MATH – Extended Grade Band Instructional Examples: 5-6

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

EXTENDED GRADE BAND OBJECTIVE: Ba1

Recognize, Count, and Order Numbers to 50

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Recognize, count, and order numbers beyond 50	***Recognize, count, and order numbers to 50***	***Recognize, represent, count, and order numbers to 10***	***Rote count or identify numbers 0-3***
Provide class with a large Bingo card that contains the numbers 1-50 in random order. Make another set of 50 cards with each card containing a different number of dots 1- 50. Shuffle the cards so that they are in random order. Have student select a card, count the number of dots on it, and locate the number on the Bingo card. Have another student select the next card, repeating the process until the Bingo card is covered. Have student arrange numbers in order.	Provide class with a large Bingo card that contains the numbers 1-50 in random order. Make another set of 50 cards with each card containing a different number of dots 1-50. Shuffle the cards so that they are in random order. Have student select a card, count the number of dots on it, and locate the number on the Bingo card. Have another student select the next card, repeating the process until the Bingo card is covered.	Provide class with a large Bingo card that contains the numbers 1-10 in random order. Make another set of 10 cards, with each card containing a different number of dots through 10. Shuffle the cards so that they are in random order. Have student select a card, count the number of dots on it, and locate the number on the Bingo card. Have another student select the next card, repeating the process until the Bingo card is covered.	Provide student with a set of number cards with the numbers 1-3. Place the cards in random order in front of the student. Have student identify the number requested, e.g. where is the number 3?
Provide student with a set of 100 pennies. Have student count all the pennies. Next hold up a number card from 1-100 and have student count out the number of pennies that matches the number displayed on the card.	Provide student with a set of 50 pennies. Have student count all the pennies. Next hold up a number card from 1-50 and have student count out the number of pennies that matches the number displayed on the card.	Provide student with a set of 10 pennies. Have student count all the pennies. Next hold up a number card from 1-10 and have student count out the number of pennies that matches the number displayed on the card.	Provide student with a set of 3 pennies. Have student count all the pennies. Next hold up a number card from 1-3 and have student count out the number of pennies that matches the number displayed on the card.

Play a memory game. Provide two sets of 100 cards. One set containing cards with the dots from 1-100 and the other set with the numerals 1-100. Have student match number card with corresponding number of dots card. Start with the cards 1-20 and move up as student becomes proficient, e.g. 20-40, 40-50, etc. Can also group and regroup the cards depending on needs of student.	Play a memory game. Provide two sets of 50 cards. One set containing cards with the dots from 1-50 and the other set with the numerals 1-50. Have student match number card with corresponding number of dots card. Start with the cards 1-10 and move up as student becomes proficient, e.g. 11-20, 21-30, etc. Can also group and regroup the cards depending on needs of student.	Play a memory game. Provide two sets of 10 cards. One set containing cards with the dots numbering 1-10 and the other set with the numerals 1-10. Have student match number card with corresponding number of dots card.	Play a memory game. Provide two sets of 3 cards. One set containing cards with the dots numbering 1-3 and the other set with the numerals 1-3. Have student match number card with corresponding number of dots.
Provide student with a set of number cards 1-100. Shuffle the cards and have student arrange the cards in correct order. When finished, have student count to 100 using the arranged cards as a cue. Collect the cards and have student rote count to 100.	Provide student with a set of number cards 1-50. Shuffle the cards and have student arrange the cards in correct order. When finished, have student count to 50 using the arranged cards as a cue. Collect the cards and have student rote count to 50.	Provide student with a set of number cards 1-10. Shuffle the cards and have student arrange the cards in correct order. When finished, have student count to 10 using the arranged cards as a cue. Collect the cards and have student rote count to 10.	Provide student with a set of number cards 1-3. Shuffle the cards and have student arrange the cards in correct order. When finished, have student count to 3 using the arranged cards as a cue. Collect the cards and have student rote count to 3.
Provide student with a deck of 100 cards. Have student deal the cards to another student counting each card as it is dealt.	Provide student with a deck of 50 cards. Have student deal the cards to another student counting each card as it is dealt.	Provide student with a deck of 10 cards. Have student deal the cards to another student counting each card as it is dealt.	Provide student with a deck of 3 cards. Have student deal the cards to another student counting each card as it is dealt.

