Please sit:
Closer to the front
Near friends
Near strangers
(aka new friends)
Presentation: tinyurl.com/nctm18sbg
Building a Flexible Standards-Based Classroom within a Traditional School Setting

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NCTM Annual Meeting
Washington Convention Center
Fri, 4/27/18 8:00 AM - 9:00 AM
Session 1404, Room: 145 AB (Theater, 552 Seats)
Amanda would not come in Classroom

"I gotta fart"
Roadmap

- Examine our personal philosophies of grading and assessment
- Discuss the definition of “standards-based grading”
- Preview ways to embed SBG in the most restrictive environments
- Smooth the transition for parents, students, and yourself
Welcome to Traditional High School in Anywhere, USA
What does it mean for a student to pass your class?

Turn and talk to a partner.
What is the purpose of a final grade in your class?

Sort the slips of paper from most to least important with a partner.
Norming Our Grading System

Content Grades:
This grade represents a student’s progress towards mastery of content standards. This could also be called the “traditional” math grade. Typically, these skills are not very transferrable.

Practice Grades:
This grade represents a student's progress towards the math practice standards. These could be seen as an “application” grade. Typically, these skills are transferable to other fields.

Scholarship Grades:
This grade represents a student’s progress towards the transferable qualities of being a “productive student”. Typically, these skills are transferable to all other academic settings.

Completion Grades:
This grade represents the completion of a specific task. Often an “all or nothing” grade to elicit a specific behavior.
What is Standards Based Grading?

“Standards based grading involves measuring students' proficiency on well-defined course objectives”

Tomlinson & McTighe, 2006
Integrating Differentiated Instruction & Understanding by Design
What is Standards Based Grading?

1. Based on learning goals and performance standards. One grade per goal.
2. Standards are criterion or proficiency-based. Criteria and targets are made available to students ahead of time.
3. Measures achievement only OR separates achievement from effort/behavior. No penalties or extra credit given.
4. Selected assessments (tests, quizzes, projects, etc.) are used for grading purposes.
5. Emphasize the most recent evidence of learning when grading.

How to Grade for Learning: Linking Grades to Standards
Corwin
What is Standards Based Grading?

1. Entries in the grade book are limited to course or grade level standards
2. Extra credit will not be given at any time
3. Multiple opportunities to demonstrate their understanding
4. Grade book entries from multiple points of data emphasizing the most recent
5. Multiple opportunities to practice standards independently. Practice assignments are for providing feedback. Practice assignments, including homework, will not be included as part of the final grade

Matt Townsley, 2014

What is the Difference between Standards-Based Grading (or Reporting) and Competency-Based Education?

Competency Works
“Measures achievement or separates achievement from effort/behavior”

**Scholarship Standards**
- 5/5 - Reflections
- 5/5 - Homework + Videos
- 10/10 - Notebook Check

**Content Standards**
- 1/10 - Completed a challenge
- 9/10 - Mastered the Skill
- 8/10 - Some procedural errors
- 7/10 - Some conceptual errors
- 5/10 - Many conceptual errors

**Practice Standards**
1. Understand & Persevere
2. Abstract & Contextualize
3. Justify & Critique
4. Model, Revise, Retry
5. Use tools Strategically
6. Be Precise
7. Organize & Structure
8. Use Patterns

- Retest twice
- One standard per day
- No tutoring "day-of"
- 2 weeks!
“Standards are criterion or proficiency-based. Criteria and targets are made available to students ahead of time.” “No extra credit”

10/10 **Above Mastery**: you have mastered the skill and correctly applied it to a challenging and novel situation

9/10 **Mastery**: you have demonstrated a full understanding of the concepts involved, have clearly showed all steps of your reasoning, have used notation correctly, and have no errors

8/10 **Some procedural errors**: you have demonstrated a full understanding of the concepts involved, but you may have made a procedural error that was not related to this standard

7/10 **Some conceptual errors**: you have demonstrated partial understanding, but are unclear on one minor concept.

5/10 **Weak understanding**: you have attempted to answer the question, but are unclear about multiple minor concepts, or one major concept. Student should retake.

0/10 **No understanding**: You left the problem blank or made no mathematical attempt.
“Standards are criterion or proficiency-based. Criteria and targets are made available to students ahead of time.” “No extra credit”

10/10 Above Mastery: Wow!
9/10 Mastery: Yes!
8/10 Some procedural errors: Yes, but...
7/10 Some conceptual errors: Kinda...
5/10 Weak understanding: Not really.
0/10 No understanding: Check for a pulse!
Standard 1: I can graph a linear equation in any form

10/10 **Above Mastery:** All correct with challenge

10) If the line $Ax + By = C$ has $A > 0$, $B > 0$, and $C > 0$, what can you conclude about the slope of the line?
   - A) The slope is positive
   - B) The slope is negative
   - C) The slope is 0
   - D) There is not enough information

9/10 **Mastery:** All correct except challenge

8/10 **Some procedural errors:** Reverses the sign of the slope in one graph

7/10 **Some conceptual errors:** Continuously confuses $x=3$ and $y=3$

5/10 **Weak understanding:** Continuously graphs the slope and the y-intercept incorrectly.
“Standards are criterion or proficiency-based. Criteria and targets are made available to students ahead of time.” “No extra credit”

8 + 1 / 10
“Based on learning goals & performance standards. One grade per goal”

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/15/2018</td>
<td>Content Standards</td>
<td>Content Standard 20: Points, Lines, and Planes</td>
</tr>
<tr>
<td>03/15/2018</td>
<td>Content Standards</td>
<td>Content Standard 21: Naming Geometric Figures</td>
</tr>
<tr>
<td>03/15/2018</td>
<td>Content Standards</td>
<td>Content Standard 22: Geometric Vocabularies</td>
</tr>
<tr>
<td>03/15/2018</td>
<td>Content Standards</td>
<td>Content Standard 23: Missing Angle and Segment</td>
</tr>
<tr>
<td>03/13/2018</td>
<td>Math Practice Standards</td>
<td>Application Standard: Geometry Pictionary</td>
</tr>
</tbody>
</table>

Unit IA, Basic Figures and Notation Assessment
Geometry
Mr. Janes – TRMHS

Please write all answers on the lines provided. Be sure to read all directions and check your work. Good luck!

