GRADE 7 MATH PROGRAM 2011-2012

Resources:

- **Prentice Hall *Middle Grades Math-Tools for Success Course 3***
- **Class notes and handouts**

CALENDAR	MODULE/LESSONS	OBJECTIVES	PROJECTS/TESTS
September	**Statistical Data**	Students should be able to • identify and make bar graphs, stacked bar graphs and sliding bar graphs; • interpret and make a line graph and multiple line graph; • recognize misleading graphs; • select appropriate scale; • display frequency in a line plot and histogram; • find measures of central tendency; • make and use a stem and leaf plot; • identify range; • make and interpret scatter plots; • choose an appropriate graph; • conduct a survey.	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**
October-November	**Integers and Variable Expressions**	Students should be able to • graph and solve absolute value; • compare and order integers; • write variable expressions; • use the order of operations; add, subtract, multiply and divide integers; • evaluate numerical and variable expressions using exponents; • use exponents in multiplication and division; • use Scientific Notation.	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**
November - December	**Equations and Inequalities**	Students should be able to • simplify variable expressions combining like-terms and then simplifying; • solve equations by subtraction;	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**

		• solve equations by addition; • solve equations by multiplication and division; • solve two-step equations; • solve equations with variable on both sides; • write and graph inequalities; • solve inequalities by adding, subtracting, multiplying and dividing.	
January-March	**Graphing in the Coordinate Plane**	Students should be able to • identify key terms such as coordinates, coordinate plane, *x*-axis, *y*-axis, quadrants, origin, ordered pair, *x*- and *y*-coordinates; • find the solution to a linear equation; • find slope from a graph or a table • graph an equation in slope-intercept form; • write an equation for a line; • use Venn diagrams to solve problems; • use intercepts to graph an equation; • work with two equations; • use the coordinate plane for geometric translations, reflections and symmetry.	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**
March-April	**Rational and Irrational Numbers**	Students should be able to • identify prime and composite numbers, • find GCF; • write rational numbers in simplest form; • write fractions as decimals; • write repeating decimals as fractions; • find LCM; • compare and order rational numbers; • add, subtract, multiply and divide fractions and mixed numbers; • find square roots.	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**
May	**Applications of Proportions and Percents**	Students should be able to • explore ratios and find unit rates; • develop a sense of measurement; • solve proportions;	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**

		• write fractions and decimals as percents and vice-versa; • estimate using compatible numbers; • find parts of a whole.	
June	**Functions and Polynomials**	Students should be able to • represent functions using function notation; • write a rule from words and from table; • familiarize with polynomials, modelling them and simplifying them.	**PROGECT/ MID CHAPTER TEST/CHAPTER TEST**

QUIZZES: Depending on length of chapter and student responsiveness, quizzes may be done in the middle of a chapter to assess if students are assimilating concepts correctly.

STUDENT ASSESSMENT: Homework, class notebooks, tests/quizzes, activities, projects.

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