Model Academic Standard B: Number Operations and Relationships

Subskill B.a. Concepts

EXTENDED GRADE BAND OBJECTIVE: Ba2

Indicate Parts of a Whole

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Indicate parts of a whole	***Indicates parts of a whole***	***No Achievement Descriptor identified for this level***	***No Achievement Descriptor identified for this level***
Make three sandwiches. Leave one sandwich whole, cut the second sandwich in half, and cut the third sandwich in fourths. Demonstrate how the two halves make a whole and how the fourths make a whole, e.g. may also add how 2/4 are part of the half. Label the whole sandwich with a 1, the half sandwich with ½, and the fourth sandwich pieces with ¼. Remove the labels and have the student match the labels to the whole, halves, and fourths.	Make two sandwiches. Leave one sandwich whole and cut the second sandwich in half. Demonstrate how the two halves make a whole. Label the whole sandwich with a 1 and the halves with ½. Remove the labels and have the student match the labels to the whole and the halves.	Make two sandwiches. Leave one sandwich whole and cut the second sandwich in half. Have student identify a whole and a half sandwich.	Make two sandwiches. Leave one sandwich whole and cut the second sandwich in half. Have student identify the whole sandwich.
Provide student with various games or toys that can be taken apart and put together to form an object, e.g. puzzles, Legos, plastic shapes, etc. Have student identify which parts go together to make a whole. Have student pick one item to put together.	Provide students with various games or toys that can be taken apart and put together to form an object, e.g. puzzles, Legos, plastic shapes, etc. Demonstrate and discuss how the parts make a whole. Have student pick one item to put together.	Provide student with various games or toys that can be taken apart and put together to form an object, e.g. puzzles, Legos, plastic shapes, etc. Pick one item to demonstrate how the parts make a whole. Have student pick one item to take apart and put back together.	Provide student with a puzzle. Demonstrate and discuss how the pieces of the puzzle are put together to complete the puzzle. Have student put the puzzle together.
Provide student with pictures of various articles of clothing, some that come in pairs and some that do not, e.g. hat, mittens, shoes, socks, jacket, boots, pants, etc. Have student identify the articles that come in pairs. Have student identify other things that come in pairs, e.g. eyes, legs, hands, etc.	Provide student with pictures of various articles of clothing, some that come in pairs and some that do not, e.g. hat, mittens, shoes, socks, jacket, boots, pants, etc. Have student identify the articles that come in pairs.	Provide student with various articles of clothing that come in pairs, e.g. mittens, shoes, socks, boots, etc. Mix up the articles and have student find the pairs.	Provide student with various articles of clothing that come in pairs, e.g. mittens, shoes, socks, boots, etc, Mix up the articles of clothing. Choose one item from the pile. Have student find the match or the partner to make a pair.

Flatten a dough-like substance into a pie plate. Demonstrate cutting the dough like substance in half and fourths. Use vocabulary part/whole or whole/half/fourth during demonstration. Provide student with a dough-like substance and a circular pie pan. Have the student flatten the substance into the pie pan and practice cutting the dough into fractional parts. Have student identify the fraction that accurately represents half/part of the whole or whole.	Flatten a dough-like substance into a pie plate. Demonstrate cutting the dough like substance in half and making it whole again. Use vocabulary part/whole or half/whole during demonstration. Provide student with a dough-like substance and a circular pie pan. Have the student flatten the substance into the pie pan and practice cutting the dough into fractional parts. Have student identify the fraction that accurately represents half/part of the whole or whole.	Flatten a dough-like substance into a pie plate. Demonstrate cutting the dough like substance in half and making it whole again. Use vocabulary part/whole or half/whole during demonstration. Provide student with a dough-like substance and a circular pie pan. Have the student flatten the substance into the pie pan and practice cutting the dough into halves. Have student identify whole and half.	Flatten a dough-like substance into a pie plate. Demonstrate cutting the dough like substance in half and making it whole again. Use vocabulary part/whole or half/whole during demonstration. Provide student with a dough-like substance and a circular pie pan. Have the student flatten the substance into the pie pan and practice cutting the dough into parts. Have student identify the whole.
Bring 2 of a variety of fruits that can easily be cut in half, e.g. 2 apples, 2 pears, 2 oranges, etc. Cut each fruit in halves or fourths. Place the two halves or fourths of each fruit in separate containers. Have student match the pieces to the whole by placing the containers next to the appropriate whole fruit.	Bring 2 of a variety of fruits that can easily be cut in half, e.g. 2 apples, 2 pears, 2 oranges, etc. Cut one of each fruit in half. Place the two halves of each fruit in separate containers. Have student match the halves to the whole by placing the containers next to the appropriate whole fruit.	Bring 2 of a variety of fruits that can easily be cut in half, e.g. 2 apples, 2 pears, 2 oranges, etc. Cut one of each fruit in half. Have student identify which fruit is whole and which fruit is half.	Bring 2 of a variety of fruits that can easily be cut in half, e.g. 2 apples, 2 pears, 2 oranges, etc. Cut one of each fruit in half. Have student identify which fruit is whole.

