



**Welcome Back!**

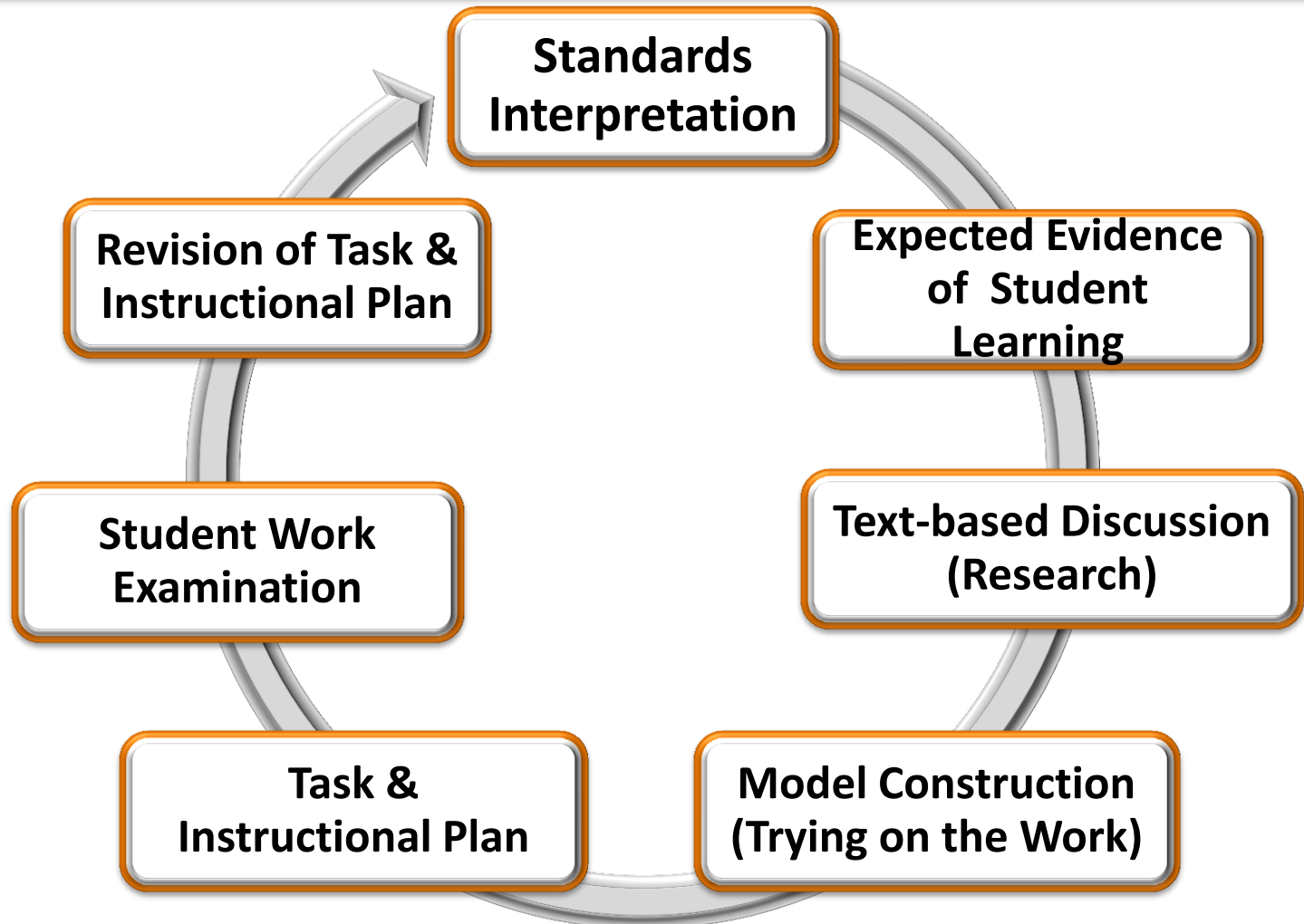
**C<sup>2</sup>S<sup>2</sup> – Mathematics**

**Grades 6-7**

**Session 2**



# Design Methodology





# Evidence of SMPs

*Review: SMPs*

#1: Making Sense of Problems and Persevere in Solving Them

#6: Attending to Precision

Think of an exemplary student response that provides evidence for Math Practice 1.

