

**TOWNSHIP OF FRANKLIN PUBLIC SCHOOLS
MATHEMATICS CURRICULUM
GRADE 6**

SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/ MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
PROBLEM SOLVING	Students will be able to: <ul style="list-style-type: none"> • use problem solving strategies to solve real-life problems that involve planning a class museum. 	<ul style="list-style-type: none"> • Make a table of the collections. • Investigate ways to display collections. • Design an informative display. • Design an advertisement. • Create a number puzzle. • Create a logic puzzle. • Analyze the income and the number of visitors you will have. 	<ul style="list-style-type: none"> • Textbook • Journal • Pencils • Markers • Graphic Organizers • Models 	<ul style="list-style-type: none"> • Booklet • Report • Teacher Observation • Homework 	<p style="text-align: center;"><u>By the end of Grade 6</u></p> 4.5 A.1,5 C.3,4
PROBLEM SOLVING	<ul style="list-style-type: none"> • use a problem solving plan; • look for a pattern in data. 	<ul style="list-style-type: none"> • Have students construct their own world problems by introducing a pattern. Have another group search for the pattern in the word problem. 	<ul style="list-style-type: none"> • Textbook • Journal • Manipulatives • Transparencies 	<ul style="list-style-type: none"> • Mini Quiz • Teacher Observation • Practice Workbook • Reteach Pages 	4.5 C.1
PROBLEM SOLVING	<ul style="list-style-type: none"> • solve problems by reading a table; • solve problems by making a table. 	<ul style="list-style-type: none"> • Use magazines and newspapers to collect information on a topic. After information is gathered, have students make a table in graph form. Have other students interpret the information from the table. 	<ul style="list-style-type: none"> • Textbook • Math Log • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Mini Quiz • Math Journal • Math Log 	4.5 A.3 B.3

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PROBLEM SOLVING	Students will be able to: <ul style="list-style-type: none"> • solve problems by making a list; • use lists to help them solve problems. 	<ul style="list-style-type: none"> • Students construct their own word problems by including a list of items that are needed to solve the problem. 	<ul style="list-style-type: none"> • Textbook • Warm-up Exercises • Math Log • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Mini Quiz • Teacher Observation • Math Journal • Practice Workbook 	4.5 A.1
PROBLEM SOLVING	<ul style="list-style-type: none"> • solve problems using a graph; • color code a map. 	<ul style="list-style-type: none"> • Have students collect random information to graph. • Plan a scavenger hunt for the students 	<ul style="list-style-type: none"> • Math Log • Textbook • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Mini Quiz • Teacher Observation • Math Journal • Practice/ Reteach Copy Master 	4.5 A.1
PROBLEM SOLVING	<ul style="list-style-type: none"> • solve problems by drawing a diagram; • use a diagram to help them solve real life problems. 	<ul style="list-style-type: none"> • Students construct their own quadrilaterals using geoboards and rubber bands. • Use dot paper to draw a box around several 3 x 3 grids and draw as many different shapes as you can. 	<ul style="list-style-type: none"> • Warm Up Exercises • Math Log • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Mini Quiz • Math Journal 	4.5 A.4 C.2

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PROBLEM SOLVING	Students will be able to: <ul style="list-style-type: none"> • use mental math to solve addition and subtraction equations. 	<ul style="list-style-type: none"> • Have an auction where students donate materials. Give each student a set amount of money and subtract/add from their total. • For a calculator activity, write numbers on the board and have students use the numbers to multiply and divide. 	<ul style="list-style-type: none"> • Calculator • Paper • Pencils • Textbook 	<ul style="list-style-type: none"> • Lab Mini Quiz • Math Journal 	4.5 B.1,2
PROBLEM SOLVING	<ul style="list-style-type: none"> • work backward to solve an equation. • work backward to solve real life problems. 	<ul style="list-style-type: none"> • Draw diagrams to show the steps used to solve the problem. • Give students index cards with steps to solve the problem. They will mix the cards to see how it can be solved. 	<ul style="list-style-type: none"> • Math Log • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Mini Quiz • Math Journal • Practice Workbook • Reteach Copy Master 	4.5 A.1
PROBLEM SOLVING	<ul style="list-style-type: none"> • solve a simpler problem; • solve real life problems by solving a simpler problem. 	<ul style="list-style-type: none"> • Have an art exhibit where judges decide to award prizes to some of the contestants. Have the students figure out ways the judges can make their decision. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Math Journal • Mini Quiz • Alternative Assessment Project • Math Log 	4.5 A.1,3 B.4

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PROBLEM SOLVING	Students will be able to: <ul style="list-style-type: none"> • decide which problem solving strategy to use; • use problem solving strategies to solve puzzles. 	<ul style="list-style-type: none"> • Students create a number puzzle. • Students create a logic puzzle. • Have groups of 3 or 4 students work on strategies to solve a word problem. Examples: make a table; use a graph; drawn a diagram; work backward 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Math Journal • Math Log • Mini Quiz 	4.5 A.1,3 B.2,3
PLACE VALUE & OPERATIONS	<ul style="list-style-type: none"> • use place value concepts and operations with whole numbers to solve real life problems that involve managing a software company. 	<ul style="list-style-type: none"> • Design a game that uses addition and subtraction. • Make a form for a bill and fill it out. • Calculate several orders for an imaginary product you will sell. • Try to crack a code on a computer game. 	<ul style="list-style-type: none"> • Textbook • Computer • Paper • pens • Colored Pencils or Markers 	<ul style="list-style-type: none"> • Teacher Observation • Math Journal • Math Log 	4.1 A.1 B.1 4.5 C.6
PLACE VALUE & OPERATIONS	<ul style="list-style-type: none"> • write base ten place value numbers in expanded notation; • use base ten place value numbers to solve real life problems. 	<ul style="list-style-type: none"> • Using an almanac, write the names of 12 states and their population on cards. Students should play in pairs. The first student draws a card and reads the information aloud. The second player draws another card and also reads aloud. The players with the largest number wins both cards. • Have students use Egyptian number system to create a numeric match with present day whole numbers. • Have students create their own number system by using symbols to represent numbers. 	<ul style="list-style-type: none"> • Textbook • Paper • Colored Pencils or Markers • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lab Exercise • Math Journal • Lab Mini Quiz • Teacher Observation 	4.1 A.3

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PLACE VALUE & OPERATIONS	Students will be able to: <ul style="list-style-type: none"> • add and subtract whole numbers by regrouping 	<ul style="list-style-type: none"> • Distribute base ten pieces. Have students use trading procedures to model addition and subtraction with base ten pieces. Make an analogy to the regrouping procedures for paper and pencil computation. 	<ul style="list-style-type: none"> • Base Ten Pieces • Graph Paper • Textbook • Paper • Pencils 	<ul style="list-style-type: none"> • Lab Mini Quiz • Teacher Observation • Math Journal 	4.1 A.1
PLACE VALUE & OPERATIONS	<ul style="list-style-type: none"> • add and subtract whole numbers by regrouping; • find the perimeter of a figure. 	<ul style="list-style-type: none"> • Have students draw their own figures, giving each side a numeric measurement. Have students walk around and find a partner who can find the perimeter of the figure. 	<ul style="list-style-type: none"> • Textbook • Paper • Pencils • Practice Workbook • Enrichment Copy Master 	<ul style="list-style-type: none"> • Math Journal • Math Mini Quiz • Teacher Observation 	4.2 E.2,4
PLACE VALUE & OPERATIONS	<ul style="list-style-type: none"> • use area models to show whole number multiplication; • find the area of a rectangle. 	<ul style="list-style-type: none"> • Use base ten grid paper to draw area models for multiplication problems. Find the area of each model and use the result to find the product. Explain models to the other groups. 	<ul style="list-style-type: none"> • Graph Paper • Paper • Pencils • Textbook • Practice workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Math Journal • Mini Quiz • Lesson Exercises • Math Log 	4.2 D.1 E.2

