EMDI Questions/Recording Sheet: Grade 3

Name _____ **Teacher** _____ **Date** _____

Green = grade level prompts; Yellow = prior grade level prompts.

1_G3. Number Identification	**Materials:** visual fraction screening cards

A. Show circle card and ask, "Part of this circle has been shaded. What fraction is shown by the shaded part?" Follow up: "How did you figure out your answer?"

B. Show rectangle card and ask, "Part of this rectangle has been shaded. What fraction is shown by the shaded part?" Follow up: "How did you figure out your answer?"

C. Show number line card and ask, "What fraction can name the location shown by the point on the number line?" Follow up: "How did you figure out your answer?"

Abilities	**Challenges/Strategies**	**Notes**
Identifies	Unable to name fraction(s)	
□ $\frac{5}{8}$ (five-eighths)	□ $\frac{5}{8}$	
□ $\frac{2}{5}$ (two-fifths)	□ $\frac{2}{5}$	
□ $\frac{5}{6}$ (five-sixths)	□ $\frac{5}{6}$	

2_G3. Compare	**Materials:** screening cards, symbol cards symbol cards >, <, and =

Place comparison symbol cards and fraction comparison cards in front of the student one at a time, and say, "Choose the comparison symbol that shows the relationship between these two fractions." Once, the student has placed the symbol, ask, "Can you read this for me?" Follow up with, "How do you know?"

A. $\frac{1}{6}$ —— $\frac{1}{8}$

B. $\frac{1}{2}$ —— $\frac{2}{4}$

C. $\frac{3}{8}$ —— $\frac{5}{8}$

Abilities	**Challenges/Strategies**	**Notes**
Compares		
□ $\frac{1}{6} > \frac{1}{8}$ with sound justification	□ Whole number overgeneralization (looks for largest or smallest number)	
□ $\frac{1}{2} = \frac{2}{4}$ with sound justification	□ Compares correctly but unable to provide sound justification	
□ $\frac{3}{8} < \frac{5}{8}$ with sound justification	□ Other	

3_G3. Estimating Sums and Differences	**Materials:** screening cards expressions

A. Place 126 + 597 in front of student. "Do you think the answer to this problem is more than 700 or less than 700?" Follow up: "How did you figure out your answer?"

B. Place 1,354 - 426 in front of student. "Do you think the answer to this problem is more than 1,000 or less than 1,000?" Follow up: "How did you figure out your answer?"

Abilities	Challenges/Strategies	Notes
☐ 126+597 (**more**)	☐ Incorrect (+) estimate	
☐ sound justification	☐ Unable to justify (+)	
☐ 1,354-426 (**less**)	☐ Incorrect (-) estimate	
☐ sound justification	☐ Unable to justify (-)	

Estimating Sums and Differences (7_G2)	**Materials:** screening cards

A. Place 275 + 280 in front of student.

"Is the answer to this problem more than 500 or less than 500?"
Follow up: "How did you figure out your answer?"

B. Place 165 - 89 in front of student.

"Is the answer to this problem more than 100 or less than 100?"
Follow up: "How did you figure out your answer?"

Abilities	Challenges/Strategies	Notes
☐ Estimates more than 500 Rounds – Other	☐ Does not estimate (+)	
☐ Estimates less than 100. Rounds - 89>65- Other	☐ Only considers 100 place (+)	
	☐ Does not estimate (-)	
	☐ Only considers 100 place (-)	

4_G3. Add/Subtract Mental Math Strategies	**Materials:** screening cards
	available: paper and pencil

Place card in front of student. Ask, "What would your answer be?"

If needed, follow up: "How did you figure out your answer?"

A. 475 + 29   C. 918 - 120
B. 708 + 115   D. 490 – 155

Abilities	Challenges/Strategies	Notes
☐ **475+29= (504)** Model- partial sum – standard – compensation-other	☐ **475+29 =___** Strategy attempted:	
☐ **708 + 115= (823)** Model- partial sum – standard– compensation-other	☐ **708 + 115+ ___** Strategy attempted:	
☐ **918 – 120= (798)** Model- partial sum – traditional – compensation-other	☐ **918 – 120= ___** Strategy attempted:	
☐ **490 – 155= (335)** Model- partial sum – standard – compensation-other	☐ **490 – 155= ___** Strategy attempted:	

Addition & Subtraction Strategies (8_G2)	**Materials:** screening cards
	available: paper and pencil

Place card in front of student. Ask, "What would your answer be?"
If needed, follow up: "How did you figure out your answer?"

