

MATH – Extended Grade Band Instructional Examples: 7-8

Model Academic Standard A: Mathematical Processes - Students will effectively use mathematical knowledge, skills and strategies related to reasoning, communication, connections, representation, and problem solving.

Model Academic Standard B: Number Operations and Relationships - Students will use numbers effectively for various purposes, such as counting, measuring, estimating, and problem solving.

Subskill: B.a. Concepts

NOTE: Model Academic Standard A: Mathematical Processes - mathematical processes are embedded in the performance of the content

EXTENDED GRADE BAND OBJECTIVE: Ba1			
Read, Write, Represent Whole Numbers to 100+			
Instructional Achievement Descriptors			
Advanced	Proficient	Basic	Minimal
<i>Read, write, represent, and order numbers to 100+</i>	<i>Read, write, and represent, whole numbers to 100+</i>	<i>Read, write, and represent, whole numbers to 20</i>	<i>Identify whole numbers to 10</i>
Provide student with a set of flash cards numbered 1-100+. Have student count the number of cards. Shuffle the cards and have student arrange the cards in the correct order. Shuffle the cards again and have student turn the cards over one at a time reading the numeral that is written on each card. Turn the cards over and have student write the numerals 1-100+ in order on the back of the cards.	Provide student with a set of flash cards numbered 1-100+. Have student count the number of cards in the set. Shuffle the cards and have student turn the cards over one at a time reading the numeral that is written on each card. Turn the cards over and have student write the numerals 1-100+ on the back of the cards.	Provide student with a set of flash cards numbered 1-20. Have student count the number of cards in the set. Shuffle the cards and have student turn the cards over one at a time reading the numeral that is written on each card. Turn the cards over and have student write the numerals 1-20 on the back of the cards.	Provide student with a set of flash cards numbered 1-10. Have student count the number of cards in the set. Shuffle the cards and have student turn the cards over one at a time reading the numeral that is written on each card.
Go on a number scavenger hunt. Have student count, record, and report the numbers of various objects in and around the school, e.g. number of cars in the parking lot, number of doors in the school, number of tiles on the classroom floor, number of windows, etc. Have student order the numbers from the least to the most.	Go on a number scavenger hunt. Have student count, record, and report the numbers of various objects in and around the school, e.g. number of cars in the parking lot, number of doors in the school, number of tiles on the classroom floor, number of windows, etc.	Go on a number scavenger hunt. Have student count, record, and report the numbers of various objects in and around the school (list objects for the student that are less than 20).	Go on a number scavenger hunt. Have student identify numbers from 1-10 found in and around the school, e.g. on classroom doors, on the clock, on the calendar, on license plates, etc.

<p>Provide student with a piece of graph paper containing 100+ large squares. Number each of the squares from 1-100+ randomly omitting a number or a group of numbers in the sequence. Have student complete the graph by filling in the missing numbers. Have student cut the graph into single squares, mix up the squares, and re-create the graph by arranging the squares in order.</p>	<p>Provide student with a piece of graph paper containing 100+ large squares. Number each of the squares from 1-100 randomly omitting a number or a group of numbers in the sequence. Have student complete the graph by filling in the missing numbers.</p>	<p>Provide student with a piece of graph paper containing 20 large squares. Number each of the squares from 1-20 randomly omitting a number or a group of numbers in the sequence. Have student complete the graph by filling in the missing numbers.</p>	<p>Provide student with a piece of graph paper containing 10 large squares. Number each of the squares from 1-10. Have student identify the number in each of the squares as requested in random order.</p>
<p>Provide student with a set of 100+ objects, e.g. pennies, chips, cheerios, etc. Have student count all the objects in the set. Present student with a flash card displaying a number from 1-100+. Have student count out the number of objects that corresponds to the number represented on the card. Have student identify the number that would come next in the sequence representing one more.</p>	<p>Provide student with a set of 100+ objects, e.g. pennies, chips, cheerios, etc. Have student count all the objects in the set. Present student with a flash card displaying a number from 1-100+. Have student count out the number of objects that corresponds to the number represented on the flash card.</p>	<p>Provide student with a set of 20 objects, e.g. pennies, chips, cheerios, etc. Have student count all the objects in the set. Present student with a flash card displaying a number from 1-20. Have student count out the number of objects that corresponds to the number represented on the flash card.</p>	<p>Provide student with a set of 10 objects, e.g. pennies, chips, cheerios, etc. Present student with a flash card displaying a number from 1-10. Have student identify the number on the card. Guide student in counting out the number of objects that correspond to the number identified on the flash card.</p>
<p>Provide student with a calendar for the year and a chart with statements, e.g. days until Christmas, days until the end of the school year, days until my birthday, etc. Using the calendar, have student count the days and complete the chart with the correct answer. Have student order the numbers on the completed chart from the lowest to the highest. Repeat at different times throughout the year.</p>	<p>Provide student with a calendar for the year and a chart with statements, e.g. days until Christmas, days until the end of the school year, days until birthday, etc. Using the calendar, have student count the days and complete the chart with the correct answer. Repeat at different times throughout the year.</p>	<p>Provide student with a calendar for the month chart with statements, e.g. number of Fridays in the month, number of school days in the month, number of days until the end of the month, number of days until a special day in the month, etc. Using the calendar, have student count the days and complete the chart with the correct answer. Repeat for each month.</p>	<p>Provide student with a calendar for the month. Have the student find and identify all the 1's, 2's, 3's, etc. on the calendar.</p>

Model Academic Standard B: Number Operations and Relationships
Subskill: B.a. Concepts

EXTENDED GRADE BAND OBJECTIVE: Ba2			
Use Basic Fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$			
Instructional Achievement Descriptors			
Advanced	Proficient	Basic	Minimal
<i>Identify and compare fractions</i> $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{6}$. 1/10	<i>Use basic fractions</i> $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$	<i>Identify basic fractions</i> $\frac{1}{2}$, $\frac{1}{4}$	<i>No Achievement Descriptors identified for this level</i>
Provide student with a number line numbered from 1-24. Using a calculator, demonstrate and practice how to find $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{8}$ of a number. Have student use a calculator to identify and mark which number on the number line represents $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{8}$. Have student identify which part has more numbers.	Provide student with a number line numbered from 1-12. Using a calculator, demonstrate and practice how to find $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{3}$ of a number. Have student use a calculator to identify and mark which number on the number line represents $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{3}$.	Provide student with a number line numbered from 1-12. Using a calculator, demonstrate and practice how to find $\frac{1}{2}$ and $\frac{1}{4}$ of a number. Have student use a calculator to identify and mark which number on the number line represents $\frac{1}{2}$ and $\frac{1}{4}$.	Provide student with a number line numbered from 1-12. Using a calculator, demonstrate and practice how to find $\frac{1}{2}$ of a number. Have student use a calculator to identify and mark which number on the number line represents $\frac{1}{2}$.
Provide student with a set of measuring cups and spoons, e.g. 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{8}$ and several recipes that call for using the different sized measuring cups and spoons. Have student identify the cup or spoon to use to follow the recipe accurately. Have student identify which measuring cup or spoon is more.	Provide student with a set of measuring cups and spoons, e.g. 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ and several recipes that call for using the different sized measuring cups and spoons. Have student identify the cup or spoon to use to follow the recipe accurately.	Provide student with a set of measuring cups and spoons, e.g. 1, $\frac{1}{2}$, $\frac{1}{4}$ and several recipes that call for using a 1, $\frac{1}{2}$, or $\frac{1}{4}$ sized measuring cup or spoon. Have student identify the cup or spoon to use to follow the recipe accurately.	Provide student with a set of measuring cups and spoons, e.g. 1 and $\frac{1}{2}$ only, and a recipe that calls for using either a 1 or $\frac{1}{2}$ sized measuring cup or spoon. Have student identify the cup or spoon to use to follow the recipe accurately.
Provide student with strips of paper of same length. Fold each piece into the various fractions of the whole, e.g. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{8}$, or $\frac{1}{10}$. Have student compare the physical sizes or length and find relationships.	Provide students with objects that can be folded into parts of $\frac{1}{2}$, $\frac{1}{4}$, or $\frac{1}{3}$, e.g. piece of paper, napkin, piece of string, ribbon, etc. Have student practice folding the objects into various fractional parts identifying the fractional part each time.	Provide students with objects that can be folded into parts of $\frac{1}{2}$ or $\frac{1}{4}$, e.g. piece of paper, napkin, piece of string, ribbon, etc. Have student practice folding the objects into various fractional parts identifying the fractional part each time.	Provide students with objects that can be folded in half, e.g. piece of paper, napkin, piece of string, ribbon, etc. Have student practice folding the objects in half.

