COURSE: **12-1-1 Math Year 1**
GRADE LEVEL: **9 – 10**

MAIN/GENERAL TOPIC:	SUB-TOPIC:	ESSENTIAL QUESTIONS:	WHAT THE STUDENTS WILL KNOW OR BE ABLE TO DO:	SKILLS:	WHEN STUDENT DOES IT:	ASSESSMENTS:
BASIC OPERATIONS	• Addition • Subtraction • Multiplication • Division • Fractions	• How is math relevant to me? • How do mathematical operations relate to each other?	• Identify the set of whole numbers • Add, subtract, multiply and divide whole numbers • Add, subtract, multiply and divide fractions	• Understand and apply regrouping • Understand lattice multiplication • Basic operations with fractions • Use calculator	September	• Teacher generated tests and worksheets
COUNTING CALORIES	• Adding calories • Subtracting calories • Estimating calories used • A healthy plan	• What is the benefit of charts, tables, and graphs in our daily lives? • How do we choose which graph to use? • How are graphs used?	• Compute total number of calories consumed • Compute total number of calories used by activities • Read and interpret a nutrition label • Read a graph to find information	• Basic addition and subtraction • Developing and reading graphs	October	• Teacher generated tests and worksheets • Unit Project
HOME IMPROVEMENT	• Painting walls • Determining carpet amounts • Buying floor tiles • Estimating amount of wallpaper	• How is geometry part of the world? • Why do we need standardized units of measurement? • How exact does a measurement have to be?	• Compute the surface area of a room • Find area in square yards when given the dimensions in feet • Find the cost of tiling a room, given the dimensions of a room and cost of tiles • Apply a rule for estimating the cost of wallpaper for a room	• Basic addition, subtraction and multiplication • Converting measurements • Taking measurements • Estimation	November	• Teacher generated tests and worksheets • Unit Project
MATH AND CRAFTS	• Working with a fabric guide • Crafts • Saving scraps • Repeating patterns	• What types of problems are solved with measurement? • What are the various forms of measurement and how can they be	• Use a fabric guide to find the amount of fabric needed • Compute total lengths by adding fractional parts of a finished project • Find the remaining lengths of materials by subtracting	• Basic operations with fractions • Basic measurement • Basic addition, subtraction and multiplication	December	• Teacher generated tests and worksheets • Unit Project

		applied in daily life?	fractional parts of used amount • Use measurement involving fractions as it applies to repeating patterns			
GAMES OF CHANCE	• Flipping coins • What are the chances? • Probability when rolling dice • Using probability • Experimental probability • Making predictions • Cards	• How can predictions be made based on data? • How can you determine the number of all possible outcomes?	• Determine the total number of possible outcomes from a flipping a coin • Determine the probability of a given outcome when rolling one or two dice • Use probability to predict the possibility of an event occurring • Predict the probability of drawing a given card from a 52 – card deck	• Basic probability • Adding, subtracting and multiplying fractions	January	• Teacher generated tests and worksheets • Unit Project
ADJUSTING RECIPES	• Equivalent measurement • Increasing a recipe by multiplying • Decreasing a recipe by dividing	• How do units within a system relate to each other? • What are the various forms of measurement and how can they be applied in daily life?	• Rename an improper fraction to a mixed number in simplest form • Convert measurement units to equivalent measurement units • Adjust recipes by multiplying and dividing fractions and mixed numbers	• Basic multiplication and division • Interpreting a recipe • Reducing fractions	February	• Teacher generated tests and worksheets • Unit Project
USING MATH IN SPORTS	• Bowling • Weight Lifting • Averages	• Why is data collected and organized? • How can information be gathered, recorded and organized?	• Compute bowling scores • Compute with whole numbers in the context of weight lifting • Find average scores	• Basic statistics • Mean, median and mode • Basic addition, subtraction and division	March	• Teacher generated tests and worksheets • Unit Project
FRACTIONS IN THE HOME	• Addition of fractions • Subtraction of fractions • Multiplication of fractions • Division of mixed numbers and fractions	• What is the relationship between fractions and decimals? • When are fractions and whole numbers used together in real life?	• Add fractions to find totals • Subtract fractions to find amounts of leftover materials • Multiply fractions to find area • Divide mixed numbers and fractions	• Basic operations with fractions • Area formulas	April	• Teacher generated tests and worksheets • Unit Project

SPENDING MONEY	• Addition of decimals • Subtraction with decimals	• How does a consumer calculate unit price to find the best buy? • How do we compare prices using unit price, and compare using a price graph?	• Compare decimals • Read prices and write them in decimal form • Find the total amount of a purchase of several items • Compute the amount of change due	• Placement of decimals on a number line • Basic operations involving decimals • Identify coins and values	May	• Teacher generated tests and worksheets • Unit Project
EARNING MONEY	• Multiplication of decimals • Multiplying to find overtime pay • Division of decimals	• What is the difference between gross pay and net pay? • What deductions are taken out of your gross pay?	• Multiply to find gross pay • Divide to find hourly pay if the weekly pay is known • Divide to find weekly salary if the yearly salary is known • Compute overtime pay	• Basic addition, subtraction, division and multiplication	June	• Teacher generated tests and worksheets • Unit Project