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Skill: Reinforcement of Math Facts

Often students have difficulty with math because of their unfamiliarity with their math facts. Math facts are basic calculations that children can learn in order to help them do arithmetic more quickly. By committing math facts to memory, they can be recalled fluently so attention is freed for working on higher order math functions. NJ Learning Standards for Mathematics. As you may be able to gather from looking at the standards, many skills build on each other from grade to grade, which is why math fact fluency is so important. Here are some learning standards you should be able to do at the end of each grade level and ways you can support your child at home. The standards listed lend itself to math fact fluency, but there are many other standards (See link above) for math in grades K-5.

Kindergarten-Students should be able to:

- Count to 100 by ones and by tens
    - Practice simple addition and subtraction
    - Having your child count objects at home
    - Have your child set the dinner table and figure how many tables settings are required
- Write to 20
    - Practice writing their numbers (proper formation) at home in sand, shaving cream, or on paper
- Count to answer "how many?" questions
    - During board games or other games ask your child questions to check on their number sense

First Grade-Students should be able to:

- Use addition and subtraction within 20 to solve word problems
    - Utilize flashcards that have computation up to 20
- Apply properties of operations as strategies to add and subtract
    - Review properties at home with your child
- Add and subtract within 20, demonstrating fluency for addition and subtraction within 10
- Understand that the two digits of a two-digit number represent amounts of tens and ones
    - When grouping at home explain ones and tens
- Count to 120 by ones and by tens
    - Practice simple addition and subtraction
    - Having your child count objects at home
    - Have your child set the dinner table and figure how many tables settings are required

Second Grade-Students should be able to:

- Have an understanding of addition to develop fluency with addition and subtraction within 100
    - Understanding numbers to 100
- Fluently add and subtract within 20 using mental strategies
    - Utilize flashcards that have computation up to 20

- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
    - When grouping at home explain ones, tens, and hundreds
- Count within 1000; skip-count by 5s, 10s, and 100s
- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
    - Splash Math, Xtra Math, Freckle programs that have students practice their math addition and subtraction facts up to 100
- Explain why addition and subtraction strategies work, using place value and the properties of operations
    - Understanding the vocabulary of addition, subtraction, and various properties will help your child with word problems

Third Grade-Students should be able to:

- Develop an understanding of fractions, beginning with unit fractions
    - Begin to have your child do recipes at home that require fractions
- Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities
    - Laying out multiples with your child and explaining how many groups and how many items are in each group
- Apply properties of operations as strategies to multiply and divide.2 Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known
    - Understanding the vocabulary that accompanies multiplication and division
- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division
    - Splash Math, Xtra Math, Freckle programs that have students practice their math multiplication and division facts up to 100

Fourth Grade-Students should be able to:

- Develop understanding of fraction equivalence and operations with fractions
    - Understanding the vocabulary that accompanies fractions
- Multiply or divide to solve word problems involving multiplicative comparison
    - Utilizing their knowledge of multiplication and division and applying that knowledge to word problems
- Find all factor pairs for a whole number in the range 1–100, Fluently add and subtract multi-digit whole numbers using the standard algorithm
    - Your child should have a strong math fact fluency in addition, subtraction, multiplication, and division at this time. Continue to utilize flashcards, Splash Math, Xtra Math, and Freckle to make sure that this fluency is automatic

Fifth Grade-Students should be able to: (Please refer to previous grades for ideas, but the understanding is that students should have a secured math fact fluency in addition, subtraction, multiplication, and division by the time they are in 5th grade)

- Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used
- Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. Students should also be able to solve all four operations and fluently add, subtract, multiply, and divide fractions.

Here are some other strategies:

- Practicing math at the grocery store while buying items
- Using fractions while cooking or baking at home
- Keeping math manipulatives on hand and engaging during playtime
- Play family learning games that include math
- Building a daily or nightly routine that features frequent math practice

Some websites for strategies:
https://www.kidsacademy.mobi/storytime/why-is-math-fact-fluency-important/

https://www.weareteachers.com/15-fun-ways-to-practice-math/

https://www.scholastic.com/parents/school-success/learning-toolkit-blog/making-math-facts-fun.html

https://luckylittlelearners.com/35-fool-proof-ways-to-master-math-fact-fluency/