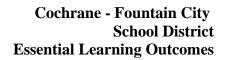# ESSENTIAL LEARNING OUTCOMES (ELOs)

ELOs stand for Essential Learning Objectives. Essential Learning Objectives (ELOs) are statements for each grade level and content that represent what we feel students at Cochrane-Fountain City should know and be able to do upon completion of that school year. Teachers and students work on the ELOs throughout the school year and assess and monitor students' progress continually.

ESSENTIAL LEARNING OUTCOMES ARE:

- Essential outcomes represent the essential understandings that a student must learn to reach high levels of learning.
- Essential outcomes identify non-negotiable learning which informs planning and instruction.
- Essential outcomes help identify which students did not master specific essential outcomes and need additional support.
- Essential outcomes support common assessment development.

ESSENTIAL LEARNING OUTCOMES ARE NOT:

- Essential outcomes do not represent all that is being taught.
- Essential outcomes do not omit parts of the curriculum.
- Essential outcomes are not for reporting purposes only.

Grade: 4K	Course: Math

Students will:
- Recognize some numerals and associate number concepts with print.
- Name and write some numerals.
- Verbally count with 1 to 1 correspondence up to 10 and beyond.
- Identify "1 more" or "1 less".
- Identify and recognize basic shapes.
- Identify and recognize and extend simple patterns.
- Compare and order by size.
- Describe information through drawings.

Grade: 5K	Course: Math

Students will:
- Identify numbers 0-20.
- Know the count sequence from 1 to 100 by 1's.
- Know the count sequence from 1 to 100 by 10's.
- Write numbers from 0-20.
- Count to tell the number of objects.
- Compare quantities and numbers using greater than, less than, and equal to 10.
- Represent addition as "putting together" and "adding to" using one or more strategies.
- Represent subtraction as "taking apart" and "taking from" using one or more strategies.
- Fluently add within 5 (may use strategies for support).
- Fluently subtract within 5 (may use strategies for support).
- Show understanding of place value for numbers 11-19 using objects, drawings, and equations.

Grade: 1st	Course: Math

Students will:
- Distinguish between defining attributes, build and draw shapes to possess defining attributes and show how to represent quarters and halves of rectangles and circles.
- Measure and order 3 objects by using a whole number representing objects of shorter length laid end to end, with no gaps or overlaps.
- Tell and write time in hours and half hours using analog and digital clocks.
- Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, using comparison words: more/less.
- Count to 120, starting at any number less than 120. In this range, read and write numerals and represent several objects with a written numeral.
- Understand that the two digits of a two-digit number represent amounts of tens and ones.
- Add within 100 using one-digit, two-digit, and multiples of 10 with strategies relating to place value, models or drawings, and fact family relationships.
- Use addition and subtraction within 20 to solve word problems using multiple strategies.
- Compare numbers using <, >, =.

Grade: 2nd	Course: Math

Students will:
- Fluently add within 20 using mental strategies.
- Fluently subtract within 20 using mental strategies.
- Skip-count by 5s, 10s, and 100s to 1000.
- Use addition to find the total number of objects in an array and write an equation to express it.
- Understand that a 3-digit number represents amounts of hundreds, tens, and ones.
- Add 2-digit numbers accurately and efficiently and explain their strategies.
- Subtract 2-digit numbers accurately and efficiently and explain their strategies.
- Measure and estimate lengths in standard units.
- Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM.
- Solve word problems involving dollars, quarters, dimes, nickels, and pennies using the $ and cents.
- Recognize and draw shapes having specified attributes and identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
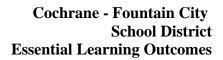
Grade: 3rd	Course: Math

Students will:
- Round numbers to the nearest 10 or 100.
- Represent and solve word problems involving multiplication and division.
- Use strategies (arrays and equal groups) to multiply and divide.
- Solve problems involving the three-digit operations.
- Use place value to perform multi-digit math (addition and subtraction).
- Develop an understanding of fractions.
- Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
- Represent and interpret data. Solve problems and make statements about differences in data, using information from a pictograph or bar graph.
- Understand concepts of area and perimeter in geometric measurements.
- Identify shapes using their attributes.
- Add and subtract within 1,000 with or without regrouping.

Grade: 4th	Course: Math

Students will:
- Add and subtract problems with and without regrouping (greater than 3 digits).
- Know place values through the millions (standard, expanded, word form).
- Demonstrate rounding through the millions.
- Demonstrate estimation/estimates (understanding words such as "about how many")
- Create equations to solve word problems (add, subtract, multiply, divide)
- Divide up to three-digit numbers (1-digit divisor)
- Add and subtract fractions with common denominators.
- Multiply up to two-digit numbers.
- Reduce fractions into simplest form.
- Master angles and two-dimensional shapes (Geometry).
- Master area and perimeter (Measurement).
- Master basic multiplication and division facts.

Grade: 5th	Course: Math

Students will:
- Multiply whole numbers (3-digit x 3-digit).
- Solve division problems with multi-digit dividends and 2-digit divisors.
- Identify the greatest common factor and least common multiple.
- Compare fractions.
- Add and subtract decimals.
- Write fractions as decimals.
- Add and subtract fractions with unlike denominators.
- Measure objects (length, weight, metric mass, convert units).
- Identify polygons.
- Classify quadrilaterals and Triangles.
- Understand decimal place value to the thousandths.

Grade: 6th	Course: Math

Students will:
- Identify and understand the ratio, rate, and unit rate and use these concepts in real-world application problems.
- Use ratio concepts to make equivalent fractions and fractions as percents.
- Understand and apply knowledge of rational numbers by converting from fractions, decimals, and percents.
- Fluently add, subtract, multiply, and divide multi-digit decimals.
- Interpret, create, and compute to multiply and divide fractions.
- Identify, order, compare, and graph integers on number lines while applying them in real-world contexts.
- Graph integers in the coordinate plane and identify and understand the absolute value of the integers.
- Write, read, and evaluate numerical expressions and expressions in which letters stand for numbers.
- Write, solve, and understand math equations and inequalities.
- Identify, write, and apply functions & inequalities in tables and graphs.
- Find the area of polygons.
- Find the volume and surface area of prisms and pyramids.
- Recognize and understand a statistical question and recognize that the data from these questions can be summarized by measures of center and measures of variability.
- Display and interpret numerical data on number lines, dot plots, histograms, and box plots.