Elementary Number Talk Planning Tool

Purpose: To support students in developing mathematical habits (critiquing/debating, making connections, generalizing, questioning, exploring multiple pathways, exploring stuck points and misconceptions) to develop numerical reasoning and computational fluency (accuracy, efficiency, and flexibility).

Key understandings for computational fluency:

- Numbers are composed of smaller numbers
- Numbers can be composed and decomposed in numerous ways
- Mathematical patterns help us make connections and solve problems with increasingly larger numbers
- A deep understanding of numbers within 10 supports fluency with numbers to 100 and beyond
- Numbers are organized into groups known as place value in a base-10 system
- The concept of part-part-whole is foundational to many mathematical concepts
- Relationships between operations builds fluency

Grade Level:		Concept/Strategy Focus: _		
Sequenced Problems (String) Select 2-3 related problems that build on one another		Potential Strategies and Tools What mental math strategies do you anticipate students will use? How will you visually represent strategies on the board?		
		Potential Strategies (Use 2-3)	Possible Tools/Representations	
EXAMPLE	30 + 35 29 + 35 29+37	Compensation (make 10), friendly-numbers, decompose into 10's and 1's, count on, standard algorithm	Number line, algorithm, base-10 blocks/sketch, number bond, equation, 10-frames, number rack	
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				

Guiding Questions/Prompts:

- Why?
- Did anyone get a different answer/use a different strategy?
- How could we model that?
- What strategy did ____ use?
- How can you prove that your answer is correct?
- What patterns do you see?
- How are these problems related?
- How can you use _____ to help you ____?
- What do you know that could help you solve this problem more efficiently?
- What would happen if?
- How is your answer similar/different from 's?
- What generalizations can you make?
- Which strategy is the most efficient (for you currently)? Why?
- Which strategy do you think you would like to try next time? Why?
- Will always work? Why or why not?
- What questions do you have?
- What was challenging about this problem?

Sequenced Strategies (Consider how you can support students in moving from one strategy to the next)

Addition: • Counting all • Counting on • Doubles • Making 10 • Doubles +/- 1 (near doubles) • Combination I know (fact family) • Decomposing into 10's and 1's (place value) • Friendly numbers • Compensation • Standard algorithm	 Subtraction: Crossing out and counting all Counting back Counting up to find difference Using related facts Decompose by place value Compensation Friendly jumps Standard algorithm
Multiplication:	Division:
 Repeated addition Skip counting Distributive property Related/Known facts Partial products Standard algorithm 	 Repeated subtraction Sharing method Related/known facts Distributive Partial quotients Standard algorithm

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Additional Notes: