



Falcon International School

Course Description

Third Grade

Mathematics

In third grade, students use a variety of strategies to solve addition, subtraction, multiplication and division facts using 2-3 digit numbers. They deepen their understanding of problem solving skills while studying plane and solid figures, measurement, fractions, graphing and place value. Students engage in hands-on activities to expand their math vocabulary, reasoning and analyzing skills and their ability to study relationships in concrete ways. They use various learning modalities via manipulatives, technology and math games.

After successfully completing this class students will be able to...

- Understand place value
- Understand how place value helps with addition and subtraction
- Understand how to round numbers
- Understand numbers can change after adding and subtracting
- Understand the relationship between addition and multiplication
- Understand how multiplication is related to patterns
- Understand how multiplication and division are related
- Understand the importance of perimeter, area and volume
- Understand the beginning concepts of probability

Course Content

1. Locate, label, compare and order whole numbers up to 10,000 using place value models, number lines and number patterns (including multiples of 100 and 1,000).
 2. Identify the number that is 100 and 1,000 more or less than a given number up to 10,000 using place value models, pictures and number lines.
 3. Round three- and four-digit numbers to the nearest hundred and thousand using place value models, number lines and number patterns.
 4. Represent three- and four-digit numbers up to 10,000 in expanded forms, e.g., $5,472 = (5 \times 1,000) + (4 \times 100) + (7 \times 10) + (2 \times 1)$, and regrouped forms, e.g., $5,472 = (4 \times 1,000) + (14 \times 100) + (6 \times 10) + (12 \times 1)$. Use the forms to support computational strategies.
1. Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations, e.g., $56 + \Delta = 100$ and $3 \times 5 = 9 + 6$.

Demonstrate understanding of equivalence as a balanced relationship of quantities by using the equals sign to relate two quantities that are equivalent and the inequality symbols, $<$ and $>$, to relate two quantities that are not equivalent ($23 \times 5 > 23 \times 2$)

Solve problems and demonstrate an understanding of equivalence using the equals sign in number sentences that reflect the commutative and associative properties of addition and multiplication of whole numbers, e.g. $3 \times 5 = 5 \times 3$.

3. Solve problems involving addition and subtraction of two- and three-digit whole numbers and money amounts up to \$100.00 with and without regrouping, using a variety of strategies, including models.

4. Create and solve addition and subtraction word problems by using place value patterns and algebraic properties (commutative and associative for addition).

6. Determine when an estimate for a problem involving two- and three-digit numbers is appropriate or when an exact answer is needed.

7. Use a variety of estimation strategies to determine and justify the reasonableness of an answer to a computation or word problem involving addition and subtraction of two- and three-digit whole numbers and money amounts up to \$100.00.

8. Determine when a strategy will result in an overestimate or an underestimate in problems involving two- and three-digit numbers.

9. Determine and compare the value of sets of coins and write the values using decimal notation, e.g., two quarters = 50 cents or \$0.50 (50 of 100 cents in a dollar) and is less than two quarters, two dimes and a nickel or \$0.75.

10. Determine, compare and write the value of money amounts up to \$100.00 and identify equivalent ways to represent a given amount of money, including combinations of pennies, nickels, dimes, quarters and half dollars, e.g., \$0.25 can be five nickels, two dimes and one nickel or one quarter.

1. Use calendar and clocks to plan and sequence events and identify events and times as occurring in the a.m. and p.m.

1. Recall the multiplication and division facts for 1, 2, 3, 4, 5 and 10.

2. Write multiplication and division story problems to match a given multiplication or division number sentence and vice versa; solve the problems and justify the solution.

5. Solve problems involving the multiplication and division of two- and three-digit numbers by one digit (2, 3, 4, 5 or 10) with models, arrays and pictures of sets.

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