<p>Provide student with a set of measuring cups 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{8}$. Demonstrate measuring liquid and dry ingredients highlighting how two $\frac{1}{2}$ cups = 1 cup, three $\frac{1}{3}$ cups = 1 cup and four $\frac{1}{4}$ cups = 1 cup and the reverse pouring the one cup into two, three, or four equal parts. Set up practice problems for student to test and demonstrate how many $\frac{1}{2}$ cups, etc. are needed to make a whole relating to the denominator and numerator of the fraction. Have student compare the number of times each fractional cup needed to be refilled to make a whole.</p>	<p>Provide student with a set of measuring cups 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$. Demonstrate measuring liquid and dry ingredients highlighting how two $\frac{1}{2}$ cups = 1 cup, three $\frac{1}{3}$ cups = 1 cup and four $\frac{1}{4}$ cups = 1 cup and the reverse pouring the one cup into two, three, or four equal parts. Set up practice problems for students to test and demonstrate how many $\frac{1}{2}$ cups, etc. are needed to make a whole relating to the denominator and numerator of the fraction.</p>	<p>Provide student with a set of measuring cups 1, $\frac{1}{2}$, and $\frac{1}{4}$. Demonstrate measuring liquid and dry ingredients highlighting how two $\frac{1}{2}$ cups = 1 cup and four $\frac{1}{4}$ cups = 1 cup and the reverse pouring the one cup into two or four equal parts. Set up practice problems for students to test and demonstrate how many $\frac{1}{2}$ cups, etc. are needed to make a whole relating to the denominator and numerator of the fraction.</p>	<p>Provide student with a set of measuring cups, e.g. 1 and $\frac{1}{2}$. Demonstrate measuring liquid and dry ingredients highlighting how two $\frac{1}{2}$ cups = 1 cup and the reverse pouring the one cup into two equal parts. Have student practice the demonstration.</p>
<p>Provide student with sets of objects that can be evenly divided into equal groups, e.g. two - $\frac{1}{2}$, three - $\frac{1}{3}$, four - $\frac{1}{4}$, eight - $\frac{1}{8}$, or ten - $\frac{1}{10}$ and a set of flash cards representing each of the fractional parts. Have student group the objects according to the fraction represented on the flash card that is displayed. Have student compare groupings according to number of objects per group.</p>	<p>Provide student with sets of objects that can be evenly divided into equal groups, e.g. two - $\frac{1}{2}$, three - $\frac{1}{3}$ or four - $\frac{1}{4}$ and a set of flash cards representing each of the fractional parts. Have student group the objects according to the fraction represented on the flash card that is displayed.</p>	<p>Provide student with sets of objects that can be evenly divided into equal groups, e.g. two - $\frac{1}{2}$ or four - $\frac{1}{4}$ and a set of flash cards representing each of the fractional parts. Have student group the objects according to the fraction represented on the flash card that is displayed.</p>	<p>Provide student with sets of objects that can be evenly divided into two equal groups. Have student group divide the sets into two equal groups.</p>

Model Academic Standard B: Number Operations and Relationships
Subskill: B.a. Concepts

<i>EXTENDED GRADE BAND OBJECTIVE: Ba3</i>			
Count and Compare Coins and Bills of Differing Value			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Count and compare coins and bills of differing values to make change</i>	<i>Count and compare coins and bills of differing values</i>	<i>Identify value of coins and bills</i>	<i>Compare coins and bills</i>
Provide student with three sets of money, each of which contains both dollar bills and coins. Have student determine the amount of money in each set, write the amounts on cards using dollar signs and decimals, and organize the cards from the least amount to the most. Have student determine the dollar amount for each card.	Provide student with three sets of money, each of which contains both dollar bills and coins. Have student determine the amount of money in each set, write the amounts on cards using dollar signs and decimals, and organize the cards from the least amount to the most.	Provide student with three sets of money, each of which contains both dollar bills and coins. Have student determine the amount of money in each set.	Provide student with three sets of like coins of varying amounts, e.g. one dime, two dimes, and four dimes. Have student determine which set is more. Repeat with sets of nickels, pennies, quarters, and one-dollar bills.
Create a set of cards that shows various numeric values for money represented in three ways each, e.g. one card with a picture of two dimes and a nickel, one card with the value written in cents (25¢), and one card showing the value in terms of dollars (\$.25). Provide student with three sets of cards (9 cards) in random order. Have student group the cards according to their value. Have student trade cards with another student and repeat the activity. Have student round each amount to the next dollar up amount and determine the change.	Create a set of cards that shows various numeric values for money represented in three ways each, e.g. one card with a picture of two dimes and a nickel, one card with the value written in cents (25¢), and one card showing the value in terms of dollars (\$.25). Provide student with three sets of cards (9 cards) in random order. Have student group the cards according to their value. Have student trade cards with another student and repeat the activity.	Create a set of cards depicting various groupings of coins, e.g. card with a picture of two dimes and a nickel, etc. and bills. Provide student with cards and actual coins. Have student match the coins to the coins on the card and determine the amount of money represented on each card. Repeat with cards representing one-dollar bills in groupings from one to five bills.	Create a set of cards depicting various groupings of coins e.g. card with a picture of two dimes and a nickel, etc. Provide student with cards and real coins. Have student match the coins to the coins on the card. Repeat with cards representing one-dollar bills in groupings from one to five bills.

Provide student with a card depicting the amount of change they are due from a purchase. Have student identify different coin combinations they might receive as change. Repeat activity for bills and coins.	Provide student with a card depicting a certain value amount and a set coins. Have student demonstrate different coin combinations that add up to the value represented on the card, e.g. \$.25 = two dimes and a nickel, a quarter, or five nickels, etc. Repeat activity for bill combinations.	Provide student with a card depicting a certain value amount and two sets of coins, one that adds up to the correct amount and one that does not. Have student determine which coin combination is correct.	Present student with a card depicting a set of coins. Using actual coins make two sets of coins, one that matches the set of coins on the card and one that does not. Have student identify the set of coins that matches the set of coins on the card.
Provide student with a menu from the school cafeteria listing items of food, the cost of the items, and a collection of coins and bills. Have student select an item to purchase and determine the change they would receive if they only had dollar bills to pay with.	Provide student with a menu from the school cafeteria listing items of food, the cost of the items, and a collection of coins and bills. Have student select an item to purchase and identify the correct combination of coins and bills needed to purchase the item.	Provide student with a menu from the school cafeteria listing items of food and the cost of the items. Have student identify which items he or she could purchase with a dollar and which items cost more than a dollar.	Provide student with a menu from the school cafeteria listing items of food and the cost of the items. Have student identify the items that cost less than a dollar.
Put a collection of different coins and bills in a large container. Have student draw out one bill and three coins from the container. Have student determine the total amount of money drawn from the container. Have student determine the coins needed to make the whole dollar amount.	Put a collection of different coins and bills in a large container. Have student draw out one bill and three coins from the container. Have student determine the total amount of money drawn from the container.	Put a collection of different coins and bills in a large container. Have student draw out one bill and three coins from the container. Have student identify each coin or bill drawn and determine the value of each coin or bill.	Put a collection of different coins and bills in a large container. Place a set of coins, e.g. penny, nickel, dime, quarter, a one-dollar bill, and a five-dollar bill on the table in front of the student. Have student draw out one bill and one coin from the container and match it to the corresponding coin and bill on the table.

