Instructional Planning Using the Understanding by Design Framework

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Session Goals

- Outline CHCCS instructional planning process using the Understanding by Design Framework
- Examining and scoring Performance Based Assessments

Action Plan

Support high quality teaching and learning and work toward **consistent expectations and outcomes** aligned with standards across the district.

Essential Components…

- Instructional Planning teams for mathematics
- Professional development for teachers and administrators
- Instructional Coaches

Instructional Planning Teams

Starting in the spring 2013..

8 planning teams….

- Elementary Grades 3-4-5
- Middle School Grades 6,7,8
- High School Math I, Math II

Instructional Planning Teams

Starting in the spring 2014..

Continue 8 planning teams and add 4 teams….

- Elementary Grades K-1-2
- High School Math III

Stages in UbD

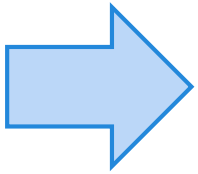
Stage One:
Identify Desired Results

What long term goals are targeted?

What meanings should students make to arrive at important understandings?

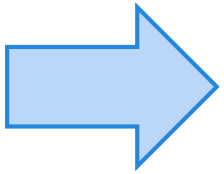
What essential questions will students keep considering?

What knowledge and skill will students acquire?



Stage Two:
Determine Acceptable Evidence

What collection of assessments will provide evidence that students learned the essentials in Stage One?



Stage Three:
Plan Learning Experiences and Instruction

What activities, strategies and instructional methods will help students learn the essentials in Stage One and prepare students for the assessments in Stage Two?

Instructional Planning Teams

What each team will do....*use UbD model*

1. Create year-long scope and sequence documents aligned to Common Core for their grade level. Outline a pacing guide.

2. Develop Performance Based Assessments and scoring guides for the first three quarters.

3. Align scope and sequence documents to instructional materials.

https://sites.google.com/a/chccs.k12.nc.us/chccs-elementary-math-site/

Stages in UbD

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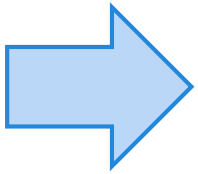

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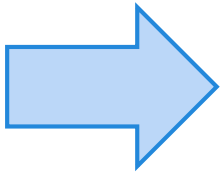

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Part 2: Examining and Scoring Performance Based Assessments

Complete the Smaller Rectangles Task. The green sheet in your packet.

Think of 2-3 different ways students may complete the task.

Smaller Rectangles Task

- How does the task assess the content standard 3.MD.7c?
  c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.

- How does the task assess the mathematical practices 1-4, 6 and 7?

Scoring Guide and Annotated Work:
What makes an effective scoring guide?

- Each task has been aligned to one or more content standards and one or more practice standards. 1 point is assigned to each standard.

- A clear description is provided of what student work that meets the content standard or standard for mathematical practice must include.

- Four pieces of annotated student work are provided.

Studying the Scoring Guide:
Small Group Discussion

Study the scoring guide for the Smaller Rectangles task.

- Consider what must be evident in the work for a content standard point to be awarded to a student. Why is it appropriate for a PBA task to focus on one content standard?
- Consider the evidence that must be observed for students to earn a mathematical practice point.
- Use the student work and the annotations to help you interpret the meaning of the scoring guide.

Studying the Scoring Guide:
Whole Group Discussion

- What do you understand better about the evidence that must be included in student work in order for a student to earn a content point?

- How do the points earned for the Standards for Mathematical Practice differ from those earned for content?

- How is the annotated work helpful when understanding the scoring guide?

Scoring PBAs

- Tip: When scoring PBAs have one teacher focus on scoring a task for the whole grade level. The teacher will become more of an expert with the task.
  - scores will be more consistent
  - will shorten scoring time

Scoring PBAs: Setting up the Process

- We will be using the scoring guide to score four student work samples. Create a group of four people from those sitting near you.

- Each person will serve as facilitator for one work sample, i.e. Student A,B,C, or D. The facilitator will lead the table discussion about the item.

- As you score, record your evidence for why you are or are not awarding a point for a particular standard or mathematical practice.

Scoring the PBAs: Individual Work

We will all score the same student work for a task in order to develop reliability in our scoring process.

INDIVIDUALLY:

•Use the scoring guide. If the student work fits the descriptor for the standard or practice, write a 1 in the scoring box. If you do not believe the student has earned a point write a 0 in the scoring box. Record evidence from the student's work that supports your decision.

Scoring Student Work:
Small Group Discussion

AT YOUR TABLE:

- Once the work has been scored by everyone at the table, compare the scores.
- If discrepancies exist among scores then scorers share their rationale. The goal is to come to agreement on a score at the table.
- Consult the Annotated Student Work in order to better understand a standard or to determine which your piece of student work more closely resembles.

Scoring Student Work:
Small Group Discussion

Have the facilitator for each piece of student work come to the chart paper and record the student's score.

Under the scores record:
Which standard or mathematical practice did your group discuss the most before coming to an agreement?

Scoring Student Work:
Whole Group Discussion

How were the scoring guide and annotated work helpful in interpreting the students' work to determine their understanding of the content and math practices?

Scoring Student Work:
Whole Group Discussion

- What do we learn about the students' understandings based on their performance on this assessment item?

- What wonderings do you have about the students' understandings based on their performance on this assessment item?

What comes next?

How can the students’ scores be used?

Interpreting the Scores

- Each PBA task has a different total score. This made understanding the scores to inform instruction, determine proficiency and talk with families difficult.
- Used each PBA task to determine ranges of points on the PBA that would coincide with the grading we use in our district.

PBA Proficiency : 3rd Quarter

Task 1: Fractions	Task 2: Candy Bar	Task 3: Number Line	Task 4: Sharing Pizza
1: 0-2	1: 0-4	1: 0-2	1: 0-2
2: 3-5	2: 5-7	2: 3-4	2: 3-4
3: 6-9	3: 8-14	3: 5-7	3: 5-8
4: 10	4: 15	4: 8	4: 9

Interpreting the Scores

Student Name	Fractions	Candy Bar	Number Line	Sharing Pizza
Jose	2	3	3	2
Amy	3	3	3	3
Josie	3	3	3	3
Aldair	3	3	3	4
Scott	3	3	4	3
Braxton	4	2	4	4
Picaso	4	4	1	3
Brenton	4	4	3	4

Final Thoughts or Questions

What can be learned from assessing and scoring students in this way? How does it support the Understanding by Design framework?

Resources

Institute for Learning
Retrieved August 6, 2014, from http://ifl.pitt.edu/home