Model Academic Standard B: Number Operations and Relationships

Subskill B.a. Concepts

EXTENDED GRADE BAND OBJECTIVE: Ba3

Identify and Count Like Coins up to One Dollar and Bills Up to Five Dollars

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Identify and count coins of more than one value up to a dollar and bills up to five dollars	***Identify and count like coins up to one dollar and bills up to five dollars***	***Identify and count like coins***	***Recognize a coin***
Provide student with coin purse containing a variety of coins that add up to a dollar. Have student identify and count the coins in the purse.	Provide student with coin purse containing 20 nickels, 10 dimes, 4 quarters, or 100 pennies. Have student identify and count the coins in each purse.	Provide student with a coin purse containing 5 nickels, 10 dimes, 2 quarters, or 10 pennies. Have student identify and count the coins in the purse.	Provide student with two coin purses, one that contains coins and one that contains candy. Have student identify the one that contains coins.
Provide student with sets of assortments of coins that add up to a dollar. Have student count each set of coins and then sort the coins into like groups and count again.	Provide student with an assortment of at least 4 each of various coins. Have student sort the coins and count the like coins.	Provide student with an assortment of 5 dimes and 5 nickels. Have student sort the coins and count the like coins.	Provide student with a group of coins and a group of non coins. Have student identify which group is a group of coins. Have student match like coins.
Provide student with a stack, divisible by 5, of one-dollar bills. Have the student count the bills and arrange in stacks of five**.** Have student count the stacks to determine total amount of money.	Provide student with a stack, divisible by 5, of one-dollar bills. Have the student count the bills and arrange in stacks of five.	Provide student with a set of change and bills. Have the student sort the coins from the bills and count the like coins.	Provide student with a picture of a dime, nickel, penny, and quarter and a set of the real corresponding coins. Have the student match the coins to the pictures.
Place a mixture of various coins on a table. Have student roll a number cube and pick up that many coins from the table. Have student count the value of the coins.	Place several dimes on a table. Have student roll a number cube and pick up that many dimes from the table and count the value of the coins. Repeat the activity with different types of like coins.	Place several dimes on a table. Have student pick a card from a set of cards 1 - 3. Have student pick up that many dimes from the table and count the value of the coins. Repeat the activity with different types of like coins.	Provide student with a coin bank and a group of coins and bills. Have student identify what goes into the coin bank, e.g. coins or bills and place the coins in the bank.

Create a classroom dollar store with prices of items all at a dollar. Provide student with a collection of coins. Have student count out the coins up to a dollar to make a purchase.	Create a classroom dollar store with prices of items all at a dollar but also labeled with dimes only, nickels only, etc. Provide student with a collection of coins. Have student count out the like coins up to a dollar to make a purchase.	Create a classroom store with prices of items labeled with pictures of like coins, e.g. 3 nickels, 2 dimes, 10 pennies, etc. Provide student with a bag of different types of coins, e.g. nickels, pennies, dimes, and quarters. Have student sort the coins and count out the like coins needed to make a purchase.	Create a classroom store with prices of items labeled with pictures coins, e.g. nickel, dime, penny, or quarter. Provide student with a bag of coins, e.g. nickels, pennies, dimes, and quarters. Have student identify the coin from the bag that matches the picture price of the item.

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

EXTENDED GRADE BAND OBJECTIVE: Bb1 (Part 1)

Solve Single Digit Addition and Subtraction Problems

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Solve two-digit addition and subtraction problems without regrouping	***Solve single-digit addition and subtraction problems***	***Solve single-digit addition and subtraction problems to 5***	***Demonstrate a one-to-one correspondence***
Have students work in pairs. Provide each student with a blank template for simple addition problem, e.g. □□ + □□ = □□ and a die. Have one student roll die twice to determine the first addend and the other student roll his die once to determine the second addend. Have each student solve the problem individually and then compare answers to determine the correct answer. Repeat the process having the opposite partner roll his die twice.	Have student work in pairs. Provide each student with a blank template for simple addition problems, e.g. □ + □ = □ and a die. Have one student roll die to determine the first addend and the other student roll his die to determine the second addend. Have each student solve the problem individually and then compare answers to determine the correct answer.	Have student work in pairs. Provide each student with a blank template for simple addition problems, e.g. □ + □ = □ and a spinner with the numbers 1-3. Have one student spin to determine the first addend and the other student spin to determine the second addend. Have each student solve the problem individually and then compare answers to determine the correct answer.	Provide student with a set of chips and a spinner with the numbers 1-5 and corresponding number of dots in each section. Have student spin the spinner and count out or match the number of chips to the number of dots designated by the spin.
Provide student with a visual representation of an addition or subtraction two-digit problem. Have student use a number line, 100's chart, or manipulative to solve the problem.	Provide student with a visual representation of an addition or subtraction single-digit problem. Have student use a number line, 100's chart, or manipulative to solve the problem.	Provide student with a visual representation of an addition or subtraction problem up to 5. Have student use a number line, 10's chart, or manipulative to solve the problem.	Have student use one-to-one correspondence to count various objects up to 5.
Provide student with a set of 10 flash cards of two-digit simple addition or subtraction problems - no regrouping. Have student solve the problems using a number line. Correct problems with student and discuss errors. Have student record the number correct on a chart. Have student do the problems again. Correct problems; discuss errors, and record results. Have student determine which score was better.	Provide student with a set of 10 flash cards of single-digit addition or subtraction problems. Have student solve the problems using a number line. Correct the problems with the student and discuss errors. Have student record the number correct on a chart. Have student do the problems again. Correct problems; discuss errors, and record results. Have student determine which score was better.	Provide student with a set of 10 flash cards of simple addition or subtraction problems with the sum no more than 5. Have student solve the problems using a number line. Correct the problems with the student and discuss errors. Have student record the number correct on a chart. Have student do the problems again. Correct problems; discuss errors, and record results.	Provide the student with a set of flashcards with sets of objects from 1-5. Have the student count the objects on each card.