Model Academic Standard B: Number Operations and Relationships
Subskill: B.b. Computation

<i>EXTENDED GRADE BAND OBJECTIVE: Bb1</i>			
Use Four Basic Operations in Everyday Situations			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Use four basic operations in everyday situations including two-step problems</i>	<i>Use four basic operations in everyday situations</i>	<i>Use single-digit addition and subtraction in everyday situations</i>	<i>Use addition to sums lower than 10 in everyday situations</i>
Present a scenario involving a class of twelve students. Student will plan a party for the class. The following items are or will be donated upon request: 24 cupcakes, how many will each student get? Each student wants 3 pieces of pizza, how many pieces of pizza will be needed? If three teachers attend, how many people will be at the party? Have student write the number sentence for each problem and then solve the problem. Double the class size.	Present a scenario involving a class of twelve students. Student will plan a party for the class. The following items are or will be donated upon request: 24 cupcakes, how many will each student get? Each student wants 3 pieces of pizza, how many pieces of pizza will be needed? If three teachers attend, how many people will be at the party? Have student write the number sentence for each problem and then solve the problem.	Provide student with a plate of twelve cookies. Take two cookies off the plate, have student determine how many cookies are left. Add one cookie, now how many cookies are on the plate? Continue the activity varying the number of cookies added or subtracted each time.	Provide student with a plate of two cookies. Add one cookie, then two more, then three more, and then another two, each time have student determine the new sum of cookies on the plate.
Provide student with cards labeled 1-12, a cube that has operation symbols on it, e.g. +, -, x, and ÷, and a calculator. Have student select two cards to determine the numbers to use in the problem and then roll the cube to determine the operation to use in the problem. Have student use the calculator to solve the problem and write out a number sentence to correspond to the problem. Have student use the same two numbers and complete the inverse operation, e.g. + and - or x and ÷. Compare the solutions and number sentences.	Provide student with cards labeled 1-12, a cube that has operation symbols on it, e.g. +, -, x, and ÷, and a calculator. Have student select two cards to determine the numbers to use in the problem and then roll the cube to determine the operation to use in the problem. Have student use the calculator to solve the problem and write out a number sentence to correspond to the problem.	Provide student with cards labeled 1-10, a cube that has operation symbols on it, e.g. + and -, and a calculator. Have student select two cards to determine the numbers to use in the problem and then roll the die to determine the operation to use in the problem. Have student use the calculator to solve the problem.	Provide student with cards labeled 1-5 and a calculator. Have student select two cards to determine the numbers to use in the addition problem. Have student use the calculator to solve the problem.

Provide student with newspaper ads for clothing and a budget of \$50.00. Have student identify possible clothing combinations and determine if it can be purchased with the given dollar amount.	Provide student with newspaper ads for clothing. Have student identify three items from the ad to purchase and determine the cost. Continue to select different groups of clothing and determine the price.	Provide student with newspaper ads for clothing. Have student identify two items of clothing to buy. Round the item cost to the nearest dollar and create a problem for student to solve. Have student add the whole dollar amount to determine cost of the two items. Create simple subtraction problems using the store ads.	Provide student with newspaper ads for items less than \$5.00. Have student identify two items to buy. Round the item cost to the nearest dollar and create a problem for student to solve. Have student add the whole dollar amount to determine cost of the two items.
Provide student with a cafeteria menu with prices and a budget of \$5.00. Have student determine two possible lunches using a calculator and addition and subtraction.	Provide student with a cafeteria menu with prices. Have student select a main entree, a beverage, and a dessert. Have student determine the total cost of the lunch using addition and a calculator. Have student calculate how much money is needed if the same lunch is ordered for five days in a row.	Create a menu consisting of 10 items total, e.g. three beverages, two dessert items, and five entrée items. Have student determine the solution to problems, e.g. if the cafeteria added two more beverages, how many beverages would be on the menu? If all the beverages were removed, how many items would be left on the menu?	Create a beverage menu consisting of two juice choices, four soda choices, three hot drinks, and water. Have student determine the sums of the various combinations on the menu.
Provide student with or have student bring in the season results for a football or basketball team. Have student determine the point differential for each game. Total points scored in each game. Total points scored by home team in the first three games compared to the opposing team. Average score for the team for the season.	Provide student with or have student bring in the season results for a football or basketball team. Have student determine the point differential for each game. Total points scored in each game. Total points scored by one team in the first three games. How many points if total was doubled, tripled, etc.?	Provide student with or have student bring in the season results for a baseball or hockey team. Have student determine the point differential for each game. Total points scored in each game.	Provide student with or have student bring in the season results for a baseball or hockey team. Have student determine the total points scored in each game.

Model Academic Standard B: Number Operations and Relationships
Subskill: B.b. Computation

<i>EXTENDED GRADE BAND OBJECTIVE: Bb2</i>			
Estimate without counting Group Sizes Based on More or Less			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Estimate (without counting) more than two group sizes based on most and least</i>	<i>Estimate (without counting) group sizes based on more or less</i>	<i>No Achievement Descriptors identified for this level</i>	<i>No Achievement Descriptors identified for this level</i>
Provide student with three jars that are the same size filled with different quantities of coin. Have student estimate the amount of money in each jar. Have student determine which jar has the most and least money.	Provide student with two jars that are the same size filled with different quantities of coin. Have student estimate the amount of money in each jar. Have student determine which jar has more money or less money.	Provide student with two jars that are the same size filled with very different quantities of coins, e.g. one almost empty and one almost full. Have the student identify which jar has more money.	Provide student with two jars that are the same size. One full of coins and one empty. Have student identify which jar has money in it.
Show student pictures of the crowd from three sporting events. One picture depicting a full crowd, one picture with about half the seats empty, and one with about $\frac{3}{4}$ of the seats empty. Have student estimate the number of people in each crowd. Have student determine which event had the most people attending or the least people in attendance.	Show student pictures of the crowd from two sporting events. One picture depicting a full crowd and one picture with about half the seats empty. Estimate the number of people in each crowd. Have student determine which event had more or less people attending.	Show student pictures of the crowd from two sporting events. One picture depicting a full crowd and one picture with about $\frac{3}{4}$ of the seats empty. Have student identify which event had more people attending.	Show student pictures of the crowd from two sporting events. One picture depicting a full crowd and one picture with empty seats. Have student identify which event had people attending.
Provide student the results of a yes, no, and sometimes survey by displaying Post-it Notes on the board. Have student estimate the number of votes for each response. Have student determine the results of the survey using most and least.	Provide student the results of a yes and no survey by displaying Post-it Notes on the board. Have results at about a 2-1 margin. Have student estimate the number of votes on each side. Have student determine the results of the survey using the words more and less.	Provide student the results of a yes and no survey by displaying Post-it Notes on the board. Have results at about a 4-1 margin. Have student identify which side has more Post-it notes.	Provide student the results of a yes and no survey by displaying Post-it Notes on the board. Display all the votes on the yes side. Have student determine which answer got votes.

Provide student with three stacks of books of different heights. Have student estimate the number of books in each stack. Have student identify which stack has the most or least books.	Provide student with two stacks of books of different heights. Have student estimate the number of books in each stack. Have student determine which stack has more or less books.	Provide student with two stacks of books of very different heights. Have student determine which stack has more books.	Provide student with two stacks of books, e.g. one stack of five and one stack of one book. Have student determine which stack has more books.
Provide students with three jars that are the same size filled with different quantities of jellybeans. Have the student estimate the number of jellybeans in each jar. Have student determine which jar has the most or the least jellybeans.	Provide students with two jars that are the same size filled with different quantities of jellybeans. Have the student estimate the number of jellybeans in each jar. Have student determine which jar has more or less jellybeans.	Provide students with two jars that are the same size filled with different quantities of jellybeans, e.g. one almost full and one almost empty. Have the student determine which jar has more jellybeans.	Provide students with two jars that are the same size filled with different quantities of jellybeans, e.g. one full and one empty. Have the student identify which jar has jellybeans in it.