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PLACE VALUE & OPERATIONS	Students will be able to: <ul style="list-style-type: none"> • model division of whole numbers (3-digit by 2-digit). 	<ul style="list-style-type: none"> • Students will use paper and pencil to solve division problems (3-digit by 2-digit numbers). 	<ul style="list-style-type: none"> • Manipulatives • Counters • Textbook • Paper • Pencils • Grid Paper 	<ul style="list-style-type: none"> • Math Journal • Lab Mini Quiz • Math Log 	4.1 B.3
PLACE VALUE & OPERATIONS	<ul style="list-style-type: none"> • evaluate an expression; • use order of operations. 	<ul style="list-style-type: none"> • Make a class list of pairs of actions or combinations of actions that must be performed in order, such as putting on your socks before your shoes; putting cereal in a bowl, then eating it. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Math Journal • Math Log • Lesson Exercises • Mini Quiz • Alternative Assessment; Project 	4.1 B.7,8
PLACE VALUE & OPERATIONS	<ul style="list-style-type: none"> • use the distributive property; • evaluate variable expressions. 	<ul style="list-style-type: none"> • Choose any 3 digit number and multiply it by 1,001. The result is a 6 digit number that repeats the 3 digit pattern. Challenge a partner to find the pattern. For example: $492 \times 1,001 = 492,492$ 	<ul style="list-style-type: none"> • Textbook • Math Log • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master • Daily Cumulative Review • Manipulatives • Calculators 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz 	4.3 A.1 D.2

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DECIMALS & PERCENTS	Students will be able to: <ul style="list-style-type: none"> • use decimals and percents to solve real life problems that involve planning a trip to another country. 	<ul style="list-style-type: none"> • Students can look in the financial section of a newspaper to look up how much it would cost to buy certain products in another country's currency. (i.e.): <ul style="list-style-type: none"> - Buying pencils in Norway - Staying at a hotel in Japan - Buying food in India • Students can research information to make a travel brochure. 	<ul style="list-style-type: none"> • Textbook • Paper • Pencils • Colored Pencils • Markers 	<ul style="list-style-type: none"> • Teacher Observation • Project • Math Journal • Math Log 	4.5 C.5
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • to model decimals using base-ten pieces. 	<ul style="list-style-type: none"> • Students can use manipulatives or grid paper to draw a picture to explain the difference between 3 tens and 3 tenths. • Students can work in pairs to create models and ask other students to figure out what each model represents. 	<ul style="list-style-type: none"> • Textbook • Manipulatives • Paper • Pencils • Graph/Grid Paper 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini-Quiz 	4.1 A.1,3
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • write decimals in expanded notation; • learn how the choice of a unit changes the decimal representation of a number. 	<ul style="list-style-type: none"> • Have students refer to the produce section of a supermarket circular. Partners can write down the prices of produce in two ways: (i.e.): The dollar price can be written as \$1.99 or 199¢. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Alternative Assessment Project • Mini-Quiz 	4.1 A.2,6

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DECIMALS & PERCENTS	Students will be able to: <ul style="list-style-type: none"> • measure length in the metric system; • change units of length in the metric system. 	<ul style="list-style-type: none"> • Students can work in groups of two or three to measure objects around the room using rulers. Each measurement will have to be converted into another unit of measure, i.e., convert 3 meters (height of a room) into cm. 	<ul style="list-style-type: none"> • Textbook • Rulers • Paper • Pencils • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz 	4.2 D.3
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • to model equivalent decimals using area models. 	<ul style="list-style-type: none"> • On an overhead projector, use copies of figures with shaded regions to show equivalent decimals. 	<ul style="list-style-type: none"> • Base Ten Grid Paper • Plain Paper • Pencils 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz 	4.1 A.1,6
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • represent decimals with number-line models and set models; • use decimals to solve real life problems. 	<ul style="list-style-type: none"> • Have students conduct a survey. Students will plot the results of their survey on a graph. Students will use different symbols to represent decimals. 	<ul style="list-style-type: none"> • Textbook • Math Log • Math Journal • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Mini Quiz 	4.1 A.1 4.4 A.1,2,3
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • know approximate equivalents between standard and metric systems. 	<ul style="list-style-type: none"> • Students can convert customary measurements into metric units and vice versa. 	<ul style="list-style-type: none"> • Rulers • Conversion Charts • Calculators 	<ul style="list-style-type: none"> • Lesson Exercises • Worksheet 	4.2 D.4

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DECIMALS & PERCENTS	Students will be able to: <ul style="list-style-type: none"> • rewrite decimals as fractions; • rewrite decimals as percents. 	<ul style="list-style-type: none"> • Work with a partner. Bring in examples of the many uses of percents in every day life: sales tax, bank interest, sales advertisements from department stores. Make a classroom display of all the examples. Convert decimals to percents and rewrite fractions as decimals and vice versa. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Math Journal • Lesson Exercises • Partner Quiz 	4.1 A.5,6
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • order decimals; • use ordering of decimals to solve real life problems. 	<ul style="list-style-type: none"> • Students will work in two's or three's and use a centimeter ruler to draw a number line that is over 20 cm long. Draw 11 tick marks on the line, 2 cm apart. Then label the marks from 1 - 10. Have students make a list of 5 numbers with decimals to plot on the number line. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Mini Quiz • Alternative Assessment: Project 	4.1 A.1,8
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • round decimals; • to use rounding of decimals to solve real life problems. 	<ul style="list-style-type: none"> • Have students look in the sports section of the paper to see batting averages of players in major league baseball. Have students create statistics for "at bats" for players and adjust their overall batting average. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Math Log • Math Journal • Mini Quiz 	4.1 C.1

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DECIMALS & PERCENTS	Students will be able to: <ul style="list-style-type: none"> • use fractions to solve real life problems; • use percents to solve real life problems. 	<ul style="list-style-type: none"> • Have students use examples in the text to create their own work problems where fractions/decimals are involved in the solution. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercise • Math Journal • Math Log • Mini Quiz 	4.1 A.5,6 B.2
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> • use scale drawings and problem solving skills to gain a deeper understanding of fractions, ratios, and proportions. 	<ul style="list-style-type: none"> • Plan an apartment by: <ul style="list-style-type: none"> - making a scale drawing of the design. - compare the width-to-length ratios in the blueprint of the rooms. - compare a blueprint of the actual apartment. - find the number of boxes of tiles needed to cover the floors. 	<ul style="list-style-type: none"> • Textbook • 1" Inch Grid Paper • Ruler • Colored Pencils 	<ul style="list-style-type: none"> • Teacher Observation • Chapter Project 	4.1 A.4 4.2 D.2
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> • model fractions using part-to-whole models and to show that different fractions can represent the same amount. 	<ul style="list-style-type: none"> • Students can use paper to fold/represent different fractions. • Students can make their own models in pairs and ask others to write down the fraction the model represents. 	<ul style="list-style-type: none"> • Grid Paper • Centimeter Ruler • Colored Pencils, Pens, or Markers 	<ul style="list-style-type: none"> • Lab Exercise • Math Journal • Lab Mini Quiz 	4.1 A.1

