

Quarter 1 Seventh Grade Math Syllabus

Our goal for first quarter is the Illinois Standard Goal 6 – number sense.

Students will be learning the following math topics:

- Recognizing, translating between, and drawing one half, fifty percent, one and one half.
- Solving problems involving addition, subtraction, multiplication, and division using integers, fractions, decimals, and percents.
- Making estimates appropriate to a given situation.
- Using addition and multiplication properties.

Parents can do the following activities to improve the skills on the above topics:

- Ask your child to see their math binder, and take a look at what they are working on in class.
- Each day ask your child to explain the math concepts that they learned and give them practice problems.
- Review vocabulary and make flashcards for each term.
- Take only the numbers from a deck of cards. Shuffle the cards and split them in half. Then with your child, play Integer War. This is similar to the normal game of War, but in this case you can decide the operation (addition, subtraction, multiplication, and division) and solve. Red numbers indicate negative integers, and black numbers indicate positive integers.
- Take store ads and allow your child to select items and estimate the total amount needed to buy the items.
- When at a restaurant, have your child figure out the appropriate tip of the bill (For example, 20%).
- Have your child create a game similar to Memory using the properties of addition and multiplication.
- Here are a list of websites that we encourage you to visit with your child to help your child understand the number sense concepts:
 - <http://www.brainpop.com>
 - <http://www.nlvm.usu.edu>
 - <http://www.aaamath.com/>
 - <http://www.funbrain.com>

Quarter 2 Seventh Grade Math Syllabus

Our goal for second quarter is the Illinois Standard Goal 8 – Algebra.

Students will be learning the following math topics:

- Writing math sentences using variables to show unknown numbers.
- Representing **linear equations** on a **coordinate system**, and explain the meaning of specific parts of a graph.
- Identifying, graphing, and interpreting solutions of **inequalities** on a number line.
- Solving equations and inequalities with one variable using positive and negative numbers.
- Solving word problems involving unknown quantities.

Parents can do the following activities to improve the skills on the above topics:

- Ask your child to see their math binder, and take a look at what they are working on in class.
- Each day ask your child to explain the math concepts that they learned and give them practice problems.
- Review vocabulary and make flashcards for each term.
- The game Battleship is a great way to practice naming and locating ordered pairs on a coordinate plane.
- Here are a list of websites that we encourage you to visit with your child to help your child understand the algebra concepts:
 - <http://www.brainpop.com>
 - <http://www.nlvm.usu.edu>
 - <http://www.aaamath.com/>
 - <http://www.funbrain.com>

Quarter 3 Seventh Grade Math Syllabus

Our goal for third quarter is the Illinois Standards Goal 7 – Measurement and Goal 9 - Geometry.

Students will be learning the following math topics:

- Choosing the correct units of measurement and measuring tools (rulers, protractors, compasses, etc.)
- Sketching/drawing line segments, angles, triangles and quadrilaterals.
- Solving problems involving perimeter, circumferences, and area of polygons, circles and composite figures.
- Comparing and estimating length, perimeter, area, volume, circumference, angles, weight, and mass.
- Solving problems using properties of triangles and quadrilaterals.
- Graphing points and identifying coordinates of points in four quadrants of the coordinate plane.
- Identifying angle relationships using vertical, congruent, and adjacent angles.
- Identifying a 3-dimensional object from its **net**.
- Describing the difference between congruence and similarity of figures.

Parents can do the following activities to improve the skills on the above topics:

- Ask your child to see their math binder, and take a look at what they are working on in class.
- Each day ask your child to explain the math concepts that they learned and give them practice problems.
- Review vocabulary and make flashcards for each term.
- Ask your child to go around your home/neighborhood and look for various polygons. Or ask them to name a polygon that you point to.
- Have your child find an object around your home and measure all its sides. Ask them to use their measurements to find its area, perimeter, surface area, and volume. (See formula reference sheet provided.)
- Here are a list of websites that we encourage you to visit with your child to help your child understand the measurement and geometry concepts:
 - <http://www.brainpop.com>
 - <http://www.nlvm.usu.edu>
 - <http://www.aaamath.com/>
 - <http://www.funbrain.com>

Quarter 4 Seventh Grade Math Syllabus

Our goal for fourth quarter is the Illinois State Goal 10 – Statistics and Probability. Students will be learning the following math topics:

- Reading and interpreting graphs such as bar graphs, line graphs, scatterplots, histograms, charts and tables.
- Finding the mode, range, median, and mean to interpret a set of data.
- Representing all possible outcomes for simple events using tables, grids, and tree diagrams.

Parents can do the following activities to improve the skills on the above topics:

- Ask your child to see their math binder, and take a look at what they are working on in class.
- Each day ask your child to explain the math concepts that they learned and give them practice problems.
- Review vocabulary and make flashcards for each term.
- You and your child can find all the possible outcomes of simple events. (Example: Rolling a dice and flipping a coin). Also, you can have them calculate the probability (as a fraction, decimal, and percent) of various simple events. (Example: Rolling a dice and getting a 6).
- Have your child take their overall class percentages from Teacherease and find their mean (average), median (middle), mode (most occurring grade), and range (lowest and highest).
- Read through newspapers and magazines, looking for charts and graphs, (ex: weather forecasts and sports scores) and interpreting the information given.
- Here are a list of websites that we encourage you to visit with your child to help your child understand the statistics and probability concepts:
 - <http://www.brainpop.com>
 - <http://www.nlvm.usu.edu>
 - <http://www.aaamath.com/>
 - <http://www.funbrain.com>