### **Course Description**

### Sixth Grade

### **Mathematics**

**Philosophy Statement:** In mathematics God has blessed His creation with the ability to count, tell time, and make change. This is not an accident; it is a reflection of God's goodness. As students learn to appreciate God's gift of numbers and use addition, subtraction, multiplication and division they should concurrently develop a heart of praise and thanksgiving in their study of mathematics. In mathematics the student will see the order and truth that God has created. Just as the bible says "precept upon precept, line upon line... (Isaiah 28:10) students will build concept upon concept in mathematics.

**Course Objective:** The students will receive instruction in and demonstrate an understanding of basic mathematical functions and problem solving strategies involving the areas of addition, subtraction, multiplication, and division of whole numbers, decimals, fractions, integers, ratios and proportion, and geometry.

Textbook: Math 6 (ACSI)

### Materials:

Student textbooks Jumpstarters for Math (Mark Twain Media, Inc.) Practice and enrichment worsheets Manipulative materials Calculators **Calculators Time Allotment:** 50 minute classes, 5 days per week **Course Content:** Place value to billions and hundred thousandths Addition and subtraction of whole numbers to billions Additions and subtraction of decimals to hundred thousandths

Multiplication and division of whole numbers to billions

Multiplication and division of decimals to hundred thousandths

Multiplication and division of fractions and mixed numbers

Customary and metric measurement

Addition, subtraction, multiplication, and division with integers

Ratio, Proportion, and Percent

Geometry: Plane and Three Dimensional Figures

Geometry: Perimeter, Area and Volume

Statistics, Graphing and Probability

Time and Money consumer applications

### Areas to be Evaluated:

- Class participation
- Homework assignments
- Tests and quizzes
- Group activities
- Projects

### **Additional Activities:**

- Projects for geometry, statistics and probability, and graphing will be assigned throughout the year to complement the course of study and to make a practical application of mathematical concepts.
- Exceptional students will be asked to participate in Math Olympics, a judged interscholastic ACSI event for reasoning and computation skills.
- Struggling students and students desiring additional help will be invited to lunchtime tutoring sessions.

### **Course Description**

### **Seventh Grade**

### **Mathematics**

**Philosophy Statement:** In mathematics God has blessed His creation with the ability to count, tell time, and make change. This is not an accident; it is a reflection of God's goodness. As students learn to appreciate God's gift of numbers and use addition, subtraction, multiplication and division they should concurrently develop a heart of praise and thanksgiving in their study of mathematics. In mathematics the student will see the order and truth that God has created. Just as the bible says "precept upon precept, line upon line... (Isaiah 28:10) students will build concept upon concept in mathematics.

**Course Objective:** The students will receive instruction in and demonstrate an understanding of basic mathematical functions and problems solving strategies involving the areas of addition, subtraction, multiplication, and division of whole numbers, decimals, fractions, integers, ratios and proportion, and geometry.

Textbook: Mathematics A (ACSI) Intermediate Course

### Materials:

Student textbooks

 Jumpstarters for Math (Mark Twain Media, Inc.)

 Practice and enrichment worksheets

 Manipulative materials

 Calculators

 **Time Allotment:** 50 minute classes, 5 days per week

 **Course Content:** 

 Place value to billions and hundred thousandths

 Addition and subtraction of whole numbers, decimals and fractions

 Multiplication and division of whole numbers, decimals and fractions

 Customary and metric measurement

 Ratio, Proportion and Percent

 Geometry: Plane and Three Dimensional figures

 Geometry: Simple constructions

Geometry: Perimeter, Area, and Volume

Statistics, Graphing and Probability

Solving Equations and Inequalities

Addition, Subtraction, Multiplication, and Division with Integers

### Areas to be Evaluated:

- Class participation
- Homework assignments
- Tests and quizzes
- Group activities
- Projects

### **Additional Activities:**

- Projects for geometry, statistics and probability, and graphing will be assigned throughout the year to complement the course of study and to make a practical application of mathematical concepts.
- Exceptional students will be asked to participate in Math Olympics, a judged interscholastic ACSI event of reasoning and computation skills.
- Struggling students and students desiring additional help will be invited to lunchtime tutoring sessions.

