

<p align="center"><b>Course Title: GRADE FOUR MATHEMATICS-B</b></p>	<p align="center"><b>Course Description</b></p>
<p><b>Course No.</b> N/A <span style="float: right;"><b>Grade level:</b> 4</span></p> <p><b>Text and Resources:</b> A. <i>Grade Four Harcourt Math</i>; Harcourt Brace</p>	<p><b>Course Duration:</b> *One Semester</p> <p><b>Credit Value:</b> One Course</p>
<p align="center"><b>Course Content: Key Content Standards and Course Objectives</b></p>	
<p>The following standards are the Grade Four Mathematics Content Standards:</p> <ol style="list-style-type: none"> <li>1. <b>Number Sense:</b> Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers.</li> <li>2. <b>Number Sense:</b> Students extend their use and understanding of whole numbers to the addition and subtraction of simple decimals.</li> <li>3. <b>Number Sense:</b> Students solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationships among the operations.</li> <li>4. <b>Number Sense:</b> Students know how to factor small whole numbers.</li> <li>5. <b>Algebra and Functions:</b> Students use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences.</li> <li>6. <b>Algebra and Functions:</b> Students know how to manipulate equations.</li> <li>7. <b>Measurement and Geometry:</b> Students understand perimeter and area.</li> <li>8. <b>Measurement and Geometry:</b> Students use two-dimensional coordinate grids to represent points and graph lines and simple figures.</li> <li>9. <b>Measurement and Geometry:</b> Students demonstrate an understanding of plane and solid geometric objects and use this knowledge to show relationships and solve problems.</li> <li>10. <b>Statistics, Data Analysis, and Probability:</b> Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings.</li> <li>11. <b>Statistics, Data Analysis and, Probability:</b> Students make predictions for simple probability situations.</li> <li>12. <b>Mathematical Reasoning:</b> Students make decisions about how to approach problems.</li> <li>13. <b>Mathematical Reasoning:</b> Students use strategies, skills, and concepts in finding solutions.</li> <li>14. <b>Mathematical Reasoning:</b> Students move beyond a particular problem by generalizing and applying it to other situations.</li> </ol>	<p>This course will prepare students to meet the Grade Four Mathematical Standards. Upon successful completion, students will have made substantial progress toward proficiency with large whole numbers and the ability to describe and compare simple fractions and decimals. They will also understand the properties of, and the relationships between, plane geometric figures</p> <p align="right">*Open entry/open exit</p>
<p align="center"><b>Methods of Study</b></p>	<p align="center"><b>Evaluation of Performance Standards</b></p>
<ol style="list-style-type: none"> <li>1. Students will complete all activities assigned.</li> <li>2. Students will participate in discussion with other class members and/or teacher.</li> </ol>	<ol style="list-style-type: none"> <li>1. Students will complete all assignments and assessments with a minimum of 70% accuracy.</li> <li>2. The supervising teacher will be satisfied with the quality of the student's work.</li> </ol>

## GRADE FOUR MATHEMATICS B

### Course Outline

#### I. Textbook Assignment Options:

*Grade Four Harcourt Math*; Chapters 16-30 (1 Course)

- Read and complete: even-numbered problems in “Practice and Problem Solving” and “Review/Test” sections and even-numbered problems in the *Practice workbook*.
- Complete One Extension Activity.

#### II. Extension Activity Options

- A. Identify which letters in the alphabet are used most and least:
  1. Write the letters of the alphabet vertically on a piece of paper.
    - a. Which letter do you think is used most?
    - b. Which letter do you think is used the least?
  2. Open to any page of a library book and count the first fifty words.
    - a. Tally the number of times each letter is used in the words.
    - b. Repeat this procedure using 50 words from a different page.
    - c. Identify the letters used most often.
  3. Write a short paragraph about something you like to do and why you like it. Your paragraph can be about a sport, hobby, or a favorite activity.
    - a. Identify the letter you used the most in your paragraph.
    - b. Identify the letter you used the least.
    - c. List any letters you didn't use at all.
- B. Using graph paper, create 2 rectangles that have the same area but different perimeters. Create 2 rectangles that have the same perimeter but different area. Use the area and perimeter formulas to find your answers. Answers must be given in appropriate units.
- 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.