Model Academic Standard C: Geometry - Students will be able to use geometric concept and procedures to interpret, represent, and solve problems.

Subskills: C.a. Describing Figures

C.b. Spatial Relationships and Transformation

<i>EXTENDED GRADE BAND OBJECTIVE: Ca1</i>			
Sort and Classify a Variety of Three-Dimensional Objects Based on Shape			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Sort and classify a variety of three-dimensional objects based on shape; tell why the objects belong together</i>	<i>Sort and classify a variety of three-dimensional objects based on shape</i>	<i>Sort and classify two types of three-dimensional objects</i>	<i>Identify a three-dimensional object</i>
Have student sort three-dimensional objects by whether or not it has sides. Three-dimensional objects that have sides, e.g. cube, pyramid, box, and three-dimensional objects that have no sides, e.g. sphere or ball, bean bag. Justify why the objects belong together.	Have student sort three-dimensional objects by whether or not the object has sides. Three-dimensional objects that have sides, e.g. cube, pyramid, box, and three-dimensional objects that have no sides, e.g. sphere or ball, bean bag.	Provide student with a ball and a box. Have student identify the three-dimensional object that has sides.	Provide student with a ball and a box. Have student identify the three-dimensional object that is round.
Provide student with variety of sports equipment, e.g. tennis balls, cones, basket balls, baseball bases, badminton shuttles, bowling pins, etc. Have student sort the objects according to their attributes, using three-dimensional models as a reference. Have student justify the groupings.	Provide student with variety of sports equipment, e.g. tennis balls, cones, basket balls, baseball bases, badminton shuttles, bowling pins, etc. Have student sort the objects according to their attributes, using three-dimensional models as a reference.	Provide student with two types of sports equipment, e.g. tennis balls, cones, basket balls, baseball bases, badminton shuttles, bowling pins, etc. Have student sort the objects according to their attributes, using three-dimensional models as a reference.	Provide student with variety of sports equipment, e.g. tennis balls, cones, basket balls, baseball bases, badminton shuttles, bowling pins, etc. and pictures of the objects. Have student match the picture to the three-dimensional object.
Provide student with an assortment of real-life three-dimensional objects, e.g. a tissue box, an oatmeal box, a flashlight, and a party hat. Have student sort them according to their attributes, using three-dimensional models as a reference. Have student justify the groupings.	Provide student with an assortment of real-life three-dimensional objects, e.g. a tissue box, an oatmeal box, a flashlight, and a party hat. Have student sort them according to their attributes, using three-dimensional models as a reference.	Provide student with two examples of real-life three-dimensional objects, e.g. a tissue box, an oatmeal box, a flashlight, or a party hat. Have student sort them according to their attributes, using three-dimensional models as a reference.	Provide student with an example of a real-life three-dimensional object and a corresponding two-dimensional shape. Have student identify which object is three-dimensional.

<p>Play a game of <i>I Spy</i>. Have one student describe a three-dimensional classroom object that has the shape of a cylinder, cone, cube, or rectangular prism, listing the attributes of the object, e.g. sides, color, location, etc. Have other students guess the name of the object and the shape of the object. Have student identify the attributes of the shape.</p>	<p>Play a game of <i>I Spy</i>. Have one student describe a three-dimensional classroom object that has the shape of a cylinder, cone, cube, or rectangular prism, listing the attributes of the object, e.g. sides, color, location, etc. Have other students guess the name of the object and the shape of the object.</p>	<p>Play a game of <i>I Spy</i>. Using a three-dimensional model as a reference, have student identify a three-dimensional classroom object that has the shape of a cylinder, cone, or cube.</p>	<p>Have students look at one picture and one object in the classroom and identify which is three-dimensional.</p>
<p>Provide student with a variety of three-dimensional models, three-dimensional real life objects, and the corresponding two-dimensional shape. Have student group the three-dimensional shapes with the two-dimensional shape and justify the grouping.</p>	<p>Provide students with a variety of three-dimensional models, three-dimensional real life objects, and the corresponding two-dimensional shape. Have student group the three-dimensional shapes with the two-dimensional shape.</p>	<p>Provide students with two three-dimensional models, two corresponding two-dimensional real life objects, and the two-dimensional like shapes. Have student group the three-dimensional objects with the like two-dimensional shapes.</p>	<p>Provide student with a three-dimensional object and a two-dimensional object. Have student identify which object is the three dimensional object.</p>

Model Academic Standard C: Geometry
Subskills: C.a. Describing Figures
C.b. Spatial Relationships and Transformations

EXTENDED GRADE BAND OBJECTIVE: Ca2			
Identify Lines That are Parallel and Intersecting			
Instructional Achievement Descriptors			
Advanced	Proficient	Basic	Minimal
<i>Identify lines that are parallel and intersecting in objects</i>	<i>Identify lines that are parallel and intersecting</i>	<i>Identify lines that do not cross</i>	<i>No Achievement Descriptors identified for this level</i>
Provide student with two wooden sticks, e.g. drum sticks, shish ka bob sticks, rulers, etc. Using the sticks, have students take turns demonstrating either parallel (lines that do not cross) or intersecting (lines that cross) lines. The rest of the class will identify the type of lines being demonstrated and find an example of the lines in the classroom.	Provide student with two wooden sticks, e.g. drum sticks, shish ka bob sticks, rulers, etc. Using the sticks, have students take turns demonstrating either parallel or intersecting lines. The rest of the class will identify the type of lines being demonstrated.	Provide student with two wooden sticks, e.g. drum sticks, shish ka bob sticks, rulers, etc. Call out crossed or uncrossed and have student arrange the sticks according to the verbal cue.	Provide student with two wooden sticks, e.g. drum sticks, shish ka bob sticks, rulers, etc. Have student practice crossing and uncrossing the sticks. State cross or uncrossed for student to hear depending on how the student arranges the sticks.
Provide student with a map of the school. Have student identify parallel and intersecting hallways on the map and then any other intersecting or parallel lines, e.g. sides of the rooms, etc. Have student identify objects in the school that contain intersecting or parallel lines, e.g. desk tops, counters, etc.	Provide student with a map of the school. Have student identify parallel and intersecting hallways on the map and then any other intersecting or parallel lines, e.g. sides of the rooms, etc.	Provide student with a map of the school. Have student identify hallways that do not cross.	Provide student with a map of the school. Have student identify the hallways on the map.
Have students walk through the school and locate as many parallel and intersecting lines as they can in 15 minutes.	Provide students with cue cards representing parallel and intersecting lines. Have students walk through the school and locate as many parallel and intersecting lines as they can in 15 minutes.	Provide students with cue cards representing lines that do not cross. Using the cue cards, have students walk through the school and locate lines that do not cross.	Provide students with a cue card with a line on it. Have students walk through the school and locate and identify lines.