A. 46 + 35

B. 28 + 25 + 22

C. 87 - 39

Abilities	Challenges/Strategies	Notes
☐ **46 +35 = (81)** Model- partial sum – standard – compensation-other	☐ **46 +35 = _____** Strategy attempted:	
☐ **28+ 25+ 22 = (75)** Model- partial sum – standard I – compensation-other	☐ **28+ 25+ 22 = _____** Strategy attempted:	
☐ **87-39 = (48)** Model- partial sum – standard – compensation-other	☐ **87-39 = _____** Strategy attempted:	

5_G3. Multiplication Foundations   Materials: 5 x 7 array card and screen card

Place the array card on table while quickly covering all but the first row and column with the screen card. Ask, "How many dots are on this whole card?"

Follow up: "How did you figure out your answer?"

Abilities	Challenges/Strategies	Notes
☐ 5 X 7 = 35 ☐ sound justification	☐ Only counts dots showing ☐ Tries to touch each dot under screen cover while counting ☐ Understands combining equal rows but miscalculates	

6_G3. Multiplication/Division   Materials: screening cards
available: paper and pencil

Place card in front of student. Ask, "What is the missing number?"

If needed, follow up: "How did you figure out your answer?"

A. 8 x 9 = ___

B. ___ x 6 = 48

C. 42 ÷ 7 = ___

D. 5 = ___ ÷ 3

Abilities	Challenges/Strategies	Notes
Fluently: ☐ **8 x 9 = _(72)_** Known fact- other strategy ☐ **_(8)_ X 6 = 48** Known fact- other strategy ☐ **42 ÷ 7 = _(6)_** Known fact- other strategy ☐ **5 = _(15)_ ÷ 3** Known fact- other strategy	☐ **8 x 9 = ___** Strategies Attempted: Known fact- other strategy ☐ **___ X 6 = 48** Strategies Attempted: Known fact- other strategy ☐ **42 ÷ 7 = ___** Strategies Attempted: Known fact- other strategy ☐ **5 = ___ ÷ 3** Strategies Attempted: Known fact- other strategy	

7_G3. Multiplication: Place Value

Materials: screening cards
available: paper and pencil

Place card in front of student. Ask, "What would your answer be?"
If needed, follow up: "How did you figure out your answer?"

A. 5 x 30

B. 40 x 6

Abilities	Challenges/Strategies	Notes
☐ **5 x 30 = (150)** Strategy:	☐ **5 x 30 = __** Strategies Attempted:	
☐ **40 x 6 = (240)** Strategy:	☐ **40 x 6 = __** Strategies Attempted:	

8_G3. Mult./Div. Word Problems
Word Problems

Materials: screening cards; paper and pencil
available: counters, grid paper

Have students read each question aloud and solve. If the student does not say the unit, ask a follow up question. If needed, ask, "How did you figure out your answer?"

A. "There are 4 boxes. Each box has 6 books. How many books are there in all?"
B. "If 6 carrots are shared equally with 3 children, how many carrots will each child get?"
C. "A rectangle has sides that are 5 cm and 8 cm long. What is the area of this rectangle?"

Abilities	Challenges/Strategies	Notes
☐ **4 x 6 = 24** ☐ Correct unit (books) Strategy:	☐ **4 x 6 = __** Strategy attempted: ☐ Incorrect unit	
☐ **6 ÷ 3 = 2** ☐ Correct unit (carrots) Strategy:	☐ **6 ÷ 3 = __** Strategy attempted: ☐ Incorrect unit	
☐ **5 x 8 = 40** ☐ Correct unit (square cm) Strategy:	☐ **5 x 8 = __** Strategy attempted: ☐ Incorrect unit	