

# ACADEMIC SKILLS

## LOWER ELEMENTARY

### MATH

#### INTRODUCTION

- The History of Numbers

#### WHOLE NUMBERS AND NUMERATION

##### Numeration

- Read and write whole numbers up to one million
- [Round to the nearest 10 and 100](#)
- Exposure to expanded notation
- Compare two three-digit numbers using  $>$ ,  $=$ , and  $<$
- Read, write, and convert Roman numerals up to 30

##### Operations

- Complete [two-step](#) story problems with four operations
- Memorization of math facts addition and subtraction through 20
- Abstractly complete static and dynamic addition with 4-digits abstractly
- Completes static and dynamic subtraction with 4-digits abstractly
- Understand the relationship between multiplication and division
- [Identify and apply properties of multiplication \(commutative, associative, and distributive\)](#)
- Memorization of math facts multiplication through 12
- Abstractly multiply with a 1-digit multiplier
- [Abstractly multiply 1-digit whole numbers by multiples of ten](#)
- Memorization of division facts through 9
- Abstractly complete division with a 1-digit divisor with [and without](#) a remainder

#### MULTIPLES

- Identify multiples using bead chains 2-10
- Identify lowest common multiple
- [Identify factors of numbers from 1 to 50](#)
- [Identify prime numbers](#)

#### FRACTIONS

- Reduce to lowest terms
- Add and subtract fractions with common denominators
- Add and subtract mixed numbers with common denominators
- Compare fractions
- Identify fractions on number line
- Identify and create equivalent fractions without materials

#### MEASUREMENT AND DATA

- Telling time on analogue and digital clocks
- [Solve word problems involving addition and subtraction of time intervals in minutes](#)

##### Measurement

- Identify and convert English measurement
- Identify and convert Metric measurement
- Measure objects to the nearest  $\frac{1}{4}$  inch
- Measure objects to the nearest centimeter
- Measure temperature, volume, and weight
- Solve word problems involving measurement [using the four operations](#)

##### Data

- Draw and analyze a bar graph and line graph
- Solve one and two-step problems using information from a bar graph

## DECIMALS

- Count and write money amounts
- Add and subtract dollars and cents
- Solve story problems with money

## GEOMETRY

- Identify and define geometric shapes including triangles, polygons, and quadrilaterals
- Compare attributes of shapes to explain relationships between shapes
- Identify geometric solids
- Identify, define, and create points, lines, segments, curved line, intersecting lines and position of a straight line
- Identify and create right, acute, obtuse, and straight angles
- Create and name angles with letters
- Construct angles with a protractor
- Find the perimeter of a square, rectangle, and polygon
- Find the area of a square, rectangle and polygon
- Identify line of symmetry
- Identify types of triangles by their sides: equilateral, scalene, isosceles
- Identify types of triangles by their angles: right, obtuse, acute, equilateral

## ALGEBRAIC IDEAS

- Determine the unknown whole number in a multiplication or division equation