<p>Provide student with drawings or pictures of various sports fields, e.g. football field, basketball court, bowling alley, four square, soccer field, etc. Have student identify all the parallel and intersecting lines. Have student look at the equipment, e.g. balls, hockey sticks, nets, etc. used to play the game and identify the parallel and intersecting lines.</p>	<p>Provide student with drawings or pictures of various sports fields, e.g. football field, basketball court, bowling alley, four square, soccer field, etc. Have student identify all the parallel and intersecting lines.</p>	<p>Provide student with drawings or pictures of various sports fields, e.g. football field, basketball court, bowling alley, four square, soccer field, etc. Have student identify the lines that do not cross.</p>	<p>Provide student with drawings or pictures of various sports fields, e.g. football field, basketball court, bowling alley, four square, soccer field, etc. Have student identify the lines on the fields.</p>
<p>Provide student with a worksheet with several examples of parallel and intersecting lines. Have student identify which lines are parallel and which lines are intersecting. Using a ruler or computer draw program, have student draw an example of parallel and intersecting lines.</p>	<p>Provide student with a worksheet with several examples of parallel and intersecting lines. Have student identify which lines are parallel and which lines are intersecting.</p>	<p>Provide student with a worksheet with examples of parallel lines and intersecting lines. Have student identify which lines do not cross.</p>	<p>Provide student with a worksheet with examples of lines in various directions and circles or ovals. Have student identify the lines.</p>

**Model Academic Standard C: Geometry
Subskill C.c. Coordinate Systems**

<i>EXTENDED GRADE BAND OBJECTIVE: Cc1 Locate Coordinates in a Real-World Context</i>			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Identify and locate coordinates in a real-world context</i>	<i>Locate coordinate in a real-world context</i>	<i>Locate a picture on a coordinate grid</i>	<i>Locate an object on a number line</i>
Provide students with a map of the school overlaid with a grid. Label the x-axis with letters and the y-axis with numbers. Provide students with a set of cards labeled with either a coordinate point or the name of the location. Have students take turns drawing cards. Student will either find the place on the map located at the coordinates or name the coordinates of the location named on the card.	Provide students with a map of the school overlaid with a grid. Label the x-axis with letters and the y-axis with numbers. Provide students with a set of cards labeled with sets of coordinate points. Have students take turns drawing cards. Have student find the place on the map located at the coordinates listed on the card.	Provide students with a grid with pictures of key locations, e.g. cafeteria, gym, music room, etc. arranged at different points on the grid. Label the x-axis with letters and the y-axis with numbers. Have student locate the pictures on the grid. Guide students in identifying the coordinates for the location of the pictures.	Provide students with a map of the hallway in the school where their classroom is located. Label the rooms with room numbers. Provide students with a set of cards labeled with the corresponding room numbers. Have students take turns drawing cards. Have student identify the location of the room by matching the number on the cards to the room number on the map.
Create a very basic map in grid form that includes major streets and intersections from the school to student's home. Have student identify major streets and intersections on the map. Have student identify the address of home and school. Have student develop basic directions from school to home.	Create a very basic map in grid form that includes major streets and intersections from the school to student's home. Have student identify major streets and intersections on the map. Have student identify the address of home and school.	Create a very basic map in grid form that includes a picture of the school, address for the school, and a picture of the student's home with the address. Include the nearest major intersection. Have student locate his or her home and identify the address. Have student locate the school and identify the address of the school	Create a map of the street that the student lives on. Place student's house and street number along with several other houses on the street (do not need numbers). Have student identify their home and address.

Provide students with a large grid (7x7). Label the x-axis with letters and the y-axis with numbers. Also, provide student with two spinners one marked with numerals 1-7 and the other with letters A-F. Have student spin both spinners and identify the point on the grid indicated on the spinners. Have student reverse the coordinates and determine if it is the same location.	Provide students with a large grid (7x7). Label the x-axis with letters and the y-axis with numbers. Also, provide student with two spinners one marked with numerals 1-7 and the other with letters A-F. Have the student spin both spinners and identify the point on the grid indicated on the spinners.	Provide students with a large grid (7x7). Label the x-axis with letters and the y-axis with numbers. Place pictures of community sites, e.g. school, home, library grocery store, etc. on the grid. Also, provide student with a spinner marked with the same community sites. Have the student spin the spinner and find the picture on the grid as indicated on the spinner. Guide the student in identifying the coordinates for the picture.	Provide students with a line with several pictures of community sites located on the line. Place a number on each site. Also, provide student with a spinner marked with the same community sites. Have student spin the spinner and find the picture on the line as indicated on the spinner. Have student identify the number that goes with the picture.
Have the students play the game “ Battleship” using the coordinates that are part of the game. Have student develop a similar game using coordinates.	Have the students play the game “ Battleship” using the coordinates that are part of the game.	Have student play a game that involves moving around a board space-by-space. Have student identify specific pictures and squares on the board.	Have student play a game that involves moving around a board space-by-space.
Provide student with a map of a shopping mall. Have student use the key on the map to locate different stores in the mall. May need to break the map into smaller sections or create a more basic version of the map.	Provide student with a map of a shopping mall. Have student use the key on the map or provide student with the coordinates to locate different stores in the mall. May need to break the map into smaller sections or create a more basic version of the map.	Provide student with a simple map representing a shopping mall. Place pictures of familiar stores and eating places on the grid. Have student locate the various locations on the map.	Provide student with a simple map representing a one row of stores in a shopping mall. Place pictures of familiar stores and eating places on the map. Have student locate the various locations.

Model Academic Standard D: Measurement – Students will select and use appropriate tools (including technology) and techniques to measure things to a specified degree of accuracy. They will use measurements in problem solving situations.

Subskills: D.a. Measurable Attributes, D.b. Direct Measurement

<i>EXTENDED GRADE BAND OBJECTIVE: Da1</i>			
Select the Appropriate Unit of Measure to Determine the Length or Weight of Everyday Objects			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Select and use the appropriate unit of measure to determine the length, liquid capacity, or weight of everyday objects</i>	<i>Select the appropriate unit of measure to determine the length, or weight of everyday objects</i>	<i>Select the appropriate unit of measure to determine the weight of everyday objects</i>	<i>Determine whether an everyday object is heavier or lighter than other objects</i>
Provide student with a ruler, a yardstick, and a tape measure and three things of different sizes that can be measured for length, e.g. book, table, and the length of the room. Have student select the tool that is most appropriate for measuring each item, identify and measure the object, and the length using the appropriate unit of measure.	Provide student with a ruler, a yardstick, and a tape measure and three things of different sizes that can be measured for length, e.g. book, table, and the length of the room. Have student select the tool that is most appropriate for measuring each item and identify the inch markings and foot markings on each measuring tool.	Provide student with a bathroom scale. Have student weigh him or herself and identify how much he or she weighs. Read the number amount on the scale and have student identify if it is inches or pounds.	Provide student with a bathroom scale. Weigh the student and record the weight. Weigh another object that weighs much less and can be visibly determined to weigh less. Record the weight of the object. Have the student determine if he or she is heavier or lighter than the object.
Provide students with set of cards labeled with the different words, abbreviations, and symbols for units of measurement of length, e.g. inches, feet, and yards, weight, e.g. ounces or pounds, and volume, e.g. pints, quarts, gallon, and ounces. Mix the cards and have student draw one card at a time. Have student identify the word, abbreviation, or symbol and determine if the word or symbol is a unit of length, volume, or weight.	Provide students with set of cards labeled with the different words, abbreviations, and symbols for units of measurement of length, e.g. inches, feet, and yards and weight, e.g. ounces and pounds. Mix the cards and have student draw one card at a time. Have student identify the word, abbreviation, or symbol and determine if the word or symbol is a unit of length or weight.	Provide students with set of cards labeled with the different words, abbreviations, and symbols for units of measurement of weight, e.g. ounces or pounds and words that are not related to measurement. Mix the cards. Have student identify the words and symbols that are a unit of measurement for weight.	Have the students hold two different objects, e.g. book and paper clip. Have student identify which item weighs more.