Provide a container full of like coins. Have students reach into container with each hand and grab some coins. The coins from one hand will provide the number for one side of the problem and the coins from the other hand will provide the number for the other side of the problem - adjust the number of coins so it is insured students grab a double digit number and regrouping will not be involved. Have student add or subtract the number of coins. For subtraction, student will need to determine the larger number. Have student count the coins of the sum.	Provide a container of no more than 10 like coins, e.g. pennies, nickels, dimes, and quarters. Have students reach into container with each hand and grab some coins. The coins from one hand will provide the number for one side of the problem and the coins from the other hand will provide the number for the other side of the problem. Have student add or subtract the number of coins. For subtraction, student will need to determine the larger number. Have student count the coins of the sum.	Provide a container of no more than 5 like coins, e.g. pennies, nickels, dimes, and quarters. Have students reach into container with each hand and grab some coins. The coins from one hand will provide the number for one side of the problem and the coins from the other hand will provide the number for the other side of the problem. Have student add or subtract the number of coins. For subtraction, student will need to determine the larger number. Have student count the coins of the sum.	Provide a container of no more than 5 like coins, e.g. pennies, nickels, dimes, and quarters. Have students reach into container and grab some coins. Have student count the coins.
Provide student with a template, e.g. □□ +□□ = □□, □□-□□ = □□ and a set of dominoes **(**set of double 15's – removing the double 15). As a class, set up two-digit addition or subtraction problem using the number of dots on each side of the domino to create the addends or subtrahend. For subtraction problems, student will need to determine which side has more dots and put this number in the first box. Have student solve the problem.	Provide student with a template, e.g. □ +□ = □, □ - □ = □ and a set of dominoes with no more than nine dots per half. As a class, set up single digit addition or subtraction problem using the number of dots on each side of the domino to create the addends or subtrahend. For subtraction problems, student will need to determine which side has more dots and put this number in the first box. Have student solve the problem.	Provide student with a template, e.g. □ +□ = □, □-□ = □ and a set dominoes (double 5's). As a class, set up single digit addition or subtraction problem using the number of dots on each side of the domino to create the addends or subtrahend - solution no greater than 5. For subtraction problems, student will need to determine which side has more dots and put this number in the first box. Have student solve the problem.	Provide student with a set of dominoes (double 5's). Have student count the dots on each side**.**

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

EXTENDED GRADE BAND OBJECTIVE: Bb1 (Part 2)

Multiply and Divide Sets of Objects By 2

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Multiply and divide sets of objects by number greater than 2	***Multiply and divide sets of objects by 2***	***No Achievement Descriptor identified for this level***	***No Achievement Descriptor identified for this level***
Have student plan a party for 10 students. Each student will receive 3 cookies, 3 orange slices, and 3 pretzel sticks. How many of each item will be needed? Repeat the process several times, changing the number of students coming to the party each time. Demonstrate multiplication as repeated addition, e.g. 3+3+3+3+3+3+3+3+3+3=10 x 3 = 30.	Have student plan a party for 10 students. Each student will receive 2 cookies, 2 orange slices, and 2 pretzel sticks. How many of each item will be needed? Repeat the process several times, changing the number of students coming to the party each time. Demonstrate multiplication as repeated addition, e.g. 2+2+2+2+2+2+2+2+2+2=10 x 2 = 20.	Have student plan a party for 5 students. Each student will receive 2 cookies. Have student determine how many cookies are needed for the party.	Have student distribute two cookies to each student in the class from a box of cookies.
Provide student with a set of objects that is divisible by 3 Use sets of 9. Have student create sets of 3 from the larger set. Have student count the number of sets of 3 he created from each larger set of objects, e.g. 3. Demonstrate division as repeated subtraction, e.g. 9-3-3-3=9÷3=3. Repeat process with other sets divisible by 3.	Provide student with a set of objects that is divisible by 2. Use sets of 10. Have student create sets of 2 from the larger set. Have student count the number of sets of 2 he created from each larger set of objects, e.g. 5. Demonstrate division as repeated subtraction, e.g. 10-2-2-2-2-2=10÷2=5. Repeat process with other sets divisible by 2.	Provide student with a set of objects that is divisible by 2. Use sets of 10. Have student create sets of 2 from the larger set. Have student count the number of sets.	Provide student with a set of objects that is divisible by 2 Use sets of 10. Have student create sets of 2 from the larger set.
Have student give five crayons to each student in the class. Have student determine how many total crayons he passed out by counting by 5's.	Have student give two crayons to each student in the class. Have student determine how many total crayons he passed out by counting by 2's.	Have student give two crayons to each student in the class. Have student count the number of students and the number of crayons passed out.	Have student give two crayons to each student in the class. Ask each student to return one crayon.

