

ARITHMETIC

COURSE DESCRIPTION: In K5, children learn to count and recognize numbers 1-100. They also learn to work with the following number concepts: number families; before, after, and between numbers; smallest to largest numbers; number words (one-ten); counting to 100 by 1s, 2s, 5s, and 10s; and combinations for the One-Ten Addition Families. In addition, they work with telling time and money, and are exposed to the concepts of subtraction and measurement.

TEXTBOOKS:

A Beka Numbers

GOALS AND OBJECTIVES:

Goal 1: To become proficient in number sense and numeration

- 1.1 The student will count to 100 by 1's.
- 1.2 The student will count to 100 by 5's.
- 1.3 The student will count to 100 by 10's.
- 1.4 The student will match sets and numbers.
- 1.5 The student will write numerals 0-9.
- 1.6 The student will read and write numbers 1-100.
- 1.7 The student will order 1- and 2-digit numbers.
- 1.8 The student will identify most, fewest, more, and less of groups of numbers.
- 1.9 The student will identify doubles.
- 1.10 The student will estimate and count collections.
- 1.11 The student will identify ordinal positions to sixth place.

Goal 2: To understand concepts of whole number operations

- 2.1 The student will use concrete and pictorial models to show addition.
- 2.2 The student will use concrete and pictorial models to show subtraction.
- 2.3 The student will act out story problems.
- 2.4 The student will divide a set of objects into equal groups.

Goal 3: To understand the concept of fractions

- 3.1 The student will identify half of a whole.
- 3.2 The student will divide a shape in half.
- 3.3 The student will divide various manipulatives in half.

Goal 4: To understand money and its value

- 4.1 The student will identify and count pennies.

- 4.2 The student will identify and count dimes.
- 4.3 The student will identify and count nickels.
- 4.4 The student will count mixed coins.
- 4.5 The student will write money amounts using a cent symbol.
- 4.6 The student will pay for an item using pennies, nickels, or dimes.

Goal 5: To introduce geometry and spatial relationships

- 5.1 The student will identify common geometric shapes.
- 5.2 The student will solve spatial problems.
- 5.3 The student will sort common geometric shapes by attribute.
- 5.4 The student will make and cover designs using pattern blocks.
- 5.5 The student will identify similar shapes.

Goal 6: To understand the concept of measurement

- 6.1 The student will compare objects by length.
- 6.2 The student will order objects by length.
- 6.3 The student will compare objects by weight.
- 6.4 The student will compare the sizes of shapes.
- 6.5 The student will order objects by size.

Goal 7: To introduce data analysis and statistics

- 7.1 The student will graph a picture on a pictograph.
- 7.2 The student will identify most and fewest on a graph.
- 7.3 The student will sort and make a real graph.
- 7.4 The student will sort objects and identify a sorting rule.

Goal 8: To introduce algebra and functions

- 8.1 The student will identify, read, and extend repeating and continuing color patterns.
- 8.2 The student will read and extend a shape pattern.
- 8.3 The student will identify the missing shape in a matrix.

Goal 9: To understand the concept of time

- 9.1 The student will identify today's date.
- 9.2 The student will identify the days of the week.
- 9.3 The student will identify months of the year.
- 9.4 The student will identify seasons.
- 9.5 The student will tell and show time to the hour
- 9.6 The student will tell and show time to the half hour.
- 9.7 The student will tell and show time to the quarter past and quarter till the hour.

TEACHING METHODS: Traditional explanation, demonstration, recitation, and drill methods are used. Practice games are also utilized. A heavy emphasis is placed on visual examples and oral response. Manipulatives are used frequently. Centers, partners, and small groups are used for reinforcement.