



Welcome Back!

C²S² Mathematics

Session 4

Grade 7

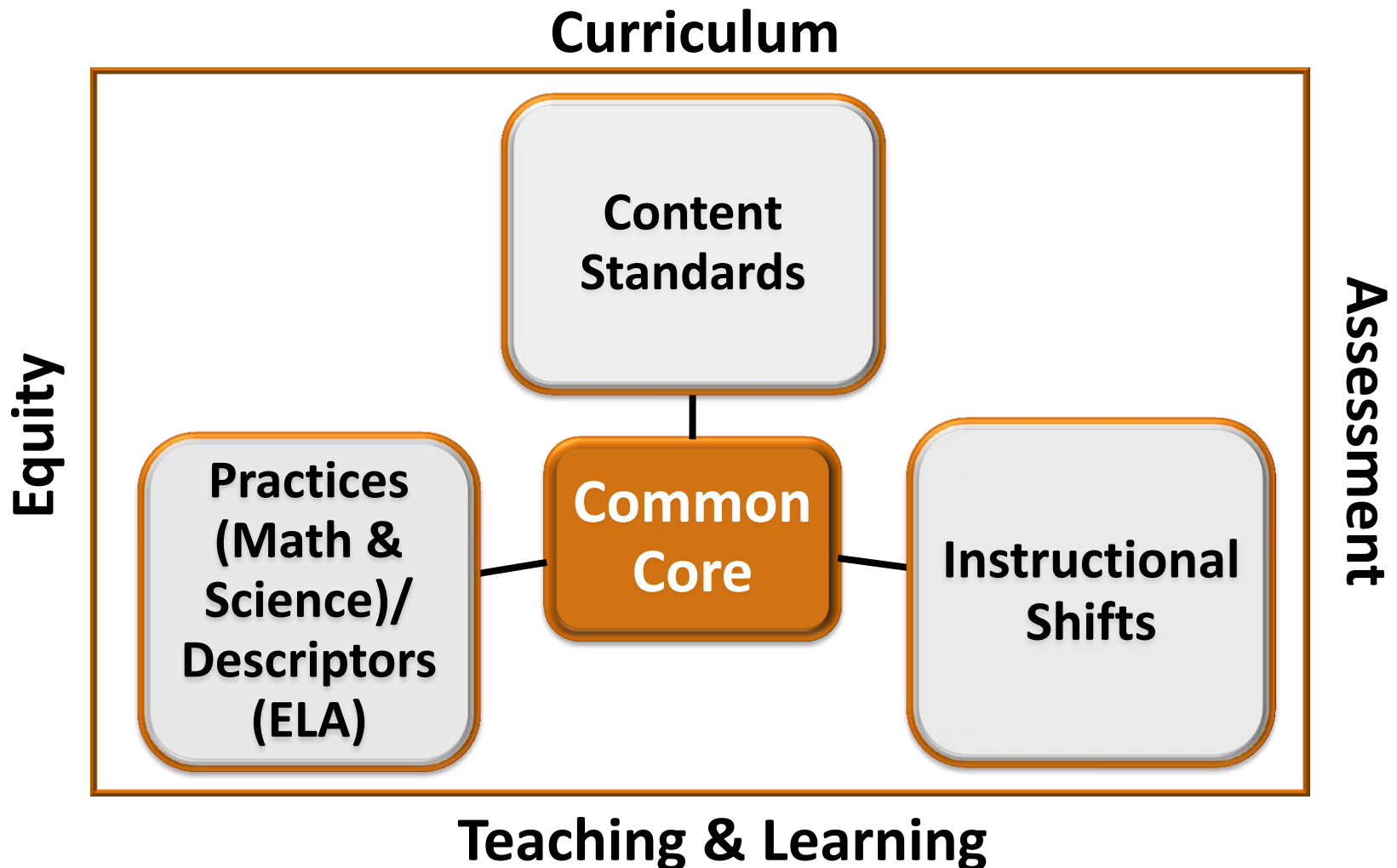


Check-In

- What is something you are proud of that your students have accomplished this year?

