

A Number Sense Approach to Multiplication Fact Mastery – School-wide

Jan Gillespie

“Friendliness with Numbers” and X fact fluency: Can they be achieved together?

Activities for learning facts using reasoning and algebraic properties: Can we use everyday language as a bridge from concrete to abstract?

Everyday language for \times (“groups of”)

“Presto Chango”: Using the commutative property

Everyday language for \div (“packaging” vs “sharing”)

“See and Talk About” array flash cards – 2 min. practice

“Break It Apart”: Using the distributive property

(What do you see? Using \times facts you know to learn new facts: $2x$ and $4x$, $3x$ and $6x$, $4x$ and $8x$, $10x$ and $9x$, $5x$ and $7x$)

Making the connection between \times , \div , and denominators

Fact of the Week: School-wide campaign to hit the hardest facts

Assessment and Tracking Student Progress:

1 to 1 Interview Assessments – How do I fit it in?

Students taking ownership – Student Progress Record

I know my _____’s” Sign-up Chart

An option for pacing: Connecting to Monthly *Calendar Math* Routines:

Multiple Markers on Class Counting Tapes

Multiple Pattern Pieces on Class Calendars

Monthly Measurement

Establishing School-wide Expectations and Setting up for Success

“Children should master the basic facts of arithmetic that are essential components of fluency with paper-and- pencil and mental computation and estimation. At the same time, however, mastery should not be expected to soon. Children will need many exploratory experiences and the time to identify relationships among numbers and efficient thinking strategies to derive the answers to unknown facts from known facts. Practice designed to improve speed and accuracy should be used, but only under the right conditions, that is, practice with a cluster of facts should be used only after children have developed an efficient way to derive the answers to those facts.” **NCTM Standards - Whole Number Computation.**

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