Standard 20: I can understand and apply the notions of points, lines, and planes.

Use the diagram to answer questions 1 and 2.

1. Name a point collinear with point D and point E

Diagram:

```
    B
   /|
  C / \
   /  m
  D---E---F
 /       /\nG       H
 / \     /\n P-------q
```

\[ \boxed{10} \]
“Based on learning goals & performance standards. One grade per goal”

Practice Standard: I can use precise language to explain my ideas

Practice Standard: I can justify and critique mathematical arguments

Practice Standard: I can change strategies, rely on my group, and persevere when struggling

As you are completing the Geometry City task, the teacher will grade your group twice: first by interviewing your group and later by listening to your group. Your teacher may also subtract points at any time if the group is off-task.
What constraints might you encounter when assessing with standards?

What solutions would make sense for you, your students, and your families?
“Separates achievement from effort/behavior”

Geometry Scholarship Reflection

* Required

**Tier 1 Goals**

Reflect on the questions below

Reflect on your timeliness today: *

- I was on time to class and started the warm up activities on time (10 points)
- I was less than a minute late to class, including the warm up (9 points)
- I was more than a minute late to class, including the warm up (0 points)

Scholarship Goal Setting Document
Geometry & Statistics
Academy of Science and Innovation

Date: ____________________ Class: __________

Each class, you will reflect on your three goals with a Google form. You will be asked to rate yourself using the rubric below. At the end of the reflection, you will think about what you can do to improve on your periodic reflection, and I will confer with you periodically on your progress and growth. If you feel that you are having difficulty with your goals, please meet with me to discuss changing your goals before the next unit.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Not There... Yet! (9 points)</th>
<th>Getting There (10 points)</th>
<th>Met Goal (1 point)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared</td>
<td>The teacher needed to remind me to bring my materials</td>
<td>I asked the teacher to get my materials</td>
<td>I had all of my materials before the warm up</td>
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<tr>
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“Separates achievement from effort/behavior”
Turn & Talk

Did you include scholarship standards in your ideal grading system?

If so, how would you assess them?
Multiple opportunities to practice standards independently

Unit 2C: Triangles and Quadrilaterals

- 4 sections
  - Video and Worksheet: Intro to Triangle and Quadrilateral Vocabulary [Standard 19]
  - Video Check: Triangle and Quadrilateral Vocabulary [Standard 19]
  - Video: Properties of Quadrilaterals [Standard 20]
  - Video: Properties of Quadrilaterals Through Transformations [Standard 20]
  - Worksheet: Properties of Quadrilaterals HW [Standard 20]
  - In-Class: Properties of Quadrilaterals, Tier 1 [Standard 20]
  - In-Class: Properties of Quadrilaterals, Tier 2 [Standard 21]
  - In-Class: Properties of Quadrilaterals, Tier 3 [Standard 21]
  - Video Check: Properties of Quadrilaterals [Standard 20]
  - Video Check: Algebra and Quadrilaterals [Standard 21]
"Multiple opportunities to practice standards independently"
What structures could you add to your class to encourage and facilitate independent practice?
1. You can only re-test a standard twice
2. Only one standard can be re-tested per day
3. You cannot receive tutoring right before you re-test a standard

Assignment Comments:
Attempt 1: 5
Attempt 2: 8
Attempt 3: 9
“Multiple opportunities to demonstrate their understanding”
“Emphasize the most recent evidence of learning when grading.”
What structures could you add to your class to encourage students to persevere and re-try?
Places where Traditional and SBG Clash

- Rubrics with a total point value of 4
- Passing criteria based on number of standards mastered
- Report Cards that don’t display categories
- Marking Periods with permanent grades
- Tendency to treat standards in isolation
Making the Transition for Students

- Keep it focused on learning and growth
- Support the conditions necessary for students to succeed
- Make failure cheap
- Make learning accessible
- Celebrate success
Making the Transition for Parents

- Have your policies in ink and write a letter to parents
- Have your ideas ready for Open House
- Showcase the resources students have to succeed
- Use the standards as an asset during parent communication
- Focus on learning and growth
Making the Transition for You

- It’s okay to not have standards for the whole year planned out
- It’s okay not to grade everything
  - Assess only what you value
  - Use technology (if possible)
  - Focus on feedback, not grades
- It’s okay to change policies to meet the needs of your class
Sources of Inspiration

Matt Townsley: http://mctownsley.net/standards-based-grading/
Dane Ehlert: https://whenmathhappens.com/standards-based-grading/
Sam Shah: https://samjshah.com/tag/standards-based-grading-sbg/
Daniel Schneider:
https://mathymcmatherson.wordpress.com/2013/04/27/assessments-the-collateral-damage-of-sbg/
Bruce Jackson:
Anna Blinstein: http://borschtwithanna.blogspot.com/2017/04/formative-feedback.html
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