<p>Discuss how items of clothing and food are often labeled in units of length, weight, or volume. Provide various items or pictures of common items that are sized or packaged based on length, volume, or weight, foods, e.g. produce, juices, milk, meat, etc.; clothing, e.g. pants, dress shirts, dresses, belts, jewelry, etc. Have student determine if the items are labeled in units of length, weight, or volume. Identify where the measurement is found on the item.</p>	<p>Discuss how items of clothing and food are often labeled with units of length or weight. Provide various items or pictures of common items that are sized or packaged based on length or weight (foods- produce, meat etc.; clothing- pants, sleeve length, dress length). Have student determine if the items are labeled in units of length or weight. Identify where the measurement is found on the item.</p>	<p>Discuss how food are often labeled using units of weight. Provide students with items of food that are sold by weight. Have student locate where the weight on each item is on the label.</p>	<p>Provide student with different items of food from the grocery store, e.g. bag of potatoes, pound of carrots, etc. Have the student determine which item weighs more.</p>
<p>Provide student with a list of heights, weights, and capacities that are not sorted by height, weight, and capacity (include the unit of measure after each measurement). Have student sort the list by weight, height, and capacity. Have student determine which height represents the tallest or shortest, which weight represents the lightest or heaviest, and which capacity represents the largest or smallest volume.</p>	<p>Provide student with a list of heights and weights that are not sorted by height and weight (include the unit of measure after each measurement). Have student sort the list by weight and height. Have student determine which height represents the tallest or shortest and which weight represents the lightest or heaviest.</p>	<p>Provide student with a variety of pictures of common items sold by weight and others that are sold by size. Have student identify items sold by weight.</p>	<p>Provide student with a list of weights using whole numbers from 1-10 pounds. Have student determine which item weighs the most.</p>
<p>Have student create a list of words that are used to describe length other than the official unit of measure words, e.g. tall, short, long, far, near, etc., weight e.g. heavy, light, large, small, big, little, etc. and volume, e.g. empty, full, overflowing, etc. Identify how and where the words are used in everyday situations.</p>	<p>Have student create a list of words that are used to describe length other than the official unit of measure words, e.g. tall, short, long, far, near, etc. and weight, e.g. heavy, light, large, small, big, little, etc. Identify items that fit with each word and how and where the words are used in everyday situations.</p>	<p>Have student create a list of words that are used to describe weight, e.g. heavy, light, large, small, big, little, etc. Identify items that fit with each word.</p>	<p>Have student create a list of words that are used to describe weight, e.g. heavy, light, large, small, big, little, etc.</p>

Model Academic Standard D: Measurement
Subskill D.c. Indirect measurement

<i>EXTENDED GRADE BAND OBJECTIVE: Dc1</i>			
Identify and Describe Perimeter/Circumference and Area on a Grid			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Identify, describe, and compute perimeter/circumference and area on a grid</i>	<i>Identify and describe perimeter/circumference and area on a grid</i>	<i>Identify perimeter</i>	<i>Recognize the outside of an object</i>
Provide student with grid paper that has several different sized rectangles drawn on it. Have student identify the perimeter and the area of each shape. Outline the perimeter in one color and fill in the area in another color. Have student count the number of squares in the perimeter of each shape. Have student identify the dimensions of each rectangle and compute the area.	Provide student with grid paper that has several different sized rectangles and circles drawn on it. Have student identify the perimeter of each shape. Outline the perimeter in one color and fill in the area in another color. Have student count the number of squares in the perimeter and area of each shape.	Provide student with grid paper that has several different sized rectangles drawn on it. Have student identify the perimeter of each shape and outline it.	Provide student with grid paper that has several different sized rectangles drawn on it. Have student identify the outside of each shape.
Provide student with sheet of grid paper. Have students go around the room and find simple round objects to trace on to the grid paper. Have student use one color to identify the circumference and a different color to fill in the circle area. Provide student with the dimensions of the circle needed to compute area.	Provide student with sheet of grid paper. Have students go around the room and find simple round objects to trace on to the grid paper. Have student use one color to identify the circumference and a different color to fill in the circle area. Have student identify and describe each shape in terms of size, e.g. biggest circumference, area, etc.	Provide student with sheet of grid paper. Have the students go around the room and find simple square objects to trace on to the grid paper. Have the student identify the perimeter of the object and trace around it.	Have the students go around the room and identify the outside of the object.

<p>Provide students with a piece of grid paper with a large rectangle drawn on it to represent a room. Instruct students to create a tile border around the perimeter of the room. Provide student with the dimensions of the room and have student compute the area and perimeter of the room.</p>	<p>Provide students with a piece of grid paper with a large rectangle drawn on it to represent a room. Instruct students to create a tile border around the perimeter of the room. Have student identify the number of tiles in the perimeter and the number of tiles in the area of the room (one square in the grid is equal to one tile).</p>	<p>Provide students with a piece of grid paper with a large rectangle drawn on it to represent a room. Instruct students to create a tile border around the perimeter of the room.</p>	<p>Provide students with a piece of grid paper with a large rectangle drawn on it to represent a room. Have the student identify the outside of the room.</p>
<p>Provide students with several pieces of grid paper and several square and round baking pans. Have students trace around each pan on the paper. Have student describe the perimeter and area of each pan in terms of grid squares. Have student look for measurements on the pan and compare. Have student compute the area and perimeter of each baking pan.</p>	<p>Provide students with several pieces of grid paper and several square and round baking pans. Have students trace around each pan on the paper. Have student describe the perimeter and area of each pan in terms of grid squares. Have student look for measurements on the pan and compare.</p>	<p>Provide students with several pieces of grid paper and several square baking pans. Have students trace around each pan on the paper. Have student identify the perimeter of the actual pans and the perimeter of the tracings on the grid.</p>	<p>Provide students with several baking pans. Have student identify the outside of each of the pans.</p>
<p>Provide student with pictures of several regular shaped objects. Have student identify the perimeter of each object and arrange the objects according to size. Provide dimensions for two of the objects and have students compute the area and determine which object takes up the most space.</p>	<p>Provide student with pictures of several regular shaped objects. Have student identify the perimeter of each object describe the objects according to size. Identify the space that represents the area of each object and determine which object is the biggest.</p>	<p>Provide student with pictures of several regular shaped objects. Have student identify the perimeter of each object.</p>	<p>Provide student with pictures of several regular shaped objects. Have student identify the outside of each object.</p>

Model Academic Standard E: Statistics and Probability – Students will use data collection and analysis, statistics and probability in problem-solving situations, employing technology where appropriate.

Subskills: E.a. Data Analysis and Statistics

<i>EXTENDED GRADE BAND OBJECTIVE: Ea1</i>			
Interpret Data from Tables and Simple Graphs, e.g. pie, bar			
<i>Instructional Achievement Descriptors 11</i>			
Advanced	Proficient	Basic	Minimal
<i>Create and interpret data from tables and simple graphs</i>	<i>Interpret data from tables and simple graphs, e., pie, bar</i>	<i>Locate specific information on simple graphs</i>	<i>Identify a graph in a given resource</i>
Have student select a topic of interest, e.g. pets, music, cars, etc. and create three or four questions with possible answers to form the basis of a survey, e.g., “What is your favorite type of music, e.g. rap, jazz, country?” Have student survey 10 people and record their data. Have student develop a simple graph using the data from the survey. Have student interpret the data from the graph, e.g. how many people in the survey, most frequent answer, how many students chose each of the answers, etc.	Have student select a topic of interest, e.g. pets, music, cars, etc. and create three or four questions with possible answers to form the basis of a survey, e.g., “What is your favorite type of music, e.g. rap, jazz, country?” Have student survey 10 people and record their data. Guide student to develop a simple graph using the data from the survey. Have student interpret the data from the graph, e.g. how many people in the survey, most frequent answer, how many students chose each of the answers, etc.	Provide the student a graph that was created from a class survey. Have student identify specific information on the graph.	Have student look at a class or school publication that contains a graph. Have student identify the graph.
Provide student with data about the percentage of time the typical middle school student spends sleeping, in school, playing video games, watching TV, or doing other familiar activities. Have student create a pie chart from the data using the computer. Have student answer specific questions about information displayed on the chart.	Provide student with a pie chart depicting the percentage of time the typical middle school student spends sleeping, in school, playing video games, watching TV, or doing other familiar activities. Have student answer specific questions about information displayed on the chart.	Provide student with a pie chart depicting the percentage of time the typical middle school student spends sleeping, in school, playing video games, watching TV, or doing other familiar activities. Using the pie chart, have student identify specific information, e.g. which piece is the biggest or smallest.	Provide student with a set of data about the percentage of time the typical middle school student spends sleeping, in school, playing video games, watching TV, or doing other familiar activities and a pie chart representing the same data. Have student identify the pie chart.

