

ARITHMETIC

COURSE DESCRIPTION: This course is designed as a "hands-on" success-oriented program that emphasizes manipulatives and mental math. A solid foundation in the language and basic concepts of math are also developed.

TEXTBOOKS:

Saxon Math 1, Second Edition

GOALS & OBJECTIVES:

Goal 1: To master basic skills of number sense and numeration

- 1.1 The student will count by 1's.
- 1.2 The student will count by 2's.
- 1.3 The student will count by 5's.
- 1.4 The student will count by 10's.
- 1.5 The student will count by 100's.
- 1.6 The student will match sets and numbers.
- 1.7 The student will write numerals 0 - 9.
- 1.8 The student will read and write numbers to 122.
- 1.9 The student will compare 1- and 2-digit numbers.
- 1.10 The student will order 1- and 2-digit numbers.
- 1.11 The student will identify place value in numbers to 1,000.
- 1.12 The student will represent 2- and 3- digit numbers using concrete materials and pictures.
- 1.13 The student will represent equivalent forms of the same number.
- 1.14 The student will estimate and count collections.
- 1.15 The student will rename numbers using regrouping.
- 1.16 The student will write numbers using words.
- 1.17 The student will identify ordinal position.
- 1.18 The student will identify even and odd numbers.
- 1.19 The student will identify dozen and half dozen.
- 1.20 The student will identify pairs.

Goal 2: To apply the concepts of whole number operations

- 2.1 The student will show the meaning of addition and subtraction.
- 2.2 The student will act out, draw pictures of and write number sentences to show addition and subtraction.
- 2.3 The student will identify addends and sums.
- 2.4 The student will identify and use the commutative and associative properties.
- 2.5 The student will divide a set of objects into equal parts.

Goal 3: To demonstrate whole number computation

- 3.1 The student will master addition facts to 18.
- 3.2 The student will master subtraction facts to 18.
- 3.3 The student will identify missing addends.
- 3.4 The student will identify one more and one less than a number.
- 3.5 The student will identify ten more and ten less than a number.
- 3.6 The student will estimate a sum.
- 3.7 The student will add three single-digit numbers.
- 3.8 The student will add 2-digit numbers without regrouping.
- 3.9 The student will subtract 2-digit numbers without regrouping.
- 3.10 The student will add 2-digit numbers with regrouping.
- 3.11 The student will solve problems involving addition.
- 3.12 The student will check subtraction answers with addition.

Goal 4: To demonstrate understanding of basic fractions and decimals

- 4.1 The student will identify fractional parts of a whole.
- 4.2 The student will identify a fractional part of a set.
- 4.3 The student will find half of a set of objects.

Goal 5: To distinguish between different coins and their values

- 5.1 The student will identify and know the value of a penny.
- 5.2 The student will identify and know the value of a dime.
- 5.3 The student will identify and know the value of a nickel.
- 5.4 The student will identify and know the value of a quarter.
- 5.5 The student will write money amounts using ¢ and \$.
- 5.6 The student will select coins for a given amount.

Goal 6: To discriminate between geometric and spatial relationships

- 6.1 The student will identify and describe geometric figures.
- 6.2 The student will identify and create congruent shapes and designs.
- 6.3 The student will solve spatial problems.
- 6.4 The student will identify and sort common geometric figures by attribute.
- 6.5 The student will identify angles and sides of a polygon.
- 6.6 The student will identify and describe 3-dimensional geometric objects.
- 6.7 The student will identify right and left.
- 6.8 The student will give and follow directions about location.
- 6.9 The student will arrange and describe objects in space.
- 6.10 The student will identify first, last, between and middle positions.

Goal 7: To become proficient in various forms of measurement

- 7.1 The student will identify today's date.

- 7.2 The student will identify morning, afternoon, evening and night.
- 7.3 The student will identify days of the week and month of the year.
- 7.4 The student will identify seasons.
- 7.5 The student will tell and show time to the hour.
- 7.6 The student will tell and show time to the half hour.
- 7.7 The student will order events by time.
- 7.8 The student will solve problems using a calendar.
- 7.9 The student will read a Fahrenheit thermometer to the nearest 10°.
- 7.10 The student will identify cold, cool, warm and hot temperatures.
- 7.11 The student will estimate length.
- 7.12 The student will measure length using nonstandard units.
- 7.13 The student will compare and order objects by length.
- 7.14 The student will measure length using customary units (nearest inch and foot).
- 7.15 The student will draw line segments using customary units (nearest inch).
- 7.16 The student will measure length using metric units (nearest centimeter).
- 7.17 The student will draw line segments using metric units (nearest centimeter).
- 7.18 The student will compare objects by weight (mass).
- 7.19 The student will weigh objects using nonstandard units.
- 7.20 The student will estimate capacity.
- 7.21 The student will compare and order containers by capacity.
- 7.22 The student will measure capacity using standard units.
- 7.23 The student will follow a recipe and measure.

Goal 8: To gain understanding of data analysis, statistics and probability

- 8.1 The student will graph a picture on a pictograph.
- 8.2 The student will identify most and fewest on a graph.
- 8.3 The student will graph data on a bar graph.
- 8.4 The student will sort and make a real graph.
- 8.5 The student will draw and read a bar graph.
- 8.6 The student will use tally marks.
- 8.7 The student will sort and classify objects.
- 8.8 The student will write observations about a graph.

Goal 9: To demonstrate simple algebraic functions

- 9.1 The student will use symbols (<, >, and =).
- 9.2 The student will identify the missing number in a sequence.
- 9.3 The student will identify the missing shape or design in a repeating pattern.

TEACHING METHODS: Traditional approaches such as explanation, demonstration, recitation, practice, and drill are utilized. A variety of visuals and flashcards invite student participation. Rote recall is also emphasized.

