

## 3-5 Math

### Adding and Subtracting Decimals

**Lesson Objective:** The student will add and subtract decimals.

**Subobjective 1:** The student will add and subtract decimals using the decimal alignment method.

### Adding Fractions

**Lesson Objective:** The student will add fractions together to find a sum.

**Subobjective 1:** The student will solve adding fractions problems with like denominators using pictures.

**Subobjective 2:** The student will add fractions with like denominators.

**Subobjective 3:** The student will add fractions with like denominators to create one whole or more.

**Subobjective 4:** The student will add fractions with like denominators then reduce his/her answer to the simplest form.

### Addition and Subtraction of Whole Numbers and Decimals

**Lesson Objective:** The student will correctly add and subtract whole numbers and decimals.

**Subobjective 1:** The student will compare and order whole numbers and decimals through the thousandths.

**Subobjective 2:** The student will round whole numbers and decimals.

**Subobjective 3:** The student will write equations to solve problems involving whole numbers and decimals.

### Area

**Lesson Objective:** The student will calculate the surface area of rectangles.

**Subobjective 1:** The student will compare the area of two similar objects.

**Subobjective 2:** The student will determine the area of a rectangular figure by counting square units.

**Subobjective 3:** The student will determine the area of rectangular figures using the formula  $\text{Area} = \text{Length} \times \text{Width}$ .

**Subobjective 4:** The student will determine the area of an irregular object given its length and width.

### Area and Perimeter of Irregular Shapes

**Lesson Objective:** The student will use models to find the perimeter and area of irregular polygons and shapes.

**Subobjective 1:** The student will measure the perimeter of irregular polygons.

**Subobjective 2:** The student will measure the area of irregular polygons.

**Subobjective 3:** The student will create his/her own irregular polygons to determine perimeter and area.

**Subobjective 4:** The student will estimate the area of non-polygon, irregular shapes.

## Area of Rectangles and Comparing Differences

**Lesson Objective:** The student will determine the area of a rectangle and compare differences.

**Subobjective 1:** The student will determine the perimeter of a rectangle.

**Subobjective 2:** The student will determine the area of a rectangle.

**Subobjective 3:** The student will compare differences.

## Calculating Perimeter

**Lesson Objective:** The student will determine the perimeter of a shape.

**Subobjective 1:** The student will define perimeter.

## Customary and Metric Measurement

**Lesson Objective:** The student will recognize and use standard units of metric and customary measurement.

**Subobjective 1:** The student will solve problems using equivalent measures within the same measurement system.

**Subobjective 2:** The student will estimate and measure using appropriate units.

## Equivalent Fractions

**Lesson Objective:** The student will utilize models to recognize that the size of the whole determines the size of the fraction depending on the original quantity.

**Subobjective 1:** The student will recognize halves, thirds, fourths, sixths, eighths, and wholes.

**Subobjective 2:** The student will write a fraction that is equivalent to a given fraction with the use of models (for example:  $1/2 = 4/8 = 8/16$ ).

**Subobjective 3:** The student will recognize that a fractional part of a rectangle does not have to be shaded with contiguous parts.

## Fractions and Mixed Numbers on a Number Line

**Lesson Objective:** The student will determine which fraction or mixed number is represented by a point on the number line.

**Subobjective 1:** The student will identify what a tick mark and an integer are.

**Subobjective 2:** The student will equally divide the distance between two consecutive integers on a number line.

**Subobjective 3:** The student will determine which fraction or mixed number is represented by a positive point on the number line.

**Subobjective 4:** The student will determine which fraction or mixed number is represented by a negative point on the number line.

## Missing Numbers in Addition and Subtraction

**Lesson Objective:** The student will find the missing number in an addition or subtraction problem.

**Subobjective 1:** The student will find the missing addend in an addition problem.

**Subobjective 2:** The student will find the first number of a subtraction problem.

**Subobjective 3:** The student will find the second number of a subtraction problem.

## Missing Numbers in Multiplication and Division

**Lesson Objective:** The student will find the missing numbers in multiplication and division problems.

**Subobjective 1:** The student will use the other factor and the product to determine the missing factor in a multiplication problem.

**Subobjective 2:** The student will find the missing dividend in a division problem by multiplying the other two numbers.

**Subobjective 3:** The student will find the missing quotient or divisor in a division problem by dividing.

## Multi-Digit and Multi-Step Addition and Subtraction

**Lesson Objective:** The student will solve contextual problems involving addition and subtraction.

**Subobjective 1:** The student will solve a contextual problem involving multi-digit subtraction.

**Subobjective 2:** The student will solve a contextual problem involving multi-digit addition.

**Subobjective 3:** The student will solve a simple, multi-step subtraction problem using objects, mental computation, a calculator, and a pencil.

**Subobjective 4:** The student will solve a simple, multi-step addition problem using objects, mental computation, a calculator, and a pencil.

## Multiplication Properties

**Lesson Objective:** The student will define the terms, “product,” “factor,” and “multiple.”

**Subobjective 1:** The student will use the commutative and identity properties of multiplication correctly.

**Subobjective 2:** The student will define the identity property of multiplication.

## Multiplication Sentences

**Lesson Objective:** The student will write multiplication sentences that are based on models and images.

**Subobjective 1:** The student will describe a multiplication sentence as a symbolic representation of a picture problem.

