Course Title: GRADE SIX MATHEMATICS-A	**Course Description**
Course No. N/A **Grade level**: 6 **Text and Resources**: A. *Grade 6, Harcourt Math -California Edition*; Harcourt Brace *B. Working With Numbers, Level F;* Steck-Vaughn C. *Strength in Numbers, Algebra, Level 6*; Steck-Vaughn D. *Basic Math Skills*; AGS Publishing	**Course Duration**: *One Semester **Credit Value**: One Course
Course Content: Key Content Standards and Course Objectives 1. **Number Sense:** Students compare and order fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages. 2. **Number Sense:** Students calculate and solve problems involving addition, subtraction, multiplication, and division of rational numbers. 3. **Algebra and Functions:** Students write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results. 4. **Algebra and Functions:** Students analyze and use tables, graphs, and rules to solve problems involving rates and proportions. 5. **Algebra and Functions:** Students investigate geometric patterns and describe them algebraically. 6. **Measurement and Geometry:** Students deepen their understanding of measurement of plane and solid shapes and use this understanding to solve problems. 7. **Measurement and Geometry:** Students identify and describe the properties of two-dimensional figures. 8. **Statistics, Data Analysis, and Probability:** Students compute and analyze statistical measurement for data sets. 9. **Statistics, Data analysis, and Probability:** Students use data samples of a population and describe the characteristics and limitations of the samples. 10. **Statistics, Data analysis, and Probability:** Students determine theoretical and experimental probabilities and use these to make predictions about events. 11. **Mathematical Reasoning:** Students make decisions about how to approach problems. 12. **Mathematical Reasoning:** Students use strategies, skills, and concepts in finding solutions. 13. **Mathematical Reasoning:** Students move beyond a particular problem by generalizing and applying it to other situations.	The focus of this course will be the grade 6 mathematics standards. Students should demonstrate progress toward mastery of the four arithmetic operations with positive and negative numbers, whole numbers, fractions, and decimals. Students should begin to apply that knowledge to statistics and probability as well as the concepts of mean, median, and mode of data sets and how to calculate the range. Students will learn how to compute ratios, proportions, and percentages. They will understand pi, and the formulas for the circumference and area of a circle. Letters for numbers in formulas involving geometric shapes and in ratios to represent an unknown part of an expression will be introduced. *Open entry/open exit
Methods of Study	**Evaluation of Performance Standards**
1. Students will complete all activities assigned. 2. Students will participate in discussion with other class members and/or teacher.	1. Students will complete all assignments and assessments with a minimum of 70% accuracy. 2. The supervising teacher will be satisfied with the quality of the student's work.

GRADE SIX MATHEMATICS A

Course Outline

I. Textbook Assignment Options:

A. *Grade Six Harcourt Math;* Chapters 1-15 **(1 Course)**

- Read and complete even-numbered problems in "Practice and Problem Solving" and "Review/Test" sections.
- Complete One Extension Activity.

C. *Working With Numbers, Level F* **(1 Course)**

- Complete all problems and activities in the textbook.
- Complete Extension Activity C

D. *Strength in Numbers, Algebra Level 6* **(1 Course)**

- Complete all problems and activities in the textbook.
- Complete One Extension Activity

E. *AGS Basic Math Skills*, Chapters 1-7 **(1 Course)**

- Complete "Lesson Exercises" and "Chapter Reviews:" even problems only. (omit applications unless assigned as Extension Activities)
- Complete one Extension Activity listed below
- *Student Workbook* activities, as assigned by the teacher.

II. Extension Activity Options:

A. Look at the weather page in the Bakersfield Californian:

1. Write down the five-day forecast for high and low temperatures.
   a. Find the mode for the high and low temperature.
   b. Find the mean for the high and low temperature.
   c. Find the median for the high and low temperature.
2. Look at the statistics for the state rainfall.
   a. What is the mean rainfall for "season to date?"
   b. What is the mean rainfall for "to date last year?"
   c. What is the difference between the two state rainfalls?

B. AGS Basic Math:

1. Chapter 1 Application: "Good Gas Mileage=Savings."
2. Chapter 4 Application: "Find the Best Buy."
3. Chapter 6 Application: "Some Tips on Tipping."

C. Harcourt Math (select 1)

1. Complete one of the California Connection activities from the textbook.
2. Complete one of the Challenge activities.
3. Complete one of the Math Detective activities.

D. Teacher generated activity, approved by administrator.

III. Evaluation

- Unit and/or final test.
- All textbook work must meet the 70% accuracy level for a "C" grade.