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FRACTIONS, RATIOS, & PROPORTIONS	Students will be able to: <ul style="list-style-type: none"> • write fractions; • use fractions to solve real life problems. 	<ul style="list-style-type: none"> • Students can work in teams and take turns. First team draws three strips and must use the number to write a proper fraction, an improper fraction, and a mixed number. Replace strips. Second team takes a turn. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz 	4.1 A.1
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> • model fractions and mixed numbers using set models and to solve problems involving fractions and mixed numbers using set models. 	<ul style="list-style-type: none"> • Students can work in pairs to create their own set models. This will require students drawing models and asking students to see if the model can be divided equally by a fractional number. 	<ul style="list-style-type: none"> • Textbook • Plan Paper • Colored Pencils or Markers 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz 	4.1 A.1
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> • see the relationship of how fractions are related to division; • write ratios. 	<ul style="list-style-type: none"> • Students can draw images of objects, i.e., a kite, and give height and width. Students would have to figure out the ratio according to the height and width of the kite. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Math Log • Mini Quiz 	4.1 A.4

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FRACTIONS, RATIOS, & PROPORTIONS	Students will be able to: <ul style="list-style-type: none"> • decide if two fractions are equivalent; • decide whether two ratios are equivalent. 	<ul style="list-style-type: none"> • Write three equivalent fractions telling what part of the 50 United States is represented by the states that border the Atlantic Ocean; by those that border Canada; by those that border the Gulf of Mexico. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Math Mini Quiz 	4.1 A.6
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> • simplify a fraction; • solve a proportion. 	<ul style="list-style-type: none"> • Students can work in pairs. Partner #1 writes 3 examples to simplify a fraction. Partner #2 creates a word problem using a proportion. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Math Mini Quiz 	4.1 A.4,6
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> • compare fractions using models. 	<ul style="list-style-type: none"> • Students can work in pairs to compare a fraction using a number-line model and a rectangular model. Partner #1 will make a number-line model and partner #2 will make a rectangular model. 	<ul style="list-style-type: none"> • Textbook • Plain Paper • Pencils 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz 	4.1 A.8

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FRACTIONS, RATIOS, & PROPORTIONS	<p>Students will be able to:</p> <ul style="list-style-type: none"> compare and order fractions; compare and order fractions to solve real life problems. 	<ul style="list-style-type: none"> Make 20 cards with various fractions on them. The game is played with partners. Each player is dealt three cards. For each turn, one card is drawn and one card is played by each player. The player with the greatest fractions wins both cards. If there is a doubt which is the greatest fraction, determine by expressing both fractions with the same denominator. When all the cards have been used, the player with the most cards is the winner. 	<ul style="list-style-type: none"> Textbook Practice Workbook Retaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercise Math Journal Math Log Mini Quiz 	<p>4.1 A.8 4.5 A.1</p>
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> Rewrite improper fractions and mixed numbers; Use fractions greater than one to solve real life problems. 	<ul style="list-style-type: none"> Students can work in pairs to draw a model for mixed numbers: $1\frac{1}{2}$, $1\frac{2}{3}$; $2\frac{1}{5}$, $3\frac{1}{4}$. Each student would draw a model for 2 fractions. After the model is drawn, the student would write the improper fraction next to the model. 	<ul style="list-style-type: none"> Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Math Log Mini Quiz 	<p>4.1 A.1</p>
FRACTIONS, RATIOS, & PROPORTIONS	<ul style="list-style-type: none"> use ratios to find probabilities; interpret probabilities. 	<ul style="list-style-type: none"> Have students work in small groups. Place 12 cards in a bag, each with 1 month of the year written on it. Students begin by predicting the probability of picking their birthday months. Have students pick 1 card, record the month picked, and replace the card. Repeat 12 times. How do their experimental results compare with their calculated probability for choosing each month? 	<ul style="list-style-type: none"> Index Cards Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Math Log Math Mini Quiz 	<p>4.1 A.4 4.4 B.1,2</p>

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MULTIPLYING & DIVIDING FRACTIONS	<p>Students will be able to:</p> <ul style="list-style-type: none"> Use area models to multiply two fractions. 	<ul style="list-style-type: none"> Students can work in pairs to draw a 6 x 6 square to represent 1 square unit. Then, students will divide the square into 6 vertical parts and 2 horizontal parts. Label the distances. Next, students shade 4/6 of the square. In the second color, shade 1/2 of the square. Students must explain the model. 	<ul style="list-style-type: none"> Grid Paper Colored Pencils or Markers Pencils or Pens Textbook 	<ul style="list-style-type: none"> Math Journal Lab Mini Quiz Lesson Exercises Teacher Observation 	<p>4.2 D.1 E.3</p>
MULTIPLYING & DIVIDING FRACTIONS	<ul style="list-style-type: none"> use reciprocals to divide fractions; use division of fractions to solve real life problems. 	<ul style="list-style-type: none"> Have students work in a group of two. Partners #1 & #2 should list numbers on a piece of paper. Partner #3 will write answers on another piece of paper. Students can walk around and ask other students to write the reciprocal to a problem. 	<ul style="list-style-type: none"> Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercises Teacher Observation Math Journal Math Log Math Mini Quiz 	<p>4.3 D.2</p>
MULTIPLYING & DIVIDING FRACTIONS	<ul style="list-style-type: none"> find area of a right triangle. 	<ul style="list-style-type: none"> Using an index cards, students can fold it in half at the center and cut. This will form two right angles. Ask students to use a ruler to measure length and width (should be 3 x 5"). Use formula to find the area of the right triangle. 	<ul style="list-style-type: none"> Ruler Scissors Index Cards Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Math Log Math Mini Quiz 	<p>4.2 E.2</p>

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & PATTERNS	<p>Students will be able to:</p> <ul style="list-style-type: none"> • use paper folding to learn about angles and polygons; • develop a better intuitive understanding of congruence, symmetry, area, and geometric patterns. 	<ul style="list-style-type: none"> • Have students work in groups of three and four. Provide library books about origami shapes. Ask more experienced students who have worked with origami to lead groups and provide guidance on how to make origami shapes. 	<ul style="list-style-type: none"> • Textbook • Resource Books • Grid Paper/8 ½ x 11 Paper 	<ul style="list-style-type: none"> • Teacher Observation • Project Assessment 	4.2 A.4
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> • describe geometric figures; • identify geometric figures. 	<ul style="list-style-type: none"> • Have pairs of students write triangle, quadrilateral, pentagon, hexagon, octagon, and decagon on one side of cards, and draw an example on the other side. Have one student draw a card and the second student make that figure on the geoboard. First student must agree to the correct formation. Reverse roles and draw again. 	<ul style="list-style-type: none"> • Textbook • Geoboards • Index Cards • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Lesson Exercises • Math Journal • Math Log • Math Mini Quiz 	4.2 A.2
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> • become familiar with turns, rotations, and their effects on figures in a plane. 	<ul style="list-style-type: none"> • Have students use grid paper to draw shapes. Students should practice turns and rotations by tracing shapes and cutting them out to use as a manipulative. 	<ul style="list-style-type: none"> • Textbook • Grid or Dot Paper • Pencils or Pens 	<ul style="list-style-type: none"> • Teacher Observation • Lab Exercises • Math Journal • Lab Mini Quiz 	4.2 B.1

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GEOMETRY & PATTERNS	Students will be able to: <ul style="list-style-type: none"> • identify types of angles; • use a protractor to measure angles. 	<ul style="list-style-type: none"> • Students can work in pairs to draw different size angles. Partner #1 can draw the angles; Partner #2 can label whether the angle is acute, obtuse, or a right angle, and give its measurement using a protractor. Partners can reverse roles. 	<ul style="list-style-type: none"> • Textbook • Protractor • Reteaching Copy Master • Enrichment Copy Master • Practice Workbook 	<ul style="list-style-type: none"> • Lesson Exercises • Math Mini Quiz • Teacher Observation • Math Journal 	4.2 A.1 E.1
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> • identify congruent and similar shapes; • use congruence to solve real life problems. 	<ul style="list-style-type: none"> • Students can work in a pair to trace and cut out geometric figures. If possible, students should draw lines that can be used to divide each figure into two congruent parts. Then cut along the lines and check to see whether the pieces in each pair are congruent. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Math Mini Quiz • Math Journal • Math Log 	4.2 A.3,4
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> • recognize and create flipped images of figures in a plane. 	<ul style="list-style-type: none"> • Students can work in cooperative groups to design and create images of figures on a plane. Students will be asked to give the image to another student so he or she can draw a line about the figure that can be flipped to produce another image. Students will trace and prove the image is congruent to the original image. 	<ul style="list-style-type: none"> • Textbook • Grid Paper • Tracing Paper • Colored Pencils or Markers • Straight Edge • Protractor 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz • Teacher Observation 	4.2 A.4