**Subobjective 2:** The student will use pictures and models to build multiplication sentences.

**Subobjective 3:** The student will work problems in reverse to determine the numbers in a multiplication sentence.

## Multiplication Word Problems

**Lesson Objective:** The student will solve two-digit by one-digit multiplication in contextual word problems.

**Subobjective 1:** The student will solve word problems using the array method.

**Subobjective 2:** The student will solve word problems using lattice multiplication.

**Subobjective 3:** The student will solve word problems using the partial products method.

## Nets

**Lesson Objective:** The student will identify and manipulate nets in relation to their 3-D shape.

**Subobjective 1:** The student will identify 3-D shapes.

**Subobjective 2:** The student will identify the nets that correspond with its 3-D shape.

## Number Operations

**Lesson Objective:** The student will correctly add and subtract decimals, multiply whole numbers, and divide by one- and two-digit divisors.

**Subobjective 1:** The student will correctly answer addition and subtraction problems that include whole numbers and decimals.

**Subobjective 2:** The student will multiply whole numbers.

**Subobjective 3:** The student will divide with a one-digit divisor.

**Subobjective 4:** The student will divide with a two-digit divisor.

## One-step Story Problems

**Lesson Objective:** The student will use addition, subtraction, multiplication, and division to solve one-step story problems.

**Subobjective 1:** The student will determine the correct operation needed to compute the answer in a one-step story problem.

## Ordering and Comparing Decimals

**Lesson Objective:** The student will compare and order decimals.

**Subobjective 1:** The student will compare the values of decimals using a variety of representations (pictures, words, and numbers).

**Subobjective 2:** The student will order decimals in a variety of orders (greatest to least and least to greatest).

## Parts of a Whole

**Lesson Objective:** The student will identify and illustrate parts of a whole and recognize that a fractional part of a rectangle does not have to be shaded with contiguous parts.

**Subobjective 1:** The student will represent fractions in halves, thirds, fourths, sixths, and eighths using words, numerals, and physical models.

## Probability and Graphing

**Lesson Objective:** The student will determine basic probabilities using a spinner and a die.

**Subobjective 1:** The student will define the terms: most likely, least likely, equally likely, and uncertain.

**Subobjective 2:** The student will apply information to produce a bar graph of his/her results.

**Subobjective 3:** The student will analyze his/her results to learn how it relates to his/her knowledge of probability.

## Probability Vocabulary and Probability Tree

**Lesson Objective:** The student will determine the probability of a given situation and identify all possible outcomes.

**Subobjective 1:** The student will explain the probability of a situation or experiment.

**Subobjective 2:** The student will determine all possible outcomes for a given situation or experiment.

**Subobjective 3:** The student will demonstrate the probability of an event through charts, diagrams, and other visual representations.

## Probability, Mean, Median, and Mode

**Lesson Objective:** The student will understand basic principles of probabilities and apply that knowledge to a set of data.

**Subobjective 1:** The student will recall types of probable outcomes given an event using different manipulative items such as dice, a coin, or a spinner.

**Subobjective 2:** The student will recall vocabulary directly related to probability.

**Subobjective 3:** The student will collect data and apply it to create a graph.

**Subobjective 4:** The student will design experiments, collect data, and present their findings using a graph.

## Sequences and Scales

**Lesson Objective:** The student will sequence numbers in multiples, correctly read a thermometer, and identify items used to measure weight.

**Subobjective 1:** The student will identify the definitions of the following words: sequence, scale, even numbers, odd numbers, addition sequence, and multiplication sequence.

**Subobjective 2:** The student will sequence numbers by twos, fives, tens, twenties, twenty-fives, fifties, hundreds, and thousands.

**Subobjective 3:** The student will identify the definitions of the following words: graph, temperature, Celsius, Fahrenheit, measurement, pounds, and thermometer.

**Subobjective 4:** The student will correctly read a thermometer.

**Subobjective 5:** The student will identify the items that measure the weight of something.

## Slides, Flips, and Turns

**Lesson Objective:** The student will identify slides, flips, and turns using their common names and their mathematical terms.

**Subobjective 1:** The student will demonstrate how to create a slide/translation using grids and identify real life examples.

**Subobjective 2:** The student will demonstrate how to create a flip/reflection and identify real life examples.

**Subobjective 3:** The student will demonstrate how to create a turn/rotation and identify real life examples.

## Subdividing and Combining Figures

**Lesson Objective:** The student will create new figures by combining and subdividing models of existing figures.

**Subobjective 1:** The student will create new figures by combining and subdividing existing figures and will record the results in a table.

## Three- and Four-digit Subtraction

**Lesson Objective:** The student will use regrouping to subtract three- and four-digit numbers.

**Subobjective 1:** The student will identify the steps of subtraction.

**Subobjective 2:** The student will identify the steps of subtraction and apply regrouping when necessary.

## Understanding 3-D Shapes

**Lesson Objective:** The student will compare, contrast, and build three-dimensional (3-D) figures.

**Subobjective 1:** The student will identify 3-D figures.

**Subobjective 2:** The student will identify the numbers of faces, vertices, and edges of a 3-D figure.

**Subobjective 3:** The student will replicate 3-D cubes with a given model.

**Subobjective 4:** The student will identify what 3-D figure can be formed from other figures being combined or taken apart.

## Volume, Circles, and Triangles

**Lesson Objective:** The student will determine the volume of objects, identify and measure parts of a circle, and identify and correctly classify triangles.

**Subobjective 1:** The student will correctly classify a scalene, isosceles, obtuse, right, acute, and equilateral triangle.

**Subobjective 2:** The student will identify non-congruent, congruent, and similar triangles.

**Subobjective 3:** The student will determine the volume of a cube and a rectangular solid in metric units and customary units using a formula.

**Subobjective 4:** The student will identify and measure the radius, diameter, chord, and circumference of a circle.