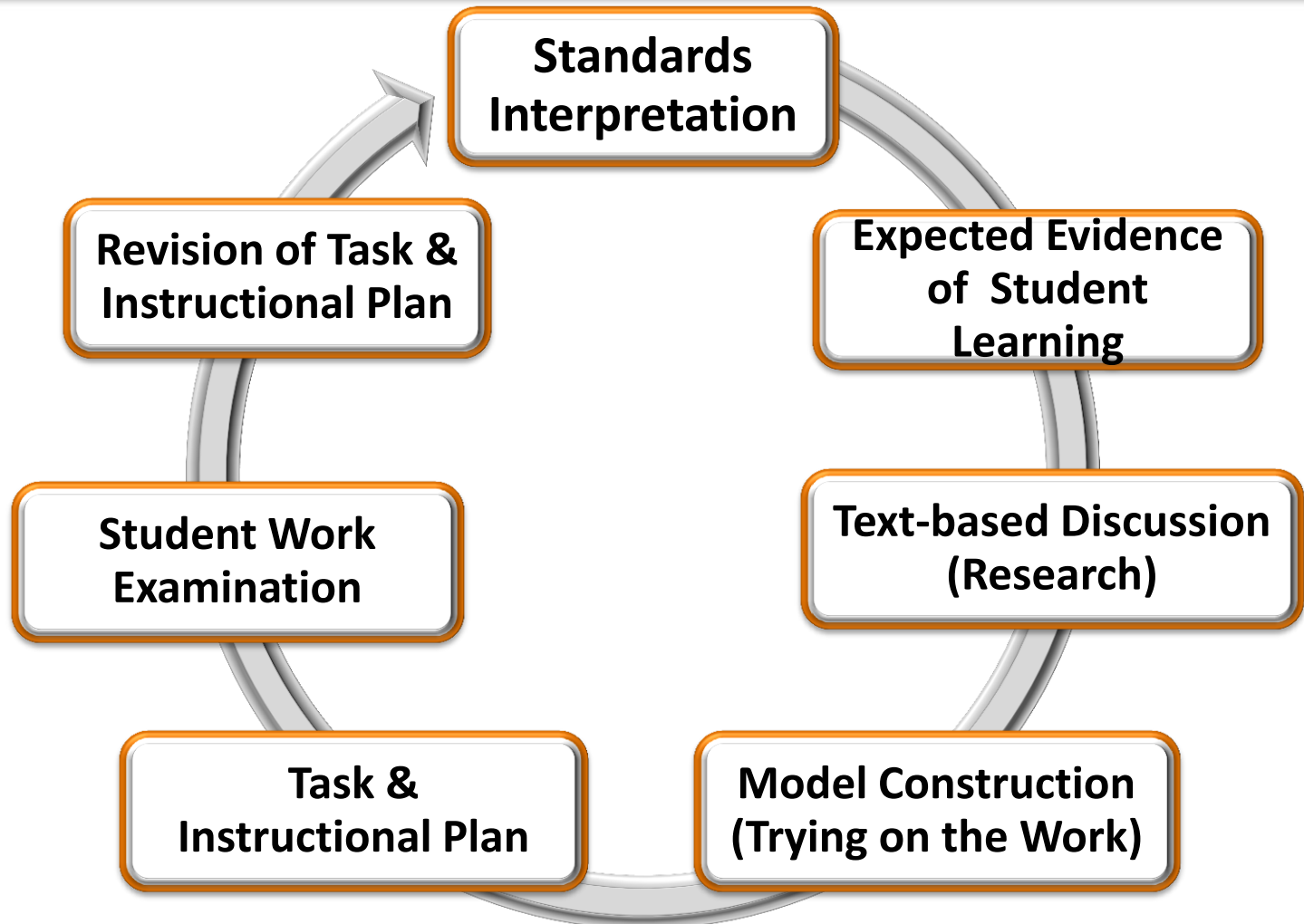


Common Core Standards Framework





Inquiry-Based Design Methodology





Agenda

- Student Work Examination
- Creating a Unit of Study
 - Standards Interpretation (Review of Enduring Understandings)
 - Expected Student Evidence (Knowledge and Application)
 - Guiding Questions

Break (~10:15am) – 10 minutes

- Assessments
- Lesson Sequence
- Teacher Post-Assessment

Lunch (~11:40) – 1 hour

- Lesson Planning and Presentations



Rubric for Reviewing Student Work

0	1	2	3
<p>Nothing Correct</p> <p>Or</p> <p>No Work Done</p>	<p>Correct answer with procedure and no conceptual explanation given</p> <p>Or</p> <p>Incomplete work or incorrect answer and some conceptual explanation given</p>	<p>Correct answer with procedure (for example, a written explanation that simply states the procedures used) and some conceptual explanation given</p> <p>Or</p> <p>Incorrect answer (for example, due to a minor computational error) with complete conceptual explanation</p>	<p>Correct answer with a complete and logical conceptual explanation, written in a clear and well-organized way</p>



Reviewing Student Work

- Use the rubric to look at your own student work.
 - Share with your table
 - What might you revise?
- We will put up student work for a Gallery Walk as you return from break.



Reflection Question #1

Using Your Yellow Evaluation Sheet:

- Fold paper in half
- Writing Prompt #1 –

What has been most useful for helping you understand math common core this year?