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & PATTERNS	Students will be able to: <ul style="list-style-type: none"> • identify line symmetry; • use line symmetry to solve real life problems. 	<ul style="list-style-type: none"> • Fold a sheet of paper in half. Cut from the folded side to make the following figures. Each should have line symmetry about the fold. <ul style="list-style-type: none"> - Heart - Letter H - Square - Letter T - Kite - Letter E 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • enrichment Copy Master • Paper • Scissors 	<ul style="list-style-type: none"> • Lesson Exercises • Teacher Observation • Math Journal • Math Log • Mini Quiz 	4.2 A.4
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> • plot points in a coordinate plane; • identify slides in a coordinate plane. 	<ul style="list-style-type: none"> • A student and a partner can each draw the same figure in a coordinate plane. Without the partner looking, sketch a slide of the figure. Label the coordinates of each vertex. Describe the slide to your partner. The partner draws the new figure and names the coordinates of each vertex. Is each partner's slide correct? Repeat. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Teacher Observation • Math Journal • Math Log • Mini Quiz 	4.2 C.1
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> • identify triangles by their sides; • identify triangles by their angles. 	<ul style="list-style-type: none"> • Make a mobile. Construct and label different kinds of triangles, each from different colored paper. Attach each to a mobile with string. Display the mobiles for the class to share. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master • String • Construction Paper 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Teacher Observation • Mini Quiz 	4.2 A.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & PATTERNS	<p>Students will be able to:</p> <ul style="list-style-type: none"> discover that the sum of the measures of the angles of any triangle is 180°. 	<ul style="list-style-type: none"> Students can use a ruler to draw two different right triangles on a sheet of paper. Label the triangles as "Right Triangle #1" and "Right Triangle #2." Then label the angles of each triangle as "$\angle A$, $\angle B$ $\angle C$." Copy a table and measure the angles. Compare each angle measurement. 	<ul style="list-style-type: none"> Textbook Ruler Protractor Paper Pens/Pencils 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Lab Mini Quiz Teacher Observation 	4.2 A.1
GEOMETRY & PATTERNS	<ul style="list-style-type: none"> measure the angles of a triangle; use patterns to explore properties of the angles of a triangle. 	<ul style="list-style-type: none"> Cut a triangle out of paper. Tear off the three corners and tape back together. Record observations. 	<ul style="list-style-type: none"> Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master Paper Scissors 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Math Mini Quiz Teacher Observation 	4.2 A.1 E.1
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> apply the problem solving strategies they have studied to solve a variety of real life problems that relate to volunteer work and that involve addition and subtraction of mixed numbers. They also become more aware of the possibilities of volunteer work in their community. 	<ul style="list-style-type: none"> Deliver meals to homebound people. Sort bottles and cans at a recycling center. Publicize a fund raising event held by the humane society. Help your neighborhood group raise money for a playground. Volunteer at the library. Make a booklet out of several pieces of paper. Write "Community Service Diary." Contact community service organizations and volunteer time and record observations in the diary. 	<ul style="list-style-type: none"> Textbook Paper Pencils Colored Pencils or Markers 	<ul style="list-style-type: none"> Teacher Observation Chapter Project 	4.1 B.2

