

**Grace Christian Academy
Course Description**

Course Title: Math - 6th Grade
Course Length: Full School Year

Class Meetings: 4x/weekly (Block Schedule)
Textbook: Fundamentals of Math for Christian Schools
BJU Press

General Course Description: A review of whole numbers, decimal fractions and common fractions using addition, subtraction, multiplication, and division. Place value, estimation, ratio proportion and percent will also be covered. A survey of geometry and an introduction to pre-algebra will be given

Biblical Principles:

Mathematical study should result in a greater appreciation of the works of God and His creation. (Psalms 8:3-9, Colossians 1:16-17)

God cares about numbers. He knows them all. He has recorded many for information. (Psalms 147:4, Luke 12:7)

General Course Content:

1st Quarter:

Addition, subtraction, multiplication and division of whole numbers
Addition and subtraction of decimal fractions

2nd Quarter:

Multiplication and division of decimal fractions
Number Theory – developing fractions
Addition and subtraction of fractions

3rd Quarter:

Multiplication and division of fractions
Survey of Geometry and study of perimeter, area and volume
Ratio, proportion and percent

4th Quarter:

Equations
Integers
Measurement
Statistics

Related Student Objectives/Learner Outcomes:

The student will learn to:

1. Read and write whole numbers through billions
2. Compare and order whole numbers, decimals, fractions, and mixed numbers
3. Round whole numbers, and decimals to a specified place
4. Identify and use the properties of addition and multiplication
5. Estimate sums, differences, products and quotients of whole numbers, decimals and fractions
6. Add, subtract, multiply and divide whole numbers, decimals, fractions, and mixed numbers
7. Write repeated factors in exponential forms
8. Read and write decimals through millionths
9. Write numbers expressed in standard notation in scientific notation

10. Identify and write symbols naming basic geometric figures
11. Measure angles using a protractor
12. Classify angles according to their measure
13. Identify perpendicular lines, parallel lines, vertical angles and corresponding angles
14. Classify polygons according to the number of their sides
15. Classify triangles according to the measures of their sides or angles
16. Find the measure of the third angle when two angle measures are given
17. Identify special quadrilaterals
18. Find the measure of the fourth angle when three angle measure are given
19. Identify and use the parts of a circle
20. Identify congruent figures
21. Identify corresponding parts of congruent figures
22. Test numbers for divisibility by 2, 3, 4, 5, 6, 9, 10
23. Determine whether a number is prime or composite
24. Write the prime factorization of a number
25. Find the greatest common factor of two numbers
26. Find the least common multiple of two or three numbers
27. Determine whether two fractions are equivalent
28. Write equivalent fractions
29. Write fractions in lowest terms
30. Write improper fractions as mixed numbers or whole numbers and mixed numbers as improper fractions
31. Write fractions or mixed numbers as decimals and to write decimals as fractions or mixed numbers
32. Write terminating and repeating decimals for given fractions
33. Simplify numerical expressions using the rules for order of operations
34. Evaluate algebraic expressions for given replacement of the variable
35. Write numerical and algebraic expressions for word phrases that involve addition, subtraction, multiplication and division
36. Write equations for word sentences
37. Solve addition, subtraction, multiplication and division equations using the inverse operation
38. Write ratios, equal ratios and unit rates
39. Determine whether two ratios form a proportion
40. Solve proportions using cross multiplication
41. Write ratios as percents and percents as lowest term ratios
42. Write a percent as a decimal and a decimal as a percent
43. Write a percent as a lowest term fraction and a fraction as a percent
44. Find the percent of a number
45. Calculate sales tax on a purchase and calculate total cost
46. Determine the amount of discount on a purchase and the sale price of a purchase
47. Find the percent one number is of another number
48. Find the percentage of change
49. Use formulas to compute simple interest and find the balance in a saving account
50. Find the total number when a percent of it is known
51. Find the amount of commission, the amount of sales, and the commission rate
52. Write, compare, and order integers
53. Add, subtract, multiply and divide integers

54. Solve equations using positive and negative numbers
55. Locate and graph ordered pairs on a coordinate plane
56. Find the perimeter of a polygon and circumference of a circle
57. Find the area of a rectangle, square, parallelogram, triangle, and circle
58. Identify types and parts of three-dimensional figures
59. Find surfaces area of a prism of pyramid
60. Find volume of rectangular and triangular prisms or pyramids
61. Rename metric units of length, capacity and mass in larger or smaller units
62. Rename customary units of length, capacity and weight in larger or smaller units
63. Add or subtract customary units of length, capacity and weight
64. Find range, mean, median and mode for a set of data
65. Read and interpret bar graphs and line graphs

Presentation Methods:

- Lecture
- Class discussions
- Demonstrations
- Teacher modeling procedure
- In class question and answer time
- Student modeling
- Chalkboard work

Evaluation and Grading Methods:

- Homework - 50%
- Quizzes and Tests - 50%
- Grading Scale as follows:

90-100 %	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Enrichment and /or Supplemental Activities:

- Real life application of math skills
- Mathematical games
- Math puzzles