it!
Volume	Applause is barely audible in volume.	Applause is of moderate volume.	Applause is thunderous, making it hard for speaker to talk over it.
Dynamics	Applause is given weakly with many lulls and slow movement of arms and hands.	Applause is of moderate speed with some lulls and regular movement of arms and hands.	Applause is vigorous with no lulls, and rapid movement of arms and hands.
Enthusiasm	Applause is short in duration and given with some reservation.	Applause is polite, short in duration, and given with a smile.	Applause is prolonged & accompanied by whoops & cheers.

Heidi Goodrich Andrade, Harvard Project Zero, 2008

Boxing

What else do I know?

Questions I have about this . . .

Draw a Picture, Diagram, or Graphic Organizer demonstrating your experience with _____.

In words, summarize the above.

This has to do with . . .

Portfolio

Throughout the year you will collect evidence of actions, results, and reflections of your effort to create change. You might store these artifacts in a physical folder or digitally through a WordPress web page, digital drop box, or another site that affords the opportunity to upload artifacts and record reflections. It is useful if others can also comment or offer feedback.

For each entry complete the following form.

Planned Change:

1. Date:
2. Artifact Title:
3. Artifact Brief Description:
4. How does this artifact show change?
5. Why is this artifact important to you?
6. Why might this artifact be of interest to other educators?
7. How is this artifact connected to student learning?
8. What are your next steps; may include things you want to continue and change.

Journal

Offer participants regular scheduled time to capture their thinking in a journal. Invite participants to record their thinking in narrative, list, drawing, map, or any form that is useful. Require participants to reread earlier writing on a regular basis.

Self-Check

Structure self-reflection to focus on specific learning targets, goals, or skills.

Show all work for each problem!

Use product rule to rewrite each expression as single positive exponent.


1) $4^3 \times 4^5$	2) $12^{-6} \times 12^{-18}$	3) $17^{-7} \times 17^6$
---------------------	------------------------------	--------------------------

Use quotient rule to rewrite each expression as single positive exponent.


1) $14^5 \div 14^{-3}$	2) $5^{-7} \div 5^2$	3) $6^4 \div 6^{-4}$
------------------------	----------------------	----------------------

Use quotient rule to rewrite each expression as single positive exponent.

After attempting each set of problems. Rate yourself. Which thumb are you? Write a sentence or two explaining why you chose that thumb.



I chose this thumb because _____



I chose this thumb because _____

Examples of Assessments Used to Create Purposeful Groupings

Rumors

1. Ask participants to jot down an idea on a post it note along with their name. Ideas include:
 - *note three questions they have, put a star next to the most urgent to get answered*
 - *sum-up what they are feeling in a word*
 - *identify their next step for implementing a new idea*
 - *list one practice they usually do that really connects with PZ ideas*

Note Use only ONE idea at a time.

2. Invite participants to join you in an open space with their completed post-it-note.
3. Tell participants there are a lot of rumors going around about “(whatever the topic was for the post-it-note)”. Ask participants, what they know about rumors (they spread quickly and people repeat what they heard from other people).
4. Tell participants that we are going to spread our rumors by going up to someone, reading our post it note, listening to their post-it-note, and then exchanging rumors. Then each person goes up to another person and does the same thing again, Listen, Tell, Exchange, or Tell, Listen Exchange. Participants can use the name written on the post-it-note when they tell a rumor – “I heard from Debbie that...”.
5. Allow participants to exchange ideas with as many people as possible in 3 minutes.
6. Stop the rumors. Ask one participant to read the rumor that they ended up with out loud. Post the rumor on a white board or chart paper and then ask others to post their rumor next to it if it could be in a group with this one. Ask participants to read their rumor out loud as they post them in a group.
7. Encourage participants to give the group of rumors a name.
8. Ask for a very different rumor – and start a second group. Invite others to post similar rumors to make a second group and brainstorm a name for the new group of rumors.
9. Continue adding groups until all rumors are collected.
10. Discuss what our rumors may tell us about our learning, questions, ourselves.

Next steps:

1. Birds of a Feather can flock together: the rumors are now grouped by common themes. So, the people can gather to further talk about the ideas by the groupings of their post-it-notes.
2. Variety is the Group: You can pull one post it note from each of the different groupings to form a new mixed idea group. Continue to pull one from each group until all groups have people whose initial response was diverse.