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ADDING & SUBTRACTING FRACTIONS	<p>Students will be able to:</p> <ul style="list-style-type: none"> measure lengths with U.S. Customary Units; rewrite measurement of length. 	<ul style="list-style-type: none"> Use a ruler to draw line segments that have the following lengths: 7/8 in.; 1-1/2 in.; 3-3/8 in.; 2-1/4 in. Choose 2 of the measurements given above. Explain how you can use a ruler to find the sum of these lengths. 	<ul style="list-style-type: none"> Textbook Ruler Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercise Math Journal Math Log Teacher Observation Mini Quiz 	4.2 D.5
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> find common denominators of two fractions; find the least common denominator of two fractions. 	<ul style="list-style-type: none"> Take turns with a partner. First student gives two fractions with unlike denominators. Second student describes a situation in which the two fractions might be used. For example, in a cake recipe. Students work together to rename the fractions as like fractions, using the CCD. 	<ul style="list-style-type: none"> Textbook Ruler Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercise Math Journal Math Log Teacher Observation Mini Quiz 	4.1 A.7
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> add and subtract fractions using models. 	<ul style="list-style-type: none"> Have students work in pairs to construct fraction models. Partner #1 will construct an addition model, drawing the model and number sentence. Partner #2 will construct a subtraction model. 	<ul style="list-style-type: none"> Textbook Paper Colored Pencils Markers or Pens Fraction Strips 	<ul style="list-style-type: none"> Lab Mini Quiz Math Journal Lab Exercises 	4.1 B.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
ADDING & SUBTRACTING FRACTIONS	Students will be able to: <ul style="list-style-type: none"> • add and subtract fractions with a common denominator. 	<ul style="list-style-type: none"> • Have students work in pairs. Partner #1 will write 2 problems - 1 addition with a common denominator and one addition problem with different denominators. Partner #2 will write 2 problems using subtraction. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Mini Quiz • Math Journal • Lesson Exercises 	4.1 B.2
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> • add and subtract mixed numbers using models. 	<ul style="list-style-type: none"> • Students will work in pairs. Have each partner construct a model and number sentence representing a mixed number using addition and subtraction. 	<ul style="list-style-type: none"> • Textbook • Paper • Colored Pencils • Markers • Pencils/Pens 	<ul style="list-style-type: none"> • Teacher Observation • Mini Quiz • Math Journal • Lesson Exercises 	4.1 B.2
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> • add mixed numbers; • subtract mixed numbers. 	<ul style="list-style-type: none"> • Students will make their own problems using addition/subtraction of mixed numbers. Students can walk around the room and ask others to solve their problems. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Mini Quiz • Math Journal 	4.1 B.2
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> • subtract with regrouping; • use subtraction and regrouping to solve real life problems. 	<ul style="list-style-type: none"> • Ask the music teacher if 4 students could keep track of the number of hours they practiced during the week. Find the difference between the practice times for the students. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Mini Quiz • Math Journal • Lesson Exercises 	4.1 B.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/ MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
ADDING & SUBTRACTING FRACTIONS	Students will be able to: <ul style="list-style-type: none"> • model the subtraction of mixed numbers with renaming and regrouping. 	<ul style="list-style-type: none"> • Have students record the steps for subtracting mixed numbers that require renaming and regrouping. Also, have students illustrate the steps with an example. 	<ul style="list-style-type: none"> • Textbook • Paper • Colored Pencils • Markers • Pencil/Pens 	<ul style="list-style-type: none"> • Teacher Observation • Math Journal • Lab Mini Quiz • Math Log 	4.1 A.7 B.2
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> • regroup to subtract; • use subtraction and regrouping to solve real life problems. 	<ul style="list-style-type: none"> • Students will look for a pattern. They will imagine that they bought a set of wrenches that have the following measurements (in inches). Which pairs of wrenches have measurements that differ by $\frac{5}{16}$? Explain how you made your choices. <p style="text-align: center;">$\frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{9}{16}, \frac{5}{8}, \frac{11}{16}, \frac{3}{4}, \frac{13}{16}, \frac{7}{8}, \frac{15}{16}, 1, 1-\frac{1}{16}, 1-\frac{1}{8}, 1-\frac{3}{16}, 1-\frac{1}{4}$</p>	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Math Journal • Mini Quiz • Math Log 	4.1 B.2
ADDING & SUBTRACTING FRACTIONS	<ul style="list-style-type: none"> • use addition and subtraction of fractions to solve problems; • use addition and subtraction of decimals to solve problems. 	<ul style="list-style-type: none"> • Have students work in pairs to draw a diagram on how they solved a problem in their textbook. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Math Log • Mini Quiz • Mini Quiz 	4.1 B.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
DECIMALS & PERCENTS	<p>Students will be able to:</p> <ul style="list-style-type: none"> develop a better understanding of operations with decimals by solving real life problems related to restaurant management; enhance communication skills to prepare a menu and a training booklet for new employees at a restaurant. 	<ul style="list-style-type: none"> Write a sample bill with its total. Explain how to calculate a tip. Calculate an employee's wages. Construct/develop a training manual for new employees at a restaurant. Use estimation to see if your answer is reasonable. 	<ul style="list-style-type: none"> Textbook Paper Pencils or Pens Colored Pencils or Markers 	<ul style="list-style-type: none"> Teacher Observation Project Math Journal 	4.1 A.1 C.2,3,6
DECIMALS & PERCENTS	<ul style="list-style-type: none"> model addition and subtraction of decimals using base ten pieces. 	<ul style="list-style-type: none"> Students can work in pairs to model addition and subtraction with base ten pieces. Partner #1 can model an addition problem. Partner #2 can model a subtraction problem. 	<ul style="list-style-type: none"> Base Ten Pieces or Grid Paper Paper Pencils Textbook 	<ul style="list-style-type: none"> Teacher Observation Lab Exercises Math Journal Lab Mini Quiz 	4.1 B.2
DECIMALS & PERCENTS	<ul style="list-style-type: none"> add decimals; use decimal addition to solve real life problems. 	<ul style="list-style-type: none"> Students can work in pairs. Have them look at sample of menus from various restaurants. Let them pick out what foods they want to eat and list the price. Then, have them add up their bill. 	<ul style="list-style-type: none"> Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Teacher Observation Lesson Exercises Math Journal Mini Quiz 	4.1 B.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD						
DECIMALS & PERCENTS	Students will be able to: <ul style="list-style-type: none"> • subtract decimals; • learn how to use decimal subtraction to solve real life problems. 	<ul style="list-style-type: none"> • With a partner, take turns being the sales clerk. The clerk should first subtract to find the change. Draw a sketch of the change (coins or bills). Then, use the sketch to count the change that is handed back. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Lesson Exercises • Math Journal • Mini Quiz 	4.1 B.2						
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • subtract decimals; • learn how to use decimal subtraction to solve real life problems. 	<ul style="list-style-type: none"> • Work in pairs to plan a nutritious dinner for 4 people. Bring in circulars from 3 food stores. Estimate the cost for the meal to the nearest \$10.00 at each of the 3 stores. Make a decision as to which store offers the best overall value for purchasing these ingredients. Determine whether your estimates are overestimated or underestimated. 	<ul style="list-style-type: none"> • Textbook • Store Circulars • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercise • Math Journal • Math Log • Mini Quiz • Teacher Observation 	4.1 A.1,2 B.1,2,4						
DECIMALS & PERCENTS	<ul style="list-style-type: none"> • multiply decimals; • use decimal multiplication to find a percent of a number. 	<ul style="list-style-type: none"> • Group Activity - use a calculator to find each product: <table style="margin-left: 20px; border: none;"> <tr> <td style="padding-right: 20px;">1) 12×3</td> <td>4) 0.12×3</td> </tr> <tr> <td>2) 1.2×3</td> <td>5) 0.12×0.3</td> </tr> <tr> <td>3) 1.2×0.3</td> <td>6) 0.12×0.03</td> </tr> </table> <p>With others in the group, discuss how the number of decimal places in the factors is related to the number of decimal places in the product. Test your conclusion with the product 0.12×0.003.</p> 	1) 12×3	4) 0.12×3	2) 1.2×3	5) 0.12×0.3	3) 1.2×0.3	6) 0.12×0.03	<ul style="list-style-type: none"> • Textbook • Calculator • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz 	4.1 A.5
1) 12×3	4) 0.12×3										
2) 1.2×3	5) 0.12×0.3										
3) 1.2×0.3	6) 0.12×0.03										