Explain to the class that they are going to play a game that requires three teams. In order to play the game they need to divide the number of students in the room by three. Have students count off by threes and as they count move to the one, two, or three side of the room. Count the number on each team. Are they the same?	Explain to the class that they are going to play a game that requires two teams. In order to play the game they need to divide the number of students in the room by two. Have students count off by twos and as they count move to the one or two side of the room. Count the number on each team. Are they the same?	Explain to the class that they are going to play a game that requires a partner. Have the student find a partner. Have the students count the groups of two.	Explain to the class that they are going to play a game that requires a partner. Have the student find a partner.
Provide student with simple number problems that involve combining or separating objects. Have student separate or combine groups of objects in order to demonstrate multiplication as grouping or repeated addition, e.g. there are 5 students in the class, each student has 3 pencils. How many pencils do we have in the whole class? Guide student in writing the number sentence, e.g. 3+3+3+3+3=5x3=15.	Provide students with simple number problems that involve combining or separating objects. Have student separate or combine groups of objects in order to demonstrate multiplication as grouping or repeated addition e.g. there are 5 students in the class, each student has 2 eyes. How many eyes do we have in the whole class? Guide student in writing the number sentence, e.g. 2+2+2+2+2=5x2=10.	Provide student with simple number problems that involve combining or separating objects. Have student separate or combine groups of objects as dictated by the number problem.	Provide student with groups of objects. Have student separate or combine groups of objects as instructed.

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

EXTENDED GRADE BAND OBJECTIVE: Bb2

Compare Two Groups Based on More or Less

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Compare two groups based on smallest and biggest	***Compare two groups based on more or less***	***No Achievement Descriptor identified for this level***	***No Achievement Descriptor identified for this level***
Provide students with a bar graph depicting the size, e.g. number of students in each class, of all the classes in the school. Have student answer questions about which classes are bigger or smaller using the graph as a guide.	Provide photos of each student in the class. Have student place photos of the boys in a column labeled Boys and photos of girls in a column labeled Girls. Have the student answer questions about more and less using the chart as a guide.	Provide photos of each student in the class. Have student place photos of the boys in a column labeled Boys and photos of girls in a column labeled Girls.	Provide photos of each student in the class. Have student sort the pictures into two groups, one of boys and one of girls.
Provide student with two groups of coins. Have student count the coins in each group and identify which group contains the bigger or smaller amount of money.	Provide student with two groups of like coins. Have student count the coins in each group and identify which group contains more or less money. Create a > or < statement as a class.	Provide student with two groups of like coins. Have student count the coins in each group and identify which group contains more.	Provide student with two stacks of like coins. Have student identify which stack has more coins.
Provide student with a set of coins, e.g. penny, nickel, dime, quarter, and half dollar and a one-dollar bill. Present student with two combinations of coins or a coin and the dollar bill. Have student count the value of each combination of coins or bill and identify which is worth more money. Repeat with different combinations.	Provide student with a set of coins, e.g. penny, nickel, dime, quarter, and half dollar and a one-dollar bill. Present student with two coins or a coin and the dollar bill. Have student identify the value of the two coins or bill and identify which is worth more money. Repeat with different combinations.	Provide student with a set containing one penny and a set containing five pennies. Have student count the pennies in each set and identify which set is more. Repeat with different coins and different amounts.	Provide student with a set containing one penny and a set containing five pennies. Have student count the pennies in each set and identify which set is more.
Provide student with a chart showing the total number of students in the fifth grade and the sixth grade for the last 10 years. Have student determine which class was bigger or smaller in each of the years.	Provide student with a chart showing the final scores for each of the games played in the season. Have student determine if the team won or lost the game depending on which number represented more points.	Show student two numbers from 1-10, e.g. 3 and 6. Have student identify which number is bigger.	Show student two numbers from 1-5, e.g. 1 and 5. Have student identify which number is bigger.