Idea Carousel

1. Post topics and chart paper around the room (one topic per chart paper).
2. Ask participants to go to a topic that interests them most (no more than three people to a group – so some may have to choose 2nd choice).
3. Brainstorm things you think that you know, questions, or concerns that you have about this topic onto the chart paper. Divide chart paper if more than one task is given such as things you think that you know and questions.
4. Rotate to the next chart and **take your marker**. Change who is the recorder.

✓ Read the chart, check ideas that resonate with you as well
+ Add new ideas to the chart

5. Rotate again and take your marker with you. Change who is the recorder.

✓ Read the chart, check ideas that resonate with you as well
+ Add new ideas to the chart
* Star three ideas or questions that you would like to discuss

6. Rotate again and take your marker with you.

✓ Read the chart, check ideas that resonate with you as well
+ Add new ideas to the chart
* Star three ideas or questions that you would like to discuss or the
○ three most important ideas

7. Gallery walk around to see the other chart papers – end at your starting place. Notice the changes to your chart. Put an ! point next to things that surprise you.
8. Sit down – discuss the charts – See: Ask participants what they see in the charts, Think: Ask participants what they think about the circles and underlines, Wonder: Ask participants what questions should we pursue and what are our next steps.
9. Take a moment to write a down your own learning or take away from this activity.

Examples of Assessments Used to Monitor Learning

Mind Maps – a diagram used to represent words, ideas, images, and facts centered around and connected to a specific topic. Process created by Tony Buzan.

Think I know – Questions Chart

KQR (K= think I know, Q = questions and wonderings, R=what I will read or research) – an organizational chart to elicit and document students' interests and awareness of resources.

Ponder-Pass – an activity that consists of telling students the upcoming topic and then passing a notepad around the class and challenging students to write notes about what they know, skills they need, facts they want to know, and questions related to the topic.

Response Cards – cards to inform teacher and help students practice metacognition regarding knowledge base, feelings, attitudes, likes/dislikes, facts learned, and identify misconceptions.

Yes/No Cards – (Yes, Got It!; No, No Clue!)- responses to teacher questions with yes or no. If yes, they are required to elaborate while the teacher takes notes about what is known, misinformation, and areas to emphasize or skip.

Show and Tell – an opportunity for students to tell it, draw it, write it, or create a sample to display.

One Minute Paper – (described in Angelo and Cross, *Classroom Assessment Techniques*) a way to collect short answers from students to two questions:

- What was the most important point made in class today?
- What unanswered question do you still have?

The teacher can respond back to students by writing with a one sentence comment.

Entrance/Exit Card - a way to collect information about that day's lesson. The teacher poses three questions prior to the beginning of the lesson. The first two questions review previously taught information and the third question addresses the topic of the day's lesson. On the reverse side are a series of open-ended exit questions including:

- * What did I learn today?
- * Where did I excel?
- * Where can I improve?

Temperature Check or Likert Scale or Take a Stand, Agree-Disagree

a routine for learning about students' stances or feelings about issues or statements related to content.

Concept and Vocabulary Tasks – some examples are WordSplash (brainstorm words associated with a topic), comparing words, and connecting concepts to similar/different.

Process Letter – a letter that students write to explain a process or how they solved a problem.

PMI – a way for students to indicate the Pluses, Minuses, and Interesting ideas / concepts related to a topic




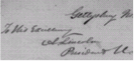

Picture Interpretation – Connections/Relationships - a way to see how students depict or describe the relationships between concepts (this requires them to organize and relate their background knowledge).

Commented [d1]: Does it make sense to provide more details here? Maybe even just say in parentheses (scale to measure degree of agreement with a statement) Or we could consider just hyperlinking.

Commented [d2]: Sorry, am confused. Is this quite literally a letter, as a form of epistolary device? Or not exactly a letter, structure-wise?

More instructional focus to a K-W-L chart

Know, Want to Know, and Learned Chart: Created by Donna Ogle in 1986, this three column chart helps students show their background knowledge, interests in learning, and reflections on what has been learned. By providing students with questions related to the objectives of the topic under study, teachers can add an instructional focus. The questions have a variety of instructional uses including grouping students by interest. Students' answering the questions can be a way to conduct ongoing formative assessment throughout the unit, and/or students who can answer the questions at the beginning of the unit can be provided with extension questions to ensure that they are challenged.