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/ MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
STATISTICS & GRAPHS	Students will be able to: <ul style="list-style-type: none"> • solve real life percent problems; • solve problems with a bar graph. 	<ul style="list-style-type: none"> • Conduct a survey of a topic like each grade's favorite T.V. show. Record results using a bar graph. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Mini Quiz • Teacher Observation • Math Journal 	4.1 A.5
STATISTICS & GRAPHS	<ul style="list-style-type: none"> • use a questionnaire to take a class survey; • collect and organize data about class members; • create a poster display for their results. 	<ul style="list-style-type: none"> • Students can conduct their own survey. For example: <ol style="list-style-type: none"> 1) How many letters are in your first name? 2) On what date of the month is your birthday? 	<ul style="list-style-type: none"> • Textbook • Poster Board • Paper • Pens, Colored Pencils or Markers • Metric Rulers 	<ul style="list-style-type: none"> • Teacher Observation • Project • Math Journal 	4.4 A.1
STATISTICS & GRAPHS	<ul style="list-style-type: none"> • make a tally sheet and a frequency table to organize data. 	<ul style="list-style-type: none"> • Students can work in pairs to conduct a survey and make a tally sheet and a frequency table to organize data. 	<ul style="list-style-type: none"> • Textbook • Paper • Pencils 	<ul style="list-style-type: none"> • Teacher Observation • Lab Exercises • Math Journal 	4.4 A.2
STATISTICS & GRAPHS	<ul style="list-style-type: none"> • draw a line plot; • interpret a line plot. 	<ul style="list-style-type: none"> • Work with a partner or small group. Contact people in your community to find out how they use graphs in their businesses and careers. You might ask parents, relatives, friends, and other employed in your community. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Teacher Observation • Lesson Exercises • Math Log • Math Journal • Mini Quiz 	4.4 A2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/ MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
STATISTICS & GRAPHS	Students will be able to: <ul style="list-style-type: none"> • model whole number averages of two or more numbers using coins. • model the average of two numbers using a number line. 	<ul style="list-style-type: none"> • Collect and record all the grades you have received on homework and test papers for the last marking period. Then find the average of the grades. Use a number line to model the grades and the results. 	<ul style="list-style-type: none"> • Counters or Coins • Plain paper • Pencils • Textbook 	<ul style="list-style-type: none"> • Lab Exercises • Lab Mini Quiz • Math Log • Math Journal 	4.4 A.2
STATISTICS & GRAPHS	<ul style="list-style-type: none"> • find the average, or mean, of two or more numbers; • use averages to solve real life problems. 	<ul style="list-style-type: none"> • In an almanac or encyclopedia, look up figures for a category such as: Percent of unemployed 1999 and 2000; find the average of the 2 figures. 	<ul style="list-style-type: none"> • Almanac or Encyclopedia • Practice Workbook • Reteach Copy Master • Enrichment Copy Master • Textbook • Calculators 	<ul style="list-style-type: none"> • Lesson Exercises • Math Log • Math Journal • Mini Quiz • Teacher Observation 	4.4 A.2
STATISTICS & GRAPHS	<ul style="list-style-type: none"> • find the median of a set of numbers; • find the mode of a set of numbers. 	<ul style="list-style-type: none"> • Students can work in pairs to create a set of numbers related to a word problem. Students would walk around and solicit other groups to solve their problem. 	<ul style="list-style-type: none"> • Practice Workbook • Reteach Copy Master • Enrichment Copy Master • Textbook • Calculators 	<ul style="list-style-type: none"> • Lesson Exercises • Math Log • Math Journal • Mini quiz • Teacher Observation 	4.4 A.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/ MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
STATISTICS & GRAPHS	Students will be able to: <ul style="list-style-type: none"> • draw a bar graph; • choose a scale for a graph. 	<ul style="list-style-type: none"> • Have students work in a group of 3. Have students choose a scale for a bar graph based on this information: “The three tallest buildings in Chicago, Illinois are the Sears Tower (1,450 ft.), the Amoco Building (1,136 ft.), and the John Hancock Center (1,127 ft.). Draw a bar graph for the data. 	<ul style="list-style-type: none"> • Practice Workbook • Reteach Copy Master • Enrichment Copy Master • Textbook 	<ul style="list-style-type: none"> • Lesson Exercises • Math Log • Math Journal • Mini quiz • Teacher Observation 	4.4 A.1,2,3
STATISTICS & GRAPHS	<ul style="list-style-type: none"> • draw a line graph; • use a line graph to recognize a trend in real life data. 	<ul style="list-style-type: none"> • Supply information on an item such as the average price of a pair of sneakers over time. Have students work in pairs to construct a line graph to represent the data. • Generate questions about your graph. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Math Mini Quiz 	4.4 A.1,2
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • use the geometric concepts and formulas of the chapter to describe a city of their own design; • use critical thinking skills and logical reasoning to decide what kinds of districts, parks, and other features are desirable and where they should be located. 	<ul style="list-style-type: none"> • Have students work in pairs to design a city. They can use these special topics: <ul style="list-style-type: none"> - Lay out the major streets; - Add special streets leading to landmarks; - Explore patterns in the city streets; - Include a park in your city plans. 	<ul style="list-style-type: none"> • Textbook • Sheets of Paper • Colored Pencils or Markers • Rulers 	<ul style="list-style-type: none"> • Project • Teacher Observation • Math Journal • Math Log 	4.2 B.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/ MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & MEASUREMENT	Students will be able to: <ul style="list-style-type: none"> • describe and identify parallel lines, intersecting lines, and perpendicular lines. 	<ul style="list-style-type: none"> • Have students draw examples of parallel, intersecting, and perpendicular lines. Each student should explain the meaning of parallel lines, intersecting lines, and perpendicular lines. 	<ul style="list-style-type: none"> • Textbook • Dot Paper • Colored Pencils or Markers • Ruler 	<ul style="list-style-type: none"> • Lab Mini Quiz • Teacher Observation • Math Journal • Math Log 	4.2 A.1
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • identify parallel and intersecting lines; • identify perpendicular lines. 	<ul style="list-style-type: none"> • Copy or draw a sports playing field, such as a football field, a soccer field, or a basketball court. On your drawing, identify and label pairs of parallel lines, perpendicular lines, and intersecting lines. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Teacher Observation • Math Mini Quiz • Math Journal • Math Log 	4.2 A.1
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • identify parallelograms; • use the properties of parallelograms. 	<ul style="list-style-type: none"> • Have students write about the following: <ol style="list-style-type: none"> 1) Draw a large parallelogram with a 60° angle; 2) Use a protractor to measure the other angles: 60°, 120°, 120°. 3) Explain how to find the measures without using a protractor. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz • Teacher Observation 	4.2 A.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & MEASUREMENT	Students will be able to: <ul style="list-style-type: none"> • discover a rule for the area of a triangle. 	<ul style="list-style-type: none"> • Have students work in pairs. Partners will draw a parallelogram on grid paper. Cut it out. Draw a diagonal on the parallelogram. Cut along the diagonal to form two triangles. Compare the triangles. What can you conclude? 	<ul style="list-style-type: none"> • Textbook • Grid paper • Colored Pencils or Markers • Ruler • Scissors 	<ul style="list-style-type: none"> • Lab Mini Quiz • Teacher Observation • Math Journal • Math Log 	4.2 E.2
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • find the area of a triangle; • use the area of a triangle to solve real life problems. 	<ul style="list-style-type: none"> • Students can work with partners. Draw a large obtuse triangle and have a partner draw a large acute triangle. <ol style="list-style-type: none"> 1) Use a ruler to find the area of your triangle; 2) Trade and find the area of your partner's triangle; 3) Compare your results. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Partner Quiz 	4.2 E.2
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • discover that for every circle, the ratio of the circumference to the diameter is the same - the constant π. 	<ul style="list-style-type: none"> • Students work in pairs. <ol style="list-style-type: none"> 1) Cut 2-1" wide strips of construction paper; 2) Use one of the strips to measure the diameter of the can; 3) Use the other strip to measure the circumference of the can; 4) Use your "diameter strip" to measure "circumference strip." 	<ul style="list-style-type: none"> • Textbook • Construction Paper • Pencils or Pens • Ruler • Scissors • Round Can 	<ul style="list-style-type: none"> • Lab Mini Quiz • Lab Exercise • Math Journal • Math Log 	4.2 E.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & MEASUREMENT	Students will be able to: <ul style="list-style-type: none"> • find the circumference of a circle to solve real life problems. 	<ul style="list-style-type: none"> • Work in small groups. Bring in as many examples as you can find of circles (bottle caps, disks, buttons). Find the circumference of each, and on each circle, write its diameter and circumference. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz 	4.2 E.2
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • develop informal ways of estimating measurements of familiar objects. 	<ul style="list-style-type: none"> • Have students trace their hands on grid paper and estimate the area of their hand. • Have students choose 2 more irregular shaped objects and determine the areas of those shapes. • Check to see if your answers are reasonable. 	<ul style="list-style-type: none"> • Grid Paper • Practice Worksheet 	<ul style="list-style-type: none"> • Lesson Exercises • Teacher Observation 	4.1 B.6 4.2 E.5
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • discover that the area of a circle is the product of one half the circumference and the radius. 	<ul style="list-style-type: none"> • Have students work in pairs to accomplish the following: <ol style="list-style-type: none"> 1) Fold the circle in half 4 times; 2) Cut the circle into 16 wedges; 3) Cut 1 wedge in half; 4) Rearrange the wedges to form a rectangle. 	<ul style="list-style-type: none"> • Textbook • Paper • Pencils or Pens • Scissors • Tape/Glue 	<ul style="list-style-type: none"> • Lab Exercise • Math Journal • Lab Mini Quiz • Teacher Observation 	4.2 E.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & MEASUREMENT	Students will be able to: <ul style="list-style-type: none"> • find the area of a circle; • use the area of a circle to solve real life problems. 	<ul style="list-style-type: none"> • Have students draw their own circles giving the numbers for: $\text{Area} = \Pi (3.14) \times (\frac{1}{2} \times \text{diameter})^2$ 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercise • Math Journal • Math Log • Teacher Observation • Mini Quiz 	4.2 E.2
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> • make a circle graph; • use a circle graph to organize real life data. 	<ul style="list-style-type: none"> • Students should make a circle graph with the following information: “Students in the class were asked about their favorite sport. Organize the results below with a circle graph.” Baseball - 9 Football - 3 Basketball - 9 Swimming - 3 Tennis - 3 Soccer - 9 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteach Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercise • Math Journal • Math Log • Teacher Observation • Mini Quiz 	4.4 A.2,3

