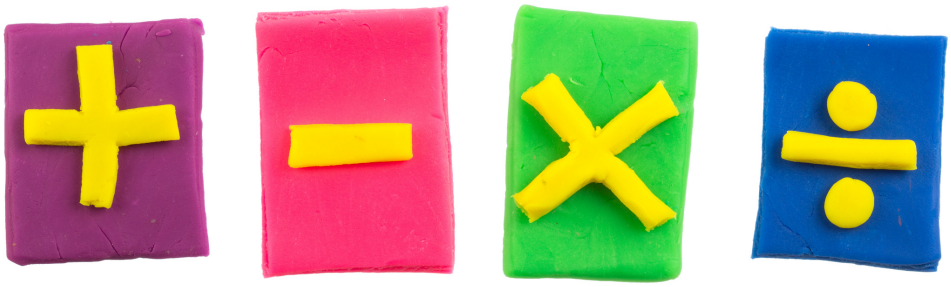

What does it mean to be fluent with math facts?

Information for families and caregivers

DID YOU KNOW?
Children are fluent when they demonstrate:

Accuracy
- Correctly solving a problem

Flexibility
- The ability to think about a problem in more than one way and to adapt or adjust thinking as necessary

Efficiency
- Solving a problem in a reasonable amount of time

MYTH: Math today is so different

FACT: While the math itself hasn't changed, the focus of math instruction has shifted to ensure students are actively engaged in developing an understanding of the skills and concepts. Representing concepts using models to develop strategies and exercising critical thinking is a much more effective way to build understanding.

MYTH: Memorization is the best way to master basic facts.

FACT: Children may have memorized basic facts, however, they may not have a strategy to solve the particular fact. Memorized facts can be forgotten, but when a strategy is understood, children hang on to it forever.

MYTH: Children who have memorized the facts won't be challenged.

FACT: The goal is not to memorize facts, but to develop a range of strategies to apply to more complex concepts such as multi-digit computations, decimals and fractions. Developing strategies and an understanding of when to use these appropriately, asks children to think at higher levels.

MYTH: Timed tests help children master facts.

FACT: Timed tests do not assess fluency, only accuracy and efficiency. As well, research tells us that timed tests can lead to the development of anxiety around mathematics.

Questions to support fact fluency conversations with children

- How did you solve it?
- How do you know it is correct?
- Is there another way you could solve it?
- If someone didn't know the answer to ____, how would you help them to figure it out?
- What strategy can you use to find that fact?
- How is ____ like ____? How are they different? (example: How is 2 x 7 like 4 x 7?)

Halifax
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