Think You Know	Want to Learn	New Insights and Questions
	<p>Choose the question that interests you.</p> <p> Poet who was President How is the Gettysburg Address like the poetry that Lincoln wrote?</p> <p> Just like being there How does it feel to say and hear the Gettysburg Address?</p> <p> It adds up How can numbers help us understand the significance of the Gettysburg battle?</p> <p> What's the story? How do personal reactions to the Gettysburg Address complete the story of the event?</p> <p> Connections over time What common themes unite great documents?</p>	

Make Curiosity Visible in the Classroom

Gallimaufrey Gatherings: Several weeks prior to a new unit, pose a problem, question, topic, person or event on a container. Ask students to fill container with materials and resources related to the topic. Individuals must complete an entry form for each contribution explaining what it is and why it relates. *This will build curiosity, help identify knowledge base, and bring to light misconceptions.*

Related ideas – Content Knowledge Boxes, Mystery Masters, Content Surveys, Visual KWL or Graffiti Wall



The Well Developed Classroom Blog:
On-going Checks for Learning to Support Differentiated Instruction

“..the greatest power of assessment information lies in its capacity to help me see how to be a better teacher. If I know what students are and are not grasping at a given moment in a sequence of study, I know how to plan our time better. I know when to reteach, when to move ahead, and when to explain or demonstrate something in another way. Informative assessment is not an end in itself, but the beginning of better instruction.”

Tomlinson, C. (2007). Learning to Love Assessment. *Educational Leadership*, 65 (4), 8-13.

What are on-going checks for understanding?

Teachers routinely observe learning and examine student work to determine if all students are making expected progress toward learning standards. This process of regular observation and examination on movement toward specific goals is called **on-going assessment**, and can also be described as formative or informal assessment.

Although on-going checks for understanding or on-going assessment can happen constantly in the classroom, it may be difficult to determine when a learning activity qualifies as an on-going assessment. It might help to think of on-going assessment similar to an annual medical check-up. Like a check-up, on-going assessment is designed to provide information that will improve the day to day life of the student, acknowledge behaviors that are working well, and detect issues that could develop into larger problems. To help determine if an activity is an on-going assessment, Goodrich and Cizek (2010) outline Ten Characteristics of formative assessments (below). Every ongoing assessment may not have all ten characteristics, however, if an assessment has many of them, then it is considered strong and useful.

Ten Characteristics of Formative Assessment:

1. Requires students to take responsibility for their own learning.
2. Communicates clear, specific goals.
3. Focuses on goals that represent valuable educational outcomes with applicability beyond the learning context.
4. Identifies the student's current knowledge and skills and the necessary steps for reaching the desired goals.
5. Requires development of plans for attaining the desired goals.
6. Encourages students to self-monitor progress toward the learning goals.
7. Provides examples of learning goals including, when relevant, the specific grading criteria or rubrics that will be used to evaluate the student's work.
8. Provides frequent assessment, including peer and student self-assessment and assessment embedded within learning activities.
9. Includes feedback that is non-evaluative, specific, timely, related to the learning goals, and provides opportunities for the student to revise and improve work products and deepen understandings.
10. Promotes metacognition and reflection by students on their work.

Why is on-going assessment important?

Grant Wiggins suggests that assessment should be educative, enabling teachers to make changes according to on-going assessment results before students have reached exit level exams (2003). On-going assessment is a primary tool that teachers can use to determine and justify instruction, including remediation, supports, and extensions to the established curriculum. Monitoring the day-to-day evidence of differences in students'

current levels of understanding and use of skills enables teachers to make sure that all students are progressing (Stiggins, 2008). Finally, on-going assessment that monitors student progress is an essential component of the multi-tiered levels of instruction embodied in a response to intervention (RtI) model that many schools are implementing.

In addition to benefits for teachers, on-going assessment helps students monitor their own learning and fosters the development of goal setting and self-assessing skills. These self-regulated learning behaviors help students take ownership of their learning, achieve in their current grade level, and succeed in college and career settings.

Where to begin with using on-going assessments in the classroom?

To implement on-going assessment, teachers can begin with the four teacher actions. Classrooms may look different based on the age and the subject being taught; however, the four key actions remain the same throughout the grades and subject areas.