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & MEASUREMENT	<p>Students will be able to:</p> <ul style="list-style-type: none"> • find the surface area of a rectangular prism; • find the volume of a rectangular prism. 	<ul style="list-style-type: none"> • Have students write: Volume = Length x Width x Height <p>Have pairs write problems about volume, leaving out one dimension. Exchange index cards with another pair to solve. Both groups should agree on the solutions. Pass out another card and have pairs develop another problem, leaving out a different dimension. Exchange cards. Continue until each dimension is used.</p>	<ul style="list-style-type: none"> • Textbook • Index Cards • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz 	4.2 E.3
INTEGERS & THE COORDINATE PLANE	<ul style="list-style-type: none"> • use the number line, the coordinate plane, and addition and subtraction of integers to solve realistic problems about Antarctica. 	<ul style="list-style-type: none"> • Students can work in pairs to research facts about Antarctica. Students will write an article. These are some of the topics that can be used: <ul style="list-style-type: none"> - Change temperatures in degrees Celsius to degrees Fahrenheit; - Find the average temperature for a week; - Find the height of an iceberg. 	<ul style="list-style-type: none"> • Textbook • Paper • Pencils • Word Processor 	<ul style="list-style-type: none"> • Project • Teacher Observation • Math Journal 	4.1 A.1

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
INTEGERS & THE COORDINATE PLANE	<p>Students will be able to:</p> <ul style="list-style-type: none"> discover that there are numbers less than zero and they are named using the “ - “ sign. 	<ul style="list-style-type: none"> Make a timeline of your life. Mark the point of your birth as 0. Under the 0, write the year you were born. On the line, mark the year you started school, the year your brothers and sisters were born, if that applies. On the line write the integers that apply to each event. To the left of the 0 and the year of your birth, mark the years when other special events happened in the life of your family. 	<ul style="list-style-type: none"> Textbook Calculator Pencils/Pens Paper 	<ul style="list-style-type: none"> Lab Exercises Math Journal Lab Mini Quiz 	4.1 A.1
INTEGERS & THE COORDINATE PLANE	<ul style="list-style-type: none"> graph integers on a number line; use integers to solve real life problems. 	<ul style="list-style-type: none"> Use a number line to order the numbers from least to greatest. Describe a real life situation in which these numbers could occur: 1) -6, 2, 3, -3, -5 2) 0, -2, 2, -5, 5 	<ul style="list-style-type: none"> Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Math Log Mini Quiz 	4.1 A.1
INTEGERS & THE COORDINATE PLANE	<ul style="list-style-type: none"> use number counters to model integer addition. 	<ul style="list-style-type: none"> Students will work in pairs to use number counters to model integer addition. 1) Students should use number counters to represent the equation; 2) Count the total; 3) Write the result as an equation. 	<ul style="list-style-type: none"> Textbook Number Counters Pencils Paper 	<ul style="list-style-type: none"> Lab Exercises Math Journal Lab Mini Quiz 	4.1 A.1

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
INTEGERS & THE COORDINATE PLANE	Students will be able to: <ul style="list-style-type: none"> • use a number line to add integers; • use a number line for integer addition to solve real life problems. 	<ul style="list-style-type: none"> • Students should be given copies of a golf score card. In golf, your score for each hole is the number of strokes you take above or below the par. Find the total score above or below par. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Math Mini Quiz 	4.1 A.1
INTEGERS & THE COORDINATE PLANE	<ul style="list-style-type: none"> • use number counters to model integer subtraction. 	<ul style="list-style-type: none"> • Students can work in pairs to investigate integer subtraction. <ol style="list-style-type: none"> 1) Use counters to model the 1st number; 2) If there are not enough counters to do the subtraction, add zero pairs so that you can do the subtraction; 3) Use the 2nd number to decide how many counters to subtract; 4) Count remaining numbers and write your result as an equation. 	<ul style="list-style-type: none"> • Textbook • Number Counters • Pencils • Paper 	<ul style="list-style-type: none"> • Lab Exercise • Math Journal • Lab Mini Quiz • Teacher Observation 	4.1 A.1
INTEGERS & THE COORDINATE PLANE	<ul style="list-style-type: none"> • use a number line to subtract integers; • use integer subtraction to solve real life problems. 	<ul style="list-style-type: none"> • Students should work in a group to use a number line to find the difference. Explain your steps. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercise • Math Journal • Teacher Observation • Mini Quiz 	4.1 A.1

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
INTEGERS & THE COORDINATE PLANE	<p>Students will be able to:</p> <ul style="list-style-type: none"> find areas of figures in a coordinate plane; find the midpoint of a line segment. 	<ul style="list-style-type: none"> Have students work in pairs to use a ruler to draw several quadrilaterals on grid paper. <ol style="list-style-type: none"> Find and connect the midpoints of the sides; Answer the question "Do you always get a parallelogram?" 	<ul style="list-style-type: none"> Textbook Practice Workbook Reteaching Copy Master Enrichment Copy Master 	<ul style="list-style-type: none"> Lesson Exercises Math Journal Math Log Mini Quiz Teacher Observation 	4.2 E.2
ALGEBRA: EQUATIONS & PROBABILITY	<ul style="list-style-type: none"> use concepts and skills related to integers, equations, and probability to gain a deeper understanding of games. 	<ul style="list-style-type: none"> Students can make a booklet from several pieces of paper. Think of a title and write it on the cover, along with your name. Use the library, Internet, or other resources to find more information about a particular game. Examples: <ul style="list-style-type: none"> The Hawaiian game of Lu-lu; The Korean game of Ko-no. 	<ul style="list-style-type: none"> Textbook Paper Pencils 	<ul style="list-style-type: none"> Project Teacher Observation Math Journal 	4.4 D.1
ALGEBRA: EQUATIONS & PROBABILITY	<ul style="list-style-type: none"> model addition equations and their solutions with algebra tiles. 	<ul style="list-style-type: none"> Students can make up their own algebraic equations. The students can work in groups of two or three. 	<ul style="list-style-type: none"> Textbook Algebra Tiles Pencils or Pens Paper 	<ul style="list-style-type: none"> Lab Exercises Lab Mini Quiz Teacher Observation 	4.3 C.1

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
ALGEBRA: EQUATIONS & PROBABILITY	Students will be able to: <ul style="list-style-type: none"> • solve addition equations; • use addition equations to solve real life problems. 	<ul style="list-style-type: none"> • Students should work in pairs to use a verbal model of the equation. <ol style="list-style-type: none"> 1) Write a verbal model for the problem; 2) Assign values to each label in the model. If you know the value, use a number. If you don't know the value, use a variable like "x." 3) Rewrite the verbal model as an equation and then solve. Example is on p. 581 text. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz 	4.3 C.1
ALGEBRA: EQUATIONS & PROBABILITY	<ul style="list-style-type: none"> • solve addition equations; • use addition equations to solve real life problems. 	<ul style="list-style-type: none"> • Students should work in pairs to use a verbal model of the equation. <ol style="list-style-type: none"> 1) Write a verbal model for the problem; 2) Assign values to each label in the model. If you know the value, use a number. If you don't know the value, use a variable like "x." 3) Rewrite the verbal model as an equation and then solve. Example is on p. 585 text. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz 	4.3 C.1

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
ALGEBRA: EQUATIONS & PROBABILITY	Students will be able to: <ul style="list-style-type: none"> • solve equations that have fractions and decimals; • use equations with fractions and decimals to solve real life problems. 	<ul style="list-style-type: none"> • Students can work in pairs to create a word problem with fractions and decimals. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Mini Quiz • Teacher Observation 	4.3 D.3
ALGEBRA: EQUATIONS & PROBABILITY	<ul style="list-style-type: none"> • evaluate a function; • write a rule for a function. 	<ul style="list-style-type: none"> • Students should work together to write an entry in their Math Journal. <ul style="list-style-type: none"> - Have students explain in their own words what a function is; - Ask them to provide examples of functions. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Mini Quiz • Teacher Observation 	4.3 B.1
ALGEBRA: EQUATIONS & PROBABILITY	<ul style="list-style-type: none"> • find a rule for counting the number of combinations possible in selecting an item from each of two sets. 	<ul style="list-style-type: none"> • Tell students they work at a restaurant that serves three types of tacos: bean, beef and chicken. Each can be ordered with a hard shell or soft shell. Create a table that shows the number of different tacos a person can order. 	<ul style="list-style-type: none"> • Textbook • Paper • Pens or Pencils 	<ul style="list-style-type: none"> • Lab Exercises • Math Journal • Lab Mini Quiz • Teacher Observation 	4.4 C.1,2,3

