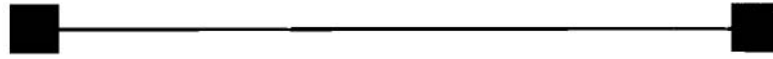


# MATHEMATICS

## Curriculum Overview Grades K-12



### Kindergarten

#### Lessons

1-40	41-80	81-120	121-160
Directions-right, left, high,low,etc. Comparisons-big, little,alike,different Matching Cardinal Numbers-to 9 <b>Colors</b> -red,blue,green, yellow, brown,purple <b>Shapes</b> -circle,square, rectangle,triangle Number Order Before and After Ordinal Numbers-to 9th Problem Solving	Directions-rightdeft, high,low,etc. Comparisons-big, little,alike,different Matching Cardinal Numbers-to 12 Colors-orange  <b>Shapes</b> -circle,square, rectangle,triangle Number Order Before and After Ordinal Numbers-to 9th Problem Solving Number Words-to nine Addition-to 9	<b>Directions</b> -right,left, high,low,etc. Comparisons-big, little,alike,different Matching Cardinal Numbers-to 19 <b>Colors</b> -black,white  Shapes-circle square, rectangle,triangle Number Order Before and After Ordinal Numbers-to 9th Problem Solving Number Words-to nine Addition-to 10 and multiples of 10 Subtraction-to 9 Place Value <b>Time/Calendar</b>	<b>Directions</b> -right,left, high,low,etc. Comparisons-big, little,alike,different Matching Cardinal Numbers-to 100 Colors-pink  <b>Shapes</b> -circle,square, rectangle,triangle Number Order Before and After Ordinal Numbers-to 9th Problem Solving Number Words-to nine Addition-to 10 and multiples of 10 Subtraction-to 10 Place Value <b>Time/Calendar</b> Money <b>Skip Counting</b> -2's, 5's, 10's Greater1 Less than

## INSTRUCTIONS FOR THIRD GRADE MATHEMATICS

The LIFEPAC curriculum for grades two through twelve is structured so that the daily instructional material is written directly into the LIFEPACs. However, because of the variety of reading abilities at this grade level, the third grade mathematics Teacher's Guide contains additional instructional material to help the teacher prepare and present each lesson effectively. As the year progresses, students should be encouraged to read and follow the instructional material as presented in the LIFEPACs to develop independent study habits. The teacher should introduce the LIFEPAC to the student, set a required completion schedule, complete teacher checks, be available for questions regarding both content and procedures, administer and grade tests, and develop additional learning activities as desired. Teachers working with several students may schedule their time so that students are assigned to a quiet work activity when it is necessary to spend instructional time with one particular student.

This section of the Teacher's Guide includes the following teacher aids: 1) Introduction of Skills 2) Mathematics Terms 3) Teacher Instruction Pages 4) Additional Activities.

The Introduction of Skills is a more detailed overview of skills than that presented in the *Scope and Sequence*. The Mathematics Terms includes a glossary of mathematics terms and a table of measurements. The Teacher Instruction Pages contain guidelines for teaching each lesson. Additional learning activities provide opportunities for problem solving, encourage the student's interest in learning, and may be used as a reward for good study habits.

Mathematics is a subject that requires skill mastery. But skill mastery needs to be applied toward active student involvement. The Teacher Instruction Pages list the required or suggested materials used in the LIFEPAC lessons. These materials include items generally available in the school or home. Pencils, paper, crayons, scissors, paste and/or glue stick are materials used on a regular basis. Construction paper, beads, buttons, and beans can be used for counting, sets, grouping, fractions, and patterning. Measurements require measuring cups, rulers, and empty containers. Boxes and similar items help in the study of solid shapes.

Any workbook assignment that can be supported by a real world experience will enhance the student's ability for problem solving. There is an infinite challenge for the teacher to provide a meaningful environment for the study of mathematics. It is a subject that requires constant assessment of student progress. Do not leave the study of mathematics in the classroom.

**Materials/ Manipulatives Needed for LIFEPAK**

- Chart of numbers showing numbers from 0 to 100 for number order exercises
- Fact cards for addition and subtraction through 18
- Fact cards for multiplication for 2's, 3's, 4's, 5's, 10's
- Counters for ones, tens, hundreds, and thousands
- Objects for counting
- Thermometer showing Fahrenheit and Celsius degrees - page 10
- Grocery store items that show liters or grams - page 25
- Crayons - page 33

**Objectives**

1. I can add and subtract whole numbers to thousands.
2. I can add and subtract fractions and whole numbers.
3. I know standard measurements for time, length, weight, volume, directions, and temperature.
4. I can learn metric units for temperature, weight, and volume.
5. I can read bar, line, picture, and circle graphs.
6. I know multiplication facts for 2, 3, 4, 5, and 10.
7. I know place value to thousands.
8. I know operation symbols for +, -, =, ≠, >, <, x.

**Teacher Notes**

**Part I: Add and Subtract Whole Numbers, Read Fractions and Mixed Numbers**

1. Page 1 - Have the students write their names. Discuss Memory Verse and Objectives.
2. Pages 2 and 3 - Review addition and subtraction facts, lines of symmetry, terms used with sizes and shapes.
3. Pages 4 and 5 - Review number words for fractions and mixed numbers, standard measurements for time, fact families, and digits.
4. Page 6 - Students should understand that a fraction represents a relationship between two numbers. Three parts of a set of three (3/3), four parts of a set of four (4/4) are both equal to one whole. Use objects for counting or other manipulatives to help the students in understanding this concept.
5. Complete page 7.

**Part II: Measurements, Operation Signs, Add Fractions and Mixed Numbers.**

1. Pages 8 and 9 - Review checking addition and subtraction problems. Review even and odd, operation symbols >, <, and time to the minute.
2. Pages 10 and 11 - Students will need to have an understanding of the metric system. It is appearing more frequently in the United States and is widely used in foreign countries. Have the students become familiar with the term Celsius but do not expect them to learn the standard measurements. At this point, the students will simply confuse them with the other standard measurements they are expected to know. Continue review of operation symbols =, ≠, +, -, x, directions, and plane shapes.
3. Page 12 - Students should now have a good grasp of fractions that are equal to one whole. When they add fractions, they should learn to convert these fractions to one (4/4 = 1) as part of their answer. For students having difficulty, cut out 8 circles