Collecting diagnostic assessment/clinical interview data to individualize targeted mathematics instruction
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Independent Practice: Diagnostic assessment
Grades 3 – 5

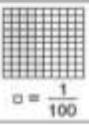**Steps as you begin a diagnostic assessment**
1. Choose your probe
2. Research misconceptions aligned with the Common Core State Standard
3. Read the problem to the student (to ensure reading the problem isn't interfering with math skills)
4. Observe
5. Ask probing questions
6. Have manipulatives on hand

Steps	Notes
Choose 1 assessment probe from the approved sources: Representing Decimals (Tobey & Fagan, 2014, p. 110 -115)	Which of the following are equivalent to 0.43?
Determine the correct and incorrect choices (Yes or No)	A 0.04 +0.3 B Number line C Base ten flat D 4/10 +3/100 E 4/3 F 3 tenths and 13 hundredths
Find aligning Common Core State Standard	4.NF.C.6 Understand decimal notation for fractions, and compare decimal fractions: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram
Research misconceptions on the assessment probe concept from the Kansas Flipbooks or the MN STEM Teacher Center	The difficulties students may have with this task (misconceptions): Source: 4th grade Kansas Flipbook (page 79) Source: MN STEM Teacher Center (misconceptions)

Anticipate why a student may choose an incorrect response / what might their reasoning be?	A 0.04 +0.3 B Number line E 4/3 C Base ten flat D 4/10 +3/100 F 3 tenths and 13 hundredths
Why did you choose this particular probe? What difficulties have you seen in your practice?	
What manipulatives you want to have available for the student to explain their reasoning? Math Learning Center Toy Theater Didax	
List one probing question you want to ask the student.	
Name one characteristic of a good diagnostic interviewer you want to be sure to use during this assessment.	
Interpreting the data What did you notice about the student's performance? Consider reasoning strategies, use of manipulatives, language, self-esteem, etc.	

Tobey, C. R., & Fagan, E. (2014). Uncovering student thinking about mathematics of the common core: Grades 3 – 5: 20 formative assessment probes. Thousand Oaks, CA: Corwin.

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	Circle Yes or No:	Explain your answer:
A. .04 + 0.3	Yes No	
B. 0.4 0.5	Yes No	
C. $\square = \frac{1}{100}$	Yes No	
D. $\frac{4}{10} + \frac{3}{100}$	Yes No	
E. $\frac{4}{3}$	Yes No	
F. 3 tenths and 13 hundredths	Yes No	