### **Course Description**

## **Eighth Grade**

### **Pre-Algebra**

**Philosophy Statement:** In mathematics God has blessed His creation with the ability to count, tell time, and make change. This is not an accident; it is a reflection of God's goodness. As students learn to appreciate God's gift of numbers and use addition, subtraction, multiplication and division they should concurrently develop a heart of praise and thanksgiving in their study of mathematics. In mathematics the student will see the order and truth that God has created. Just as the bible says "precept upon precept, line upon line... (Isaiah 28:10) students will build concept upon concept in mathematics.

**Course Objective:** The students will receive instruction in and demonstrate an understanding of fundamental elements using expressions, equations, inequalities, integers, geometry, statistics, and graphing to solve math problems

Textbook: Pre-Algebra for Christian Schools (Bob Jones University Press)

### Materials:

Student textbooks
Jumpstarters for Pre-Algebra (Mark Twain Media, Inc)
Practice and enrichment worksheets
Geometric and algebraic manipulatives
Calculators **Time Allotment:** 50 minute daily classes, 5 days per week **Course Content:**Expressions and Equations (adding, subtracting, multiplying, and dividing)
Decimals – (Place Value, adding, subtracting, multiplying, and dividing)
Metric System
Integers and Rational Numbers (adding, subtracting, multiplying and dividing)
Equations and Inequalities
Ratios, Proportions, and Percent
Geometry: Basic Figures, Perimeter, Area, and Volume, Special Triangles
Statistics and Probability

### Square Roots

Graphing and Functions

### Areas to be evaluated:

- Class participation
- Homework assignments
- Tests and quizzes
- Group activities
- Project

### **Additional Activities:**

- Projects for geometry, statistics and probability, and graphing will be assigned throughout the year to complement the course of study and to make a practical application of mathematical concepts.
- Exceptional students will be asked to participate in Math Olympics, a judged interscholastic ACSI event for reasoning and computation skills.
- Struggling students and students desiring additional help will be invited to before lunchtime tutoring sessions.

# COURSE DESCRIPTION EIGHTH GRADE ALGEBRA 1

**Philosophy Statement:** In mathematics God has blessed His creation with the ability to count, tell time and make change. This is not an accident; it is a reflection of God's goodness. As students learnt to appreciate God's gift of umbers and use of addition, subtraction, multiplication, and division, they should concurrently develop a heart of praise and thanksgiving in their study of mathematics. In mathematics the student will see the order and truth God created. Just as the Bible says "precept upon precept, line upon line…"(Isaiah 28:1), students will build concept upon concept in mathematics.

**Course Objective:** The students will receive instruction in and demonstrate the ability to perform functions and problem solving in the areas of real numbers, integers, equations and inequalities, polynomials, radicals, quadratic equations, and rational expressions and equations.

Textbook: Algebra I for Christian Schools (Bob Jones University Press)

### Materials:

Student textbooks EOC Coach Workbooks Practice and enrichment worksheets Algebraic manipulatives Graphing calculators

Time Allotment: 50 minute daily classes, 5 days per week

### **Course Content:**

Integers: with operations and exponents Operations with Real Numbers Order of operations with Real Numbers Simplifying algebraic expressions Solving equations and inequalities Relations, Functions, and Graphs Systems of Equations and Inequalities Polynomials: Operations and Factoring Radicals: Operations and Pythagorean Theorem Quadratic Equations and Functions Rations Expressions and Equations

### Areas to Be Evaluated:

- \* Class participation
- \* Homework assignments
- \* Test and quizzes
- \* Group activities

\* Projects

\* EOC State Test in May

#### **Additional Activities:**

\*Projects for geometry, statistics and probability, and graphing will be assigned throughout the year to complement the course of study and to make a practical application of mathematical concepts.

\*Exceptional students will be asked to participate in Math Olympics, a judged interscholastic ACSI event for reasoning and computation skills.

\*Struggling students and students desiring additional help will be invited to lunchtime tutoring sessions.