Four Teacher Actions in On-Going Assessments

- 1. Know what you are measuring.**
- 2. Make results visible.**
- 3. Use the results to improve instruction.**
- 4. Require students to learn from the results.**

1. Know what you are measuring and why the information is important.

- Label each problem or task with the learning objective or standard that the problem measures.
- Be able to explain how the things being measured are related to the learning objectives.
- Measure understanding, skills, knowledge, habits, and feelings in multiple assessments to measure change over time and student growth related to specific instruction.
- View data from *on-going assessments* in the context of other assessments and information.

2. Make results visible.

- Include a summary table or graph that asks students to count the number of problems correct/incorrect by learning goal.
- Require students to reflect on this data chart to determine the strengths/needs including knowledge, skills, and habits that the assessment made visible. Note that the data chart and reflection questions should be completed after the assignment is graded.
- Discuss with students the results of on-going assessment and include them in determining the next learning steps.

3. Use the results to improve instruction.

- Use on-going assessment before, during, or as an exit card at the end of a lesson.
- Collect only the information that you plan to use in the near future.
- Collect information needed to create purposeful groups or to decide who would benefit from a mini-lesson or a review with independent practice problems.

- Use the information to find expert students to assist other students after school or at another study time.
- Adjust instruction by assigning learning activities to specific students based on a need or strength recognized by both the teacher and student through the on-going assessment.

4. Require students to learn from the results.

- Help learners to know themselves as a learner and academic progress.
- Ask students to summarize their performance on all assignments/tests pointing out their strengths, areas for growth, types of errors (simple mistake, not knowing, misunderstanding).
- Assess competences developed through a previously taught unit to remind students of previously learned knowledge and skills.
- Survey students about their interest in and experiences with new topics. Ask students why they feel inclined toward a certain preference or how they acquired their current knowledge.
- Ask students to consider their feelings and habits “What kind of relationship is there between my studying method and the test results?” “What about this topic interests me or connects to things in my life?”
- Share assessment purpose with students: e.g. content knowledge, vocabulary, understanding of concepts, preferred learning methods/strategy, specific skills mastery, or find out how students may have learned this topic in the past. Ask students to help determine next steps.
- Ask students to set and monitor learning goals based on data from *on-going assessments*.
- Encourage students to learn from their learning by looking for patterns of change, growth, and surprises among their responses over time.

The following examples show how the four teacher actions of on-going assessment might look in practice. There are many more ways to use on-going assessment. These examples help to launch teacher thinking about which on-going assessments provide useful information to adjust instruction to be more efficient and effective for all learners. When looking at these examples, think about how the four criteria for teacher actions for ongoing checks for understanding are used within a short about of instructional and planning time. Also consider how learners are using assessment results to actively participate in and set goals for their own learning. These examples show how ongoing checks for understanding provide teachers with the information needed to design effective and efficient instruction while at the same time helping students develop self-efficacy.

Example #1: Knowledge Rating Check-Point

Note: The teacher has displayed five images of the different habitats that will be studied.

Academic Vocabulary Check- Point: Habitats

Directions to Students:

A. Look at the five images of different habitats.

B. List the names of the habitats.

1. 2. 3. 4. 5.

C. Describe when and how you learned the names of the habitats.

Unpack this example with our four elements of ongoing checks for understanding

1. Know what you are measuring.

- Academic vocabulary – names for five habitats.
- Learning methods used in the past.
- Level of perceived expertise with topic.

2. Make results visible.

- Provide a summary to the class about how they have learned previously and the average self-determined knowledge ratings.
- Ask students to gather at tables by their self-determined knowledge rating score (1's together, 2's together, etc.). Then ask students to brainstorm questions that they have about habitats. Rotate groups and have them put a check next to questions that also interest them. Use the high interest questions to engage students in the textbook and other reading activities to uncover the answers to their questions.



3. Use the results to improve instruction.

- Pull students for mini-lesson on needed vocabulary, as necessary.
- Provide a homework assignment to review and practice needed vocabulary.
- Provide scientific names to extend student vocabulary.
- Use a strategy that students reported using before to learn vocabulary in an upcoming lesson.

4. Require students to learn from the results.

- Ask students to complete another knowledge rating and compare responses.

Example #2: T-Chart to Monitor Learning

Topic: _____	
I think that I know	Questions that I have
<hr/>	
 Confirmed	Revisit this chart as you learn more. Place a check next to things that are confirmed.
— Cross Out —	Cross out things that you no longer think or question.
 Question	Place a question mark next to things that you would like to find out more about.
Add	Add new ideas.