Provide student with a table or graph from a local newspaper or textbook. Have student answer specific questions about information displayed on the chart. Have student identify another kind of graph that could be used to display the information.	Provide student with a table or graph from a local newspaper or textbook. Have student answer specific questions about information displayed on the chart.	Provide student with a table or graph from a local newspaper or textbook. Have student identify the parts of the graph, e.g. bars, tables, pie chart sections, title, etc.	Have student identify a graph or chart in a textbook or newspaper.
Provide student with a list of days and times for school related events, e.g. classes, therapy, community, school job, etc. Have student create a personal schedule in chart form.	Provide student with a lunch menu in chart form for the month from the school cafeteria. Have student answer specific questions about information displayed on the chart, e.g. what is being served on certain days, how many days in the month, how many days a certain food is served, etc.	Provide student with a lunch menu in chart form for the month from the school cafeteria. Have student identify information on the chart, e.g. where the days of the week are found and specific food information found on the chart.	Have student identify calendars, schedules, and other charts or tables found in the classroom
Provide student with a table of the weather data for the month, e.g. high, low, and average temperature, rain or snow amounts, sunrise or sunset, etc. Have student answer specific questions about information displayed in the table. Have student create a table to use for the next month's weather data.	Provide student with a table of the weather data for the month, e.g. high, low, and average temperature, rain or snow amounts, sunrise or sunset, etc. Have student answer specific questions about information displayed in the table.	Provide student with a simple table of weather data for the week, e.g. high or low temperature, rain or snow amounts, sunrise or sunset, etc. Have student identify the temperature data, the precipitation data, and the sunrise or sunset data.	Provide student with a simple table of weather data for the week, e.g. high or low temperature, rain or snow amounts, sunrise or sunset, etc. Have student identify the columns in the table.

Model Academic Standard E: Statistics and Probability
Subskill E.b. Probability

<i>EXTENDED GRADE BAND OBJECTIVE: Eb1</i>			
Determine Whether an Event is Impossible or Certain			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Determine whether an event is impossible or certain or likely</i>	<i>Determine whether an event is impossible or certain</i>	<i>Determine whether an event is impossible</i>	<i>Identify what is certain</i>
Have students observe as a group of 10 pennies are put into a coin purse. Provide student with a set of basic coins, e.g. penny, nickel, dime, and quarter. Have student identify the coins that are impossible to be in the coin purse and the coin that is certain to be in the coin purse. Repeat activity putting seven pennies and three dimes in the purse. Have student identify which coin is likely to be drawn out of the purse on the first try.	Have students observe as a group of 10 pennies are put into a coin purse. Provide student with a set of basic coins, e.g. penny, nickel, dime, and quarter. Have student identify the coins that are impossible to be in the coin purse and the coin that is certain to be in the coin purse.	Have students observe as a group of 10 pennies are put into a coin purse. Provide student with a set of two coins, e.g. a penny and a nickel. Have student identify which coin cannot be in the purse.	Have students observe as a group of 10 pennies are put into a coin purse. Provide student with a set of two coins, e.g. a penny and a nickel. Have student identify the coin that is in the purse.
Provide the student with a simple lunch menu and no breakfast items from a restaurant. Name various foods some that are listed on the menu and some not listed on the menu. Have student determine if it is possible or impossible to order the item from the menu. Have student identify restaurants that are likely to serve breakfast foods.	Provide the student with a simple lunch menu and no breakfast items from a restaurant. Name various foods some that are listed on the menu and some not listed on the menu. Have student determine if it is possible or impossible to order the item from the menu. Have student identify the items that are certain to be available.	Provide the student with a simple lunch menu and no breakfast items from a restaurant. Name various foods some that are listed on the menu and some not listed on the menu. Have student determine if the item is on the menu.	Provide the student with a simple lunch menu and no breakfast items from a restaurant. Have student identify items on the menu.

<p>Provide student with a box of all red markers. Have student determine if it is possible to draw a black marker from the box. Have student identify the color that is certain to be drawn from the box. Take two red markers out of the box and replace with two black markers, have student identify which color is likely to be drawn out of the box on the first try.</p>	<p>Provide student with a box of all red markers. Have student respond with possible or impossible when asked if a blue, red, green, black, or yellow marker can be drawn out of the box. Have student identify the color that is certain to be drawn from the box.</p>	<p>Provide student with a box of all red markers. Provide student with a set of three markers, e.g. red, blue, and green. Have student identify which markers it is impossible to draw out of the box.</p>	<p>Provide student with a box of all red markers. Have student identify the color of marker that will be drawn out of the box.</p>
<p>Provide student with a spinner that has only fours on it. Have student respond with possible or impossible when asked if the spinner could point to a one, two, three, four, or five. Have student identify the number that is certain for the spinner to land on. Change one of the sections on the spinner to a three. Have student identify which number the spinner will likely point to on the first spin.</p>	<p>Provide student with a spinner that has only fours on it. Have student respond with possible or impossible when asked if the spinner could point to a one, two, three, four, or five. Have student identify the number that is certain for the spinner to land on.</p>	<p>Provide student with a spinner that has only fours on it. Provide student with a set of three number cards labeled with a two, three, and four. Have student identify which numbers the pointer cannot point to when it is spun and therefore impossible.</p>	<p>Provide student with a spinner that has only fours on it. Provide student with a set of two number cards labeled with a three and a four. Have student identify the number the pointer will point to when it is spun.</p>
<p>Provide student with a bag of Snickers candy bars. Tell student he or she can take one candy bar out of the bag. Have student identify if it is possible or impossible for them to get a Baby Ruth, a Butterfinger, a Snickers, or a Mars candy bar from the bag. Have student identify which type of candy bar it is certain they will get. Open the bag and place three Mars bars in the bag. Have student identify which candy bar they are likely to get.</p>	<p>Provide student with a bag of Snickers candy bars. Tell student he or she can take one candy bar out of the bag. Have student identify if it is possible or impossible for them to get a Baby Ruth, a Butterfinger, a Snickers, or a Mars candy bar from the bag. Have student identify which type of candy bar it is certain they will get as a treat from the bag</p>	<p>Provide student with a bag of Snickers candy bars. Tell student to take one candy bar out of the bag. Set a Snickers and a Butterfinger on the table. Have student identify which candy bar is not in the bag and therefore impossible to get as a treat from the bag</p>	<p>Provide student with a bag of Snickers candy bars. Tell student he or she can take one candy bar out of the bag. Set a Snickers and a Butterfinger on the table. Have student identify the type of candy bar that is in the bag and therefore certain to get as a treat from the bag.</p>

Model Academic Standard F: Algebraic Relationships – Students will discover, describe, and generalize simple and complex patterns and relationships. In the context of real world problem situations, the student will use algebraic techniques to define and describe the problem to determine and justify appropriate solutions.

Subskills: F.a. Patterns, Relationships, and Functions, F.b. Expressions, Equations, and Inequalities