Create a line depicting sizes of objects from smallest to biggest with a few of the objects in the pattern omitted. Have the missing objects printed on cards. Have student insert the missing objects into the appropriate place on the line. Using the completed line, have student identify number of objects that are bigger or smaller than a specific identified object on the line.	Create a number line from 1-20 with some of the numbers omitted. Write the missing numbers on cards. Have student place the cards on the number line in the appropriate place. Using the completed number line as a guide, have student answer questions such as, Which numbers are greater than four? Less than three?	Create a number line from 1-10 with some of the numbers omitted. Write the missing numbers on cards. Have student place the cards on the number line in the appropriate place. Using the completed number line as a guide, have student answer questions such as, Which numbers are greater than four?	Create a number line from 1-10 with some of the numbers omitted. Write the missing numbers on cards. Have student place the cards on the number line in the appropriate place.

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
C.c. Coordinate Systems

EXTENDED GRADE BAND OBJECTIVE: Ca1

Name and Compare Basic Shapes, e.g. circle, rectangle, square, and triangle

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Name and compare basic shapes and identify how they are different	***Name and compare basic shapes, e.g., circle, rectangle, square, and triangle***	***Identify basic shapes, e.g., circle, rectangle, square, and triangle***	***Match basic shapes, e.g., circle, rectangle, square, and triangle***
Place a variety of cutout shapes in a bag. Have student reach in and draw two shapes from the bag. Have student identify the two shapes and identify how the shapes are the same or different.	Place a variety of cutout shapes in a bag. Have student reach in and draw two shapes from the bag. Have student identify the two shapes and identify if the shapes are the same or different.	Place a variety of cutout shapes in a bag. Have student reach in and draw a shape from the bag. Have student identify the shape.	Place a variety of cutout shapes in a bag. Provide student with a set of shapes to place on the table. Have student reach in and draw a shape from the bag. Have student match the shape to corresponding shape on the table.
Provide student with four mystery boxes labeled 1, 2, 3, and 4. Each containing one raised shape, e.g. circle, square, triangle, and rectangle. Provide student with a sheet of paper labeled with the numbers 1-4. Beside each number, display pictures of shapes that may be in the boxes. Have student reach in the box, feel the shape, and circle the shape on the paper it felt like. Student list reasons for choice by stating the attributes of the shape. After student has completed the activity for all four boxes, reveal the shapes and have student check their work.	Provide student with four mystery boxes labeled 1, 2, 3, and 4. Each containing one raised shape, e.g. circle, square, triangle, and rectangle Provide student with a sheet of paper labeled with the numbers 1-4. Beside each number, display pictures of shapes that may be in the boxes. Have student reach in the box, feel the shape, and circle the shape on the paper it felt like. After student has completed the activity for all four boxes, reveal the shapes and have student check their work.	Provide student with four mystery boxes labeled 1, 2, 3, and 4. Each containing one raised shape, e.g. circle, square, triangle, and rectangle. Have student reach in the box, feel the shape, and identify which shape student thinks is in the box. Reveal the shape and check answer. Repeat the procedure for the remaining boxes.	Provide student with four mystery boxes labeled 1, 2, 3, and .4 Each containing one raised shape, e.g. circle, square, triangle, and rectangle. Provide student with a set of shapes that match the shapes in the boxes. Have student reach in the box, feel the shape, and identify which shape student thinks is in the box by identifying the matching shape outside the box.

Provide student with a set of pattern blocks. Have student create a design using the pattern blocks. Have student identify the shapes used in the design and identify how shapes that are touching each other are the same or different**.**	Provide student with a set of pattern blocks. Have student create a design using the pattern blocks. Have student identify shapes used in the design and compare the shapes that are touching each other in the design.	Provide student with a set of pattern blocks and a picture of a design made using the pattern blocks. Have student identify the shapes in the design and place the pattern blocks on top of the corresponding shapes in the design.	Provide student with a set of pattern blocks and a pattern block template worksheet. Have student match the pattern blocks to the shapes on the template.
Play a game of "I Spy". Have one student describe a classroom object that has the shape of a rectangle, square, triangle, or circle, 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. The next student must identify a shape that is different than the previous shaped object identified.	Play a game of "I Spy". Have one student describe a classroom object that has the shape of a rectangle, square, triangle, or circle, 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.	Play a game of "I Spy". Have one student name an object in the classroom that is in the shape of a circle, square, rectangle, or triangle. Have other students in the class identify the shape.	Play a game of "I Spy". Provide student with a large cutout shape. Have student locate similarly shaped object in room.
Provide a game board with a typical path of different colored spaces with shapes on them and markings, e.g. go back two spaces, skip a turn, etc. and a deck of shape cards. Have student draw a card from a stack of shape cards, identify the shape on the card, and the number of sides the shape has. Student will then move his game piece the number of spaces that corresponds to the number of sides on the shape. Have student identify if the shape on the card is the same or different from the space they landed on the game board.	Provide a game board with a typical path of different colored spaces with shapes on them and markings, e.g. go back two spaces, skip a turn, etc. and a deck of shape cards. Have student draw a card from a stack of shape cards, identify the shape on the card, and the number of sides the shape has. The student will then move his game piece the number of spaces that corresponds to the number of sides on the shape.	Provide a game board that has a path of randomly placed shapes and a deck of shape cards. Have student draw a shape card, identify shape, and move to the next corresponding space that matches the shape on the card.	Play "Shape Bingo." Student finds the shape on his Bingo card that matches the shape card displayed and places a marker on it.