Unpack this example with our four elements of ongoing checks for understanding

1. Know what you are measuring.

- Brainstorm of knowledge and questions on the topic.
- Require the use of certain terms or facts to ensure students reflect on required objectives.

2. Make results visible.

- Draw attention to learning by reflecting on the notations (checks, cross outs, additions, and added text).
- Revisit chart often throughout the unit – as a Do Now, Exit Card, or homework assignment.

3. Use the results to improve instruction.

- Provide a lesson on background knowledge that students include on their initial chart.
- Pull students for mini-lesson based on needed facts or questions.
- Group students by common questions and assign reading to answer the question.
- Provide extension activities and resources to answer questions.

4. Require students to learn from the results.

- Ask students to write a summary of how their thinking has changed and why those changes

Example #3: Exit Card- Reflection Routine

Exit Card
I used to think....
Now I think....
So next, I need to

Unpack this example with our four elements of ongoing checks for understanding

1. Know what you are measuring.

- Focused reflection of how thinking changed about a topic.
- Ability to plan a logical next step based on personal reflection.

2. Make results visible.

- Ask students to share their exit card while sitting or standing in a circle. Invite students to identify patterns and surprises in how thinking has changed for the class.
- Post exit cards and revisit to note new changes in thinking throughout the unit/year.

3. Use the results to improve instruction.

- Provide a lesson on topics that students did not include in their cards but are important for the unit.
- Note the patterns in topics that students noted, reflect on lessons related to the most popular topics to think about if certain learning strategies seem to be more effective with particular classes.
- Organize students in groups based on the identified next steps.

4. Require students to learn from the results.

- Ask students to complete their next steps.
- Ask students to reflect on what this change in thinking means to them as a learner.
- Ask students to identify ways that their thinking has not changed, thinking about the positive and negative results of unchangeable thinking.

Example #4: Performance Summary on Homework or Test

SAMPLE 6TH GRADE MATH PERFORMANCE SUMMARY

Name _____ Class _____ / Math _____

Playing with the Properties

Learning Targets	Complete understanding (2 points)	Partial understanding (1 point)	Not shown in this test (silly mistake or need to know)
1. Number sense			
2. Writing about the math			
3. Number sense			
4. Writing about the math			
5. Number sense			
6. Number sense			
7. Commutative Property			
8. Identity Property			
9. Identity Property			
10. Inverse Property			
11. Inverse Property			
12. Distributive Property			
13. Distributive Property			
14. Representing a situation			
15. Representing a situation			

Performance Summary
 Number Sense (#1, 3, 5, and 6) _____ /8
 Writing about the math (#2 and 4) _____ /4
 Commutative Property (#7) _____ /2
 Identity Property (#8 and 9) _____ /4
 Inverse Property (#10 and 11) _____ /4
 Distributive Property (#12 and 13) _____ /4
 Representing a situation (#14 and 15) _____ /4
TOTAL _____ /30

Reflection
 This assessment shows me:

My next steps for learning are to:

Unpack this example with our four elements of ongoing checks for understanding

- 1. Know what you are measuring.**
 - Level of mastery with topics listed in performance summary.
 - Ability to identify type of mistake that was made.
- 2. Make results visible.**
 - Create a summary chart of how all students performed on the tested topics.
 - Save performance summaries to consider growth over time.
- 3. Use the results to improve instruction.**
 - Provide a list of review and extension activities for each topic in the performance summary, enabling students to independently identify assignments that they need to complete.
 - Note the patterns in topics that students did not understand and consider expanding the learning strategies in the lessons where many students have lingering misunderstandings.
 - Organize students in groups based on the identified next steps.
- 4. Require students to learn from the results.**
 - Ask students to complete their next steps.
 - Set-up peer tutoring based on results.

References

Andrade, H.& G. Cizek. (2010). Handbook of Formative Assessment. New York: Routledge. (8).

Stiggins, R.J. (2008) Assessment Manifesto: A Call for the Development of Balance Assessment Systems. A position paper published by the ETS Assessment Training Institute, Portland, Oregon.

Wiggins, G. (2003). Educative Assessment: Designing assessment to inform and improve student performance. CA: Jossey-Bass.