EXTENDED GRADE BAND OBJECTIVE: Fa1																											
Extend A Given Sequence																											
Instructional Achievement Descriptors																											
Advanced	Proficient	Basic	Minimal																								
Complete a given sequence of numbers	Extend a given sequence	Repeat a two-item pattern	Identify the next item in a pattern																								
<p>Provide students with the following chart:</p> <table border="1"> <thead> <tr> <th>No. of trips</th> <th>Bus Fare</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>\$2.00</td> </tr> <tr> <td>2</td> <td>?</td> </tr> <tr> <td>3</td> <td>?</td> </tr> <tr> <td>4</td> <td>?</td> </tr> <tr> <td>5</td> <td>?</td> </tr> </tbody> </table> <p>Have student complete the table.</p>	No. of trips	Bus Fare	1	\$2.00	2	?	3	?	4	?	5	?	<p>Provide students with the following chart:</p> <table border="1"> <thead> <tr> <th>No. of trips</th> <th>Bus Fare</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>\$2.00</td> </tr> <tr> <td>2</td> <td>\$4.00</td> </tr> <tr> <td>3</td> <td>?</td> </tr> <tr> <td>4</td> <td>?</td> </tr> <tr> <td>5</td> <td>?</td> </tr> </tbody> </table> <p>Have student complete the table.</p>	No. of trips	Bus Fare	1	\$2.00	2	\$4.00	3	?	4	?	5	?	<p>Provide student with the following sequence: 2, 4, 2, 4, 2, 4, __, __. Have the student complete the pattern by filling in the blanks.</p>	<p>Provide student with the following sequence: 2, 4, 2, 4, 2, 4, 2, __. Have the student complete the pattern.</p>
No. of trips	Bus Fare																										
1	\$2.00																										
2	?																										
3	?																										
4	?																										
5	?																										
No. of trips	Bus Fare																										
1	\$2.00																										
2	\$4.00																										
3	?																										
4	?																										
5	?																										
<p>Provide students with a menu with the following sequence for beverages for six days: white milk, chocolate milk, juice, white milk, chocolate milk, juice. Have student extend the sequence and determine beverages served days 7 - 12.</p>	<p>Provide students with a menu with the following sequence for beverages: white milk, chocolate milk, juice; white milk, chocolate milk, juice. Have student identify the order of beverages for the next three days by extending the given sequence.</p>	<p>Provide students with the following pattern for beverages served in the cafeteria: white milk, chocolate milk; white milk, chocolate milk ____, ____. Have student repeat the pattern by filling in the blanks.</p>	<p>Provide students with the following sequence white milk, chocolate milk; white milk, chocolate milk; white milk, ____. Have student identify the kind of milk that comes next in the pattern.</p>																								
<p>Provide student with the following row of numbers: 5, 10, 15. Have student complete the sequence to 100.</p>	<p>Provide student with a stack of twenty nickels. Count the first five nickels for or with the student. Have student continue to count the rest of the nickels up to a dollar.</p>	<p>Arrange a group of coins in the following sequence; nickel, dime, nickel, dime, nickel, dime, ____, ____. Have student repeat the pattern by identifying the next two coins in the pattern.</p>	<p>Arrange a group of coins in the following sequence; nickel, dime, nickel, dime, nickel, dime, nickel, ____, ____. Have student identify the coin that comes next in the pattern.</p>																								

Provide student with a partially completed time schedule for a bus that runs every half-hour. Have the student complete the chart in a half hour sequences.	Have students set a table for six people following the sequence that is established for the first two place settings, e.g. fork, knife, spoon, fork, knife, spoon.	Arrange two pieces of silverware in a alternating pattern, e.g. fork, spoon, fork, spoon, fork, spoon. Have the student repeat the pattern.	Arrange two pieces of silverware in a alternating pattern, e.g. fork, spoon, fork, spoon, fork, spoon, fork, _____. Have student determine which utensil comes next in the pattern.
Provide student with a variety of numbers to form a border on a poster. Have the students select three or more numbers they want to use for the border. Have student arrange the numbers in a sequence and repeat the sequence to create a number border around the poster.	Provide student with a variety of shapes to form a border on a poster. Have the student select three shapes they want to use for the border. Use the shapes to create a sequence. Have student extend the sequence to complete the border on the poster.	Have the student select two shapes from a collection of different shape. Use the two shapes to begin a two-item pattern. Complete the pattern through three repetitions. Have student repeat the pattern in a row across a piece of paper.	Have the student select two shapes from a collection of different shape. Use the two shapes to begin a two-item pattern. Complete the pattern through three and one-half repetitions. Have student identify the next shape in the pattern.

Model Academic Standard F: Algebraic Relationships
Subskill: Fb. Expressions, Equations, and Inequalities

<i>EXTENDED GRADE BAND OBJECTIVE: Fb1</i>			
Solve a Simple One-Step, Open-Equality Sentence			
<i>Instructional Achievement Descriptors</i>			
Advanced	Proficient	Basic	Minimal
<i>Solve a simple one-step, open sentence inequality problem</i>	<i>Solve a simple one-step, open equality sentence</i>	<i>Recognize equal quantities</i>	<i>Given a number, show the addition of one more</i>
Provide student with a set of cards labeled 1-10. Have student shoot the number of baskets represented on the card. Have student tally the number of baskets made. Have student use the total shots and shots made to solve an inequality problem. Have students determine if the number of shots made is =, >, or < than 5.	Provide student with a set of cards labeled 1-10. Have student shoot the number of baskets represented on the card. Have student tally the number of baskets made. Have student use the total shots and shots made to solve for number of shots missed, e.g. $10 - \square = 5$, or $5 + \square = 10$. Guide student in writing the corresponding number sentence.	Provide students with the tally marks for shots made by two different students in the class. Have student count the total tally marks for each student and determine if the number of tally marks are equal.	Have student make tally marks on a piece of paper starting with one mark and adding one tally mark each time a basket is made to 10 marks.
Provide student with a model of a clock with adjustable hands. Provide student with the running time of various events in minutes. Have student determine if the running time is =, >, or < than one hour.	Provide student with a model of a clock with adjustable hands. Have student solve problems involving time, e.g. A movie starts at 7:00 p.m. It lasts for one hour and 30 minutes. What time did the movie end?	Provide student with a model of a clock with adjustable hands. Move the hands around the clock in various increments some equal minutes, e.g. 15 min and 15 min and some that are not equal minutes, e.g. 15 min and 30 min. Have student determine if the minutes moved are equal. Limit to 15, 30, 45, and 60 minute increments.	Provide student with a model of a clock with adjustable hands. Have student move the hands of the clock around the clock one minute at a time.
Provide student with a set of flashcards that have simple one-step open inequality sentences on them. Have student solve the equations using a number line.	Provide student with a set of flashcards that have simple one-step open equality sentences on them, e.g. $5 - \square = 3$, $7 + \square = 10$. Have student solve the equations using a number line.	Provide student with two sets of cards numbered 1-10, e.g. either numerals or sets of dots. Have student draw a card from each set and determine if the amounts or numerals represented on the two cards are equal.	Provide the student with a set of cards numbered 1-10. Have student draw a card. Have student identify the number and the number that represents one more than the number represented on the drawn card.

<p>Provide student with a list of items for purchase and a coupon for each item of varying amounts. Have student determine if the amount of the item minus the coupon is =, >, or < \$1.00.</p>	<p>Provide student with a list of items for purchase and a coupon for each item of varying amounts. Have student determine the new price of the item using the coupon e.g. original price of item - coupon = □. Provide student with original price and sale price and have student determine the amount of the coupon used, e.g. original price - □ = sale price).</p>	<p>Provide student with a variety of coupons of varying amounts, e.g. some that are equal and some that are not equal. Have student identify coupons that represent equal discount amounts.</p>	<p>Provide student with word cards or picture cards of ten items to purchase at the store and a piece of paper. Have student create a shopping list by putting one picture or word card at a time on the paper until all the picture or word cards are on the paper in list form.</p>
<p>Provide student with a ruler, twelve 1-inch cubes, and a set of cards numbered 1-12. Have student place the cubes along the ruler to determine the number of cubes needed to equal the length of one ruler. Have student express that 12 cubes are “equal to” or “the same as” the length of the ruler. Have the student draw two cards from the pile, add the numbers together and determine if the number is =, >, or < 12, e.g. 6 + 7 is =, >, or < 12.</p>	<p>Provide student with a ruler and twelve 1-inch cubes. Have student place the cubes along the ruler to determine the number of cubes needed to equal the length of one ruler. Have student express that 12 cubes are “equal to” or “the same as” the length of the ruler. Provide student with a set of flash cards labeled with open equality problems to solve based on 12, e.g. $12 - \square = 8$, $6 + \square = 12$. Using the ruler and the 1-inch cubes, have student solve the problem.</p>	<p>Provide student with a ruler and twelve 1-inch cubes. Have student place the cubes along the ruler to determine the number of cubes needed to equal the length of one ruler.</p>	<p>Provide student with twelve 1-inch cubes. Group the cubes on one side of the table. Have the student move the cubes to the other side of the table one by one until all twelve cubes are grouped on the other side of the table.</p>