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

EXTENDED GRADE BAND OBJECTIVE Ca2:

Identify Directions, e.g. east, west, north, south, left, and right

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Apply directional concepts, e.g. east, west, north, south, right, and left	***Identify directions, e.g. east, west, north, south, right, and left***	***Recognize four positional concepts, e.g. top, bottom, in, out, front, back***	***Recognize two positional concepts, e.g. top, bottom, in, out, front, back***
Place a compass rose on the classroom floor. Have student follow directional instructions to move around the room.	Place a compass rose on the classroom floor. Have student stand in the center of a compass rose and point in the direction requested.	Provide student with an object and a small box. Have student place the object in four positions as directed, e.g. place the object in the box.	Provide student with an object and a small box. Have student place the object in two positions as directed, e.g. put object on top of the box.
Create a large map of the classroom with an overlying grid. Label the grid with letters along the x-axis and numbers along the y-axis. Have student locate objects on the map and identify the coordinates.	Create a large map of the classroom with an overlying grid. Label the grid with letters along the x-axis and numbers along the y-axis. Have student locate objects on the map when given coordinates.	Create a large map of the classroom. Have student identify objects on the map that are located at four different positions on the map.	Create a large map of the classroom. Have student identify objects on the map that are located at two different positions on the map.
Play a game of "Simon Says." Have student move in the response to verbal or pictorial directions. Have student identify the direction he or she moved.	Play a game of "Simon Says." Have student move in the response to verbal or pictorial directions.	Have student demonstrate through body movement the understanding of four positional concepts, e.g. move to the front of the line, step inside the circle, etc.	Have student demonstrate through body movement the understanding of two positional concepts, e.g. move to the front of the line, back of the line, etc.
Provide student with a jig-saw puzzle. Have student complete the puzzle by sliding and rotating pieces.	Provide student with a jig-saw puzzle. Have student complete the puzzle by sliding and rotating pieces as directed.	Provide student with a simple shape puzzle. Have student complete the puzzle by sliding and rotating pieces through four positional concepts as modeled.	Provide student with a simple shape puzzle. Have student complete the puzzle by sliding and rotating pieces through two positional concepts as modeled.
Have student set a place setting identifying the positions of each of the items in the place setting, e.g. fork on the left of the plate, spoon next to the knife, etc.	Have student set the table, following directives as to where to place items in a place setting, e.g. silverware to the right or left of plate.	Have student set the table, demonstrating four positional concepts, e.g. top, bottom, in, out, etc.	Have student set the table, demonstrating two positional concepts, e.g. top, bottom, etc.

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
D.c. Indirect Measurement

EXTENDED GRADE BAND OBJECTIVE: Da1

Connect Calendars and Clocks to Everyday Situations

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Utilize calendars and clocks in everyday situations	***Connect calendars and clocks to everyday situations***	***Match situation to use of clock or calendar in everyday situations***	***Recognize calendar or clock***
Using a class wall calendar, have student identify day, date, year, special events, number of days in a week, number of days in the month, etc. Have student count days left in the week and the month and identify yesterday and tomorrow.	Using a class wall calendar, have student identify day, date, year, special events, number of days in a week, number of days in the month, etc.	Using a class wall calendar, have student place date on calendar in correct location.	Using a class wall calendar, have student identify the space on the calendar that represents the day's date.
Provide student with a calendar for a month and a set of stickers representing holidays, special classes, e.g. physical education, art, music, etc. and school activities, e.g. open house, concert, etc. Have student create a personal calendar for the month.	Provide student with a calendar for a month and a set of stickers representing holidays, special classes, e.g. physical education, art, music etc. and school activities, e.g. open house, concert, etc. As a class, guide students to create a personal calendar for the month.	Provide student with a calendar that has holidays, special classes, e.g. physical education, art, music etc. and school activities, e.g. open house, concert, etc. noted with symbols. Discuss the symbols and activities with student. Have student identify the activities on the calendar as requested.	Provide student with a calendar that has holidays, special classes, e.g. physical education, art, music, etc. and school activities, e.g. open house, concert, etc. noted with symbols. Discuss the symbols and activities with student. Have student identify the calendar on request.
Have student create a schedule of activities for the day to include start time, end time, time of classes, and lunchtime. Personalize for student.	Provide student with a template for creating a schedule of activities for the day to include start time, end time, time of classes, and lunchtime. Personalize for student.	Provide student with a completed schedule of activities for the day to include start time, end time, time of classes, and lunchtime. Discuss the schedule with student. Have student locate specific activities designated on the schedule.	Provide student with a completed schedule of activities for his or her day to include start time, end time, time of classes, and lunchtime. Discuss the schedule with student. Have student work from left to right to identify the next activity on the schedule.