Creating a Unit of Study

- **Standards Interpretation**
 - Enduring Understandings
 - Knowledge and Application
- **Guiding Questions**
- **Assessments**
- **Lesson Sequence**
- **Lesson Planning**



Standards Interpretation

Grade 7

Ratios and Proportional Reasoning

7.RP.1,2,3

Analyze proportional relationships and use them to solve real-world and mathematical problems.

Take out and review:

- Standards – 7.RP.1,2,3
- “Understanding the Content Standards Matrix” from Session 3



Standards Interpretation

Enduring Understandings:

Your posters from Session 3 had these “Big Ideas/Enduring Understandings”

- ◉ Applying ratios & proportions in everyday examples, i.e. calculating tips, %, mpg, taxes, & discounts. (IB - ID exchange rates in currency) ... measurement ^{conversions}
- ◉ Understanding, distinguishing ratios vs. rates ... ratios are used when units are the same ... rates ... when units are dissimilar



Sacramento City Unified School District

Putting Children First

Conceptual Development

$$\begin{aligned} & \frac{1}{12} + \frac{3}{4} \\ &= \frac{1}{12} + \frac{9}{12} \\ &= \frac{16}{12} \times \\ &= \frac{10}{12} \end{aligned}$$



Standards Interpretation

Knowledge and Application

Your posters from Session 3 had these ideas for “Knowledge and Application”

- Identify the unit rate
- Use ratio language
- To know when it is not a proportion

- solve real-world problems
- whole/parts + percents
- convert measurement units

◉ Use a table to interpret graphs to illustrate proportional relationships



Guiding Questions

These questions will guide student inquiry:

- These are thought provoking questions that recur as students progress through their learning of this topic.
- These are framed to provoke and sustain student interest and inquiry.
- These do not yield a single answer, but produce different plausible responses.

Wiggins and McTighe *Understanding by Design*



Break

10 minutes



Assessments

“Try On” the assessments

Formative Interim Assessments (Mid-Unit Checks):

- MARS 2001 Grade 7 “The Poster”
- Illustrative Mathematics: 7.RP “Robot Races”

Post-Assessment (Culminating Task):

“Photos”



Types of Lessons

What types of lessons support students conceptual understanding of ratios and proportions?

E.g.: "You-We-I" (Phil Daro's Video)



Lesson Sequence

Example

Lesson 1: Unit Rates with Like/Different Units

Students will know...

- Unit rates associated with ratios of fractions can be measured in like or different terms
- Ratios and fractions do not have identical meanings; ratios are often used to make “part-to-part” comparisons, but fractions are not.
- The roles of “for every”, “for each,” and “per”

Students will be able to...

- Identify unit rates in representations of proportional relationships
- Compute unit rates from pairs of rational numbers
- Make equivalent ratio tables of unit rates with complex fractions and decimals



Teacher Post-Assessment

For the Math Common Core grant:

- Make your code (same as Session 1):
The first 2 letters of your mother's maiden name and one more than your birth date (*day* only)

Example

Maiden name: **Gold**

Birthday: March **24**, 1974

Code = GO25



Lunch

1 hour



Lesson Planning

- In small groups, create a complete lesson plan that fits in the lesson sequence.
- Use the “Lesson Planning Guide” to identify
 - A. the **focus** of your lesson,
 - B. the **evidence** of Math Practices 1, 4, and/or 6, and
 - C. the **learning experiences** that provide for rigor.



District Website

Download the Lesson Planning Guide

Go to www.scusd.edu/common-core

- Professional Development Dates and Materials
 - Mathematics Dates and Materials
 - Focus or Target
 - Today's Date



Lesson Planning Guide

A. Focus and Coherence

B. Evidence of Math Practices

C. Learning Experiences



Guidelines for Saving Your Lesson Plan

To save your Lesson Plan document:

- Using the flash drive provided
- Open the 7th grade folder
- Save with file name: **7.RP.Lesson#**

Ex: 7.RP.Lesson2A



Presentations

Share parts of your lesson with the group:

- Focus of the lesson
- Warm-up
- Formative Assessment



Reflection Question #2

Using Your Yellow Evaluation:

A. What support would you like to continue your learning of Common Core Math next school year?

or

B. Reflect on the CC Math learning you've done this year and complete the following sentence stems:

“I used to think...” and “Now I think...”



District Website

- Find these units of study on our district website at www.scusd.edu/common-core
- They will be available by June 14th



Summer Institute

Sign up for the summer institute:

Grades 6-8

June 24 – 28

\$500 stipend



Celebration/Evaluation

Please complete your evaluation

Thank you!!!

