Dear Parents,
We will begin our next unit of study in math soon. The information below will serve as an overview of the unit as you work to support your child at home. If you have any questions, please feel free to contact me. I appreciate your on-going support.
Sincerely,
Your Child's Teacher

| Unit Name: |
| :---: |
| **Adding and Subtracting Fractions** |

## Common Core State Standards:

**5.NF.1** 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. *For example, 2/3 + 5/4 = 8/12 15/12 = 23/12. (In general, a/b c/d = (ad bc)/bd.)*

**5.NF.2** Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.*

**5.NF.3** Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*

## Essential Vocabulary:
- common denominator
- ungroup
- regroup
- area model
- grid
- number line

## Unit Overview:

This unit builds on adding fractions with like denominators from fourth grade. In fifth grade, students must find a common denominator by finding the product of both denominators. They are expected to multiply the denominators to get a common denominator. Students are not expected to find the lowest common denominator in fifth grade. Students will focus on using visual fraction models to find a common denominator prior to using the algorithm. Students are expected to understand that fractions are numbers that lie between whole numbers on a number line. Students will use benchmark fractions (0, ½ , 1) to estimate. Estimation strategies for adding and subtracting fractions are the same as those used when working with whole numbers. Fifth grade students will connect fractions with division, understanding that $5 \div 3 = 5/3$.

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## Strategies/Skills:

Students will use grids, number lines, and area models to add and subtract fractions with unlike denominators.   Students will focus on visual models and work towards using the standard algorithm. Students should conclude that multiplying the denominators will provide a common denominator.

- Grids
- Number lines
- Area models

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## Video Support:

Video support can be found on The WCPSS Academics YouTube Channel.

- http://tinyurl.com/WCPSSAcademicsYouTube
  - ES 5 Math Adding Fractions w/ Area Models
  - ES 5 Math Adding Mixed Numbers w/ Area Models
  - ES 5 Math Adding Fractions w/ Number Lines
  - ES 5 Math Subtracting Fractions w/ Area Models
  - ES 5 Math Subtracting Mixed Numbers w/ Area Models
  - ES 5 Math Subtract Fractions with Number Lines

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## Additional Resources:

If you have limited/no internet access, please contact your child's teacher for hard copies of the resources listed in this document.

- NCDPI Unpacking Document: 5th Grade Unpacking Document