student with a listing of television programs and times for one day. Have student select their favorite programs from the list and highlight the time. Have student manipulate clock hands to represent the time the program begins and identify if the program is on in the morning, afternoon, or evening.	Provide student with a listing of television programs and times for one day. Have student select their favorite programs from the list and highlight the time. Have student manipulate clock hands to represent the time the program begins.	Provide student with a listing of television programs and times for one day. Have student select their favorite programs from the list and highlight the time. Discuss the time the show starts and have student identify if he will use a clock or a calendar to check the time.	Provide student with a listing of television programs and times for one day with the time their favorite program highlighted. Discuss the time the show starts and that a clock tells us the time. Have student identify a clock.
Provide student with a list of months in the year. Have the student create a list of holidays, seasons and other special occasions, e.g. birthday, start and end of school, etc. that occur in each of the months.	Provide student with a list of months in the year and a list of holidays, seasons and other special occasions, e.g. (birthday, start and end of school, etc. Have student place the identified occasions under the month in which they occur.	Provide student with flash cards identifying major holidays and the months in which they occur, e.g. Halloween, Valentines, etc. Have student match the holiday to the month.	Provide student with pictures of various clocks and calendars. Have student sort out all the clocks or calendars.

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, Statistics

E.b. Probability

EXTENDED GRADE BAND OBJECTIVE: Ea1

Sort and Display Data on a Grid to Make a Simple Graph

Instructional Achievement Descriptors

Advanced	Proficient	Basic	Minimal
Sort and display data on a grid to make a simple graph including labels	***Sort and display data on a grid to make a simple graph***	***Sort and place on a grid, data based on one attribute***	***Select data based on one attribute***
Have student survey 10 people not in their class, asking the question, What is your favorite fruit? From a choice of three fruits. Have student record the answers on a three-column chart. Have student use the data collected to create a bar graph labeling the y-axis with number of responses and the x-axis with kinds of fruit. After the completing the graph, have student determine the favorite fruit of the people surveyed.	Have student survey 10 people not in their class, asking the question, "What is your favorite fruit? From a choice of three fruits. Have student record the answers on a three-column chart. Have student use the data collected to complete a bar graph that has the x-axis and y-axis labeled. After completing the graph, have student determine the favorite fruit of the people surveyed.	Provide a graph on the floor that has large squares. Have student poll five people, asking if they like bananas or oranges better. Record the responses for the student to use in completing the graph on the floor. Read the responses aloud, have student select a representation of the fruit that matches the response and place it on a square in the appropriately labeled bar.	Provide a graph on the floor that has large squares. Have student poll five people, asking if they like bananas or oranges better. Record the responses for the student and complete the graph on the floor using visual representations. Have student identify the bar that represents the oranges or the bananas.
As a class, record the average daily temperature for a one-week period. Have student create line graph with the x-axis for dates and the y-axis for the range of temperatures. Plot the temperatures. Have student determine which date had the highest or lowest temperature.	As a class record the average daily temperature for a one-week period. Have student plot the temperatures on a line graph. Have student determine which date had the highest or lowest temperature.	As a class record the average daily temperature for a one-week period. Have student match the temperature to the same number on a graph.	As a class record the average daily temperature for a one-week period. Have student identify the date or the temperature on request.

Create a story problem in which students go to a fast food restaurant. Two students order hamburgers, one student orders a hot dog, and one student orders a taco. Provide student with a circle to create a circle graph for the story problem. Determine the number of parts the circle should be divided into by the number of students who went to the restaurant and then color two sections to represent hamburgers and one section each for the hot dog and taco. Have student label each section of the chart.	Create a story problem in which students go to a fast food restaurant. Two students order hamburgers, one student orders a hot dog, and one student orders a taco. Provide student with a circle to create a circle graph for the story problem. Determine the number of parts the circle should be divided into by the number of students who went to the restaurant and then color two sections to represent hamburgers and one section each for the hot dog and taco.	Create a story problem in which students go to a fast food restaurant. Two students order hamburgers, one student orders a hot dog, and one student orders a taco. Create a circle graph for the problem using pictures of items ordered in each section, e.g. two sections with a hamburger and one section each for the hot dog and the taco. Have student identify the sections on the graph when asked