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
ALGEBRA: EQUATIONS & PROBABILITY	Students will be able to: <ul style="list-style-type: none"> • use a tree diagram; • use the counting principle. 	<ul style="list-style-type: none"> • Students can draw an imaginary fish tank. Fill the tank with fish. Students will use two counting techniques to account for all the fish: a tree diagram and the counting principle. The students will share the drawing with another group. The second group will use counting techniques to account for the fish and vice-versa. • Organize the students in pairs. Ask each pair to perform an experiment in which they flip a coin and then roll the number generator. Have them make a list of the possible outcomes using a tree diagram and estimate the probability of each outcome. After they try the experiment 50 times, direct them to compare the estimates with actual outcomes. • Write this statement on the board: "There are 5 red ___ and 3 blue ___. How many ways can one red ___ and one blue ___ be chosen? Ask the students to copy the statement and fill in the blanks with items of their choice. Direct them to use the counting principle to determine the number of possibilities. 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercise • Math Journal • Math Log • Mini Quiz • Teacher Observation 	4.4 B.2,4,5 C.1,2,3

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
ALGEBRA: EQUATIONS & PROBABILITY	Students will be able to: <ul style="list-style-type: none"> • find the probability of two independent events; • solve real life problems using probability. 	<ul style="list-style-type: none"> • A store manager has a surplus of 6 oz. cans of grape juice. To encourage people to buy them, he places small cans of juice in a barrel to sell at 3 for 50¢. One barrel has 50 cans of grape, 20 cans of orange, and 10 cans of pineapple juice. If you pick without looking, what the chances of getting a can of grape juice on the first pick? (Answer - 1 out of 2) 	<ul style="list-style-type: none"> • Textbook • Practice Workbook • Reteaching Copy Master • Enrichment Copy Master 	<ul style="list-style-type: none"> • Lesson Exercises • Math Journal • Math Log • Mini Quiz • Teacher Observation 	4.4 B.1,2
NUMBER SENSE	<ul style="list-style-type: none"> • find squares and cubes of whole numbers; • find area of a square. 	<ul style="list-style-type: none"> • Create a chart showing numbers with exponents of 2 or 3. Have students write what each power represents and then solve for the value of each. $4^2 - 4 \times 4 - 16$ $3^3 - 3 \times 3 \times 3 - 27$	<ul style="list-style-type: none"> • Teacher-made Chart • Calculators 	<ul style="list-style-type: none"> • Teacher Observation • Worksheet 	4.1 B.5 4.2 E.2

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
GEOMETRY & MEASUREMENT	<p>Students will be able to:</p> <ul style="list-style-type: none"> compare properties of cylinders, prisms, cones, pyramids, and spheres. 	<ul style="list-style-type: none"> Have students research properties of each figure. Create a booklet using one page per figure. Draw and label each figure and list the properties of each. 	<ul style="list-style-type: none"> Text Internet Pencils, Markers 	<ul style="list-style-type: none"> Booklet Teacher Observation 	4.2 A.5
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> identify, describe, and draw the faces of three-dimensional geometric objects. 	<ul style="list-style-type: none"> Have students work in groups of 4. Give each group a three-dimensional geometric figure. Have each group draw and label their object from all possible angles. Exchange objects until each group has done all figures. 	<ul style="list-style-type: none"> Three-Dimensional Geometric Figures (e.g. cylinders, pyramids, cones) Drawing Paper 	<ul style="list-style-type: none"> Teacher Observation Drawings 	4.2 A.6,7
GEOMETRY & MEASUREMENT	<ul style="list-style-type: none"> identify a three-dimensional shape given a flat pattern that folds into a 3-D shape. 	<ul style="list-style-type: none"> Give each student copies of three-dimensional patterns that will fold into 3-D shapes. Have students try to identify the figures first, then cut the figures out and fold them along the lines. Tape the sides together and determine whether or not their predictions were accurate. 	<ul style="list-style-type: none"> Copies of 3-D Figures Recording Sheet 	<ul style="list-style-type: none"> Teacher Observation Recording Sheets 	4.2 A.8

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SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
PATTERNS & ALGEBRA	Students will be able to: <ul style="list-style-type: none"> • draw graphs that model real-life phenomena and interpret events. 	<ul style="list-style-type: none"> • Give students a list of data containing the high temperatures for a particular city over a two-week period. Have students draw a line graph depicting the information and write a brief paragraph outlining the changes over time. 	<ul style="list-style-type: none"> • Weather Data • Graph Paper • Rulers 	<ul style="list-style-type: none"> • Teacher Observation • Graphs • Written Paragraphs 	4.3 C.2
PATTERNS & ALGEBRA	<ul style="list-style-type: none"> • solve linear equations. 	<ul style="list-style-type: none"> • Have students work in small groups to develop and solve problems using linear equations. <p>Ex: Solve the following problems when $x = 10$ and $y = 6$</p> $x - y + 4 =$	<ul style="list-style-type: none"> • Text • Worksheet • Transparency 	<ul style="list-style-type: none"> • Teacher Observation • Worksheet • Homework 	4.3 D.1
PATTERNS & ALGEBRA	<ul style="list-style-type: none"> • extend use of symbols and use of inequity 	<ul style="list-style-type: none"> • Give students problems with variables and have them find a set of numbers that would make the statement true. <p>Ex: $7 + y < 15$</p> $y = (0, 1, 2, 3, 4, 5, 6, 7)$	<ul style="list-style-type: none"> • Text • Worksheet • Transparency 	<ul style="list-style-type: none"> • Teacher Observation • Worksheet • Homework 	4.3 D.4

**TOWNSHIP OF FRANKLIN PUBLIC SCHOOLS
MATHEMATICS CURRICULUM
GRADE 6**

SKILL AREA	STUDENT OBJECTIVE	EXAMPLE/ACTIVITIES	RESOURCE/MATERIALS	ASSESSMENT	NJ CORE CURRICULUM STANDARD
DATA ANALYSIS, PROBABILITY, & DISCRETE MATHEMATICS	Students will be able to: <ul style="list-style-type: none"> analyze vertex-edge graphs and tree diagrams. 	<ul style="list-style-type: none"> Give students dot paper and have them connect dots in a continuous line to try to create a picture. Explain the relationship between each edge and vertex on the drawings. Use tree diagrams to represent connectedness between items. <p>Ex: factors</p> <pre style="text-align: center;"> 42 / \ 6 7 / \ / \ 2 x 3 x 7 x 1 </pre>	<ul style="list-style-type: none"> Text Worksheets Dot Paper Rulers 	<ul style="list-style-type: none"> Teacher Observation Worksheets Homework 	4.4 D.2
DATA ANALYSIS, PROBABILITY, & DISCRETE MATHEMATICS	<ul style="list-style-type: none"> use vertex-edge graphs to solve real-life problems. 	<ul style="list-style-type: none"> Have students work in pairs. Give each pair a street map of Washington, D.C., and an itinerary. Have students map out the best way to visit each site that involves the least amount of travel. 	<ul style="list-style-type: none"> Maps of Washington, D.C. Itinerary 	<ul style="list-style-type: none"> Teacher Observation Worksheets 	4.4 D.3