Is  $\frac{7}{8} < \frac{8}{9}$ ? Explain your reasoning



# Analyzing Student Work

Reviewing evidence of  
Standards of Mathematical  
Practices 1, 4 and 6



# Analyzing Work

- Work in partners or triads
- Look at the student work samples we provide for you
  - Complete the “evidence recording” template
- Create two piles:
  - 1) Samples that *have* evidence of SMP 1, 4, or 6
  - 2) Samples that *don't have* evidence of SMP 1, 4 or 6



# Analyzing Student Work

- Examining your student work
- Work in partners or triads
  - Complete the “evidence recording” template



# Analyzing Student Work

As a table group...

- Choose 1 or 2 pieces of student work that exemplifies evidence of progress towards Practice 1, 4 or 6
- Place a post-it on the student work that identifies *where* in the work students were making sense, persevering, and/or attending to precision



# Analyzing Student Work

- Gallery Walk
  - Place your 1-2 pieces of student work (with the post-its) on the wall
- As you are walking, take post-its...
  - Write questions and comments





# Break Time

**10 minutes**



# Trying on the math

Equivalent fractions with Algebra



# Instructional Shifts in Action

- **Focus:** What is the enduring mathematical understanding from this lesson? (share as a table/whole group)





# Instructional Shifts in Action

- **Coherence:** If students can understand equivalent fractions, how does that help them when they get to ratios and proportions? (Share as a table/whole group)





# Instructional Shifts in Action

- **Rigor (fluency, deep understanding, application, dual intensity):** What did the teacher do to allow students to gain an understanding of equivalent fractions?  
(share as a table/whole group)





# Lesson Planning Part A

- Use the enhanced lesson planning guide
- Complete section A
  - What is the focus of your lesson?
  - What should students have learned beforehand? (prior knowledge)
  - How will their new understanding enrich future learning?





**Lunch**

**1 hour**



# Shifts

## Read Shift: **Focus**

- Write 2-3 key ideas
- Write down what a teacher's **shift in focus** looks like in the classroom

- **WHOLE-GROUP SHARE OUT:**

In relation to the prompt for "Focus" on your "Shifts in Action" worksheet, what new understanding do you have?





# Shifts

## Read Shift: **Coherence**

- Write 2-3 key ideas
- Write down what a teacher's **shift in coherence** looks like in the classroom

- **WHOLE-GROUP SHARE OUT:**

In relation to the prompt for "Coherence" on your "Shifts in Action" worksheet, what new understanding do you have?



# Shifts

Read Shift: **Rigor (fluency, deep understanding, application, dual intensity)**

- Write 2-3 key ideas
- Write down what a teacher's **shift in rigor** looks like in the classroom

- WHOLE-GROUP SHARE OUT:

In relation to the prompt for "Rigor" on your "Shifts in Action" worksheet, what new understanding do you have?



# Answer getting vs. learning mathematics

USA:

- **How can I teach my kids to get the answer to this problem?**

High Performing Countries:

- **How can I use this problem to teach the mathematics of this unit?**

[Phil Daro]



# Teach at the speed of learning

- More time per concept
  - More time per problem
  - More time per student talking
- = less math problems per lesson

[Phil Daro]



# Lesson Planning Part B

- Complete section B of the lesson planning guide
- Be prepared to share out
- Share your expected evidence on a half-sheet of paper
  - Turn it in





# Lesson Planning Part C

- Complete section C of the lesson planning guide
- Be prepared to share out





# Reflection

- Please complete your evaluation

