

Public Schools of the Tarrytowns

Grade 6 Math Curriculum

Second Trimester

December

Geometry

Week 14, 3 Weeks

Essential Questions:

What is the relationship between the diameter and radius of a circle?
How do I find the area and circumference of a circle?
What is the difference between area and circumference of a circle?
What are the formulas for the area of triangles and quadrilaterals?
How can I measure an angle and find its complement and/or supplement?

Skills:

Use a protractor.

Classify and constructing angles.

Complementary and supplementary angles.

Classify polygons.

Determine the area of triangles and quadrilaterals (squares, rectangles, rhombi, and trapezoids) and develop formulas.

Use a variety of strategies to find the area of regular and irregular polygons.

Determine the volume of rectangular prisms, by counting cubes and develop the formula.

Determine the volume of cylinders.

Identify radius, diameter, chords and central angles of a circle.

Understand the relationship between the diameter and the radius of a circle.

Determine the area and circumference of a circle, using the appropriate formula.

Calculate the area of a sector of a circle, given the measure of the central angle and the radius of the circle.

Understand the relationship between circumference and diameter of a circle.

Calculate the area of basic polygons drawn on a coordinate plane (rectangles and shapes composed of rectangles having sides with integer lengths).

January

Ordering Integers

Week 17, 4 Weeks

Essential Questions:

What is the absolute value of a number?

Can I locate and order negative and positive rational numbers on a number line?

Skills:

Define absolute value and determine the absolute value of rational numbers (including positive and negative).

Locate rational numbers on a number line (including positive and negative).

Order rational numbers (including positive and negative).

Graphing

Essential Questions:

When is it appropriate to use a bar graph, circle graph, line graph, and stem-and-leaf plot, and what are the advantages and disadvantages of each?

How do I decide which type of graph is appropriate for a set of data, and what are its necessary components?

How do I interpret and make a conclusion based upon my completed graph?

Skills:

Read and interpret graphs.

Graph equations with one operation (+ or X).

Organize data into a table.

Develop the concept of sampling when collecting data from a population and decide the best method to collect data for a particular question.

Record data in a frequency table.

Construct Venn diagrams to sort data.
Determine and justify the most appropriate graph to display a given set of data (pictograph, bar graph, line graph, histogram, or circle graph).

One-Step Equations

Essential Questions:

How can I identify, model and solve 1-step linear equations?

Skills:

Solve equations using models.
Solve addition, subtraction, multiplication, and division equations.
Write one step algebraic expressions and equations.

February

Ratios and Proportions

Week 21, 4 Weeks

Essential Questions:

What strategies do I know for solving proportions?
How can we solve problems related to everyday living (shadows casted, scale drawings, etc.) using proportional thinking?
How are proportions used to determine the missing length of similar figures?

Skills:

Find unit rates and create ratios.
Solve proportions.
Recognize and solve for missing parts in similar polygons.
Read scale drawings.
Ratios and rates.
Proportions.
Similar polygons.
Scale drawings.

Probability 1

Essential Questions:

What is the probability of a simple event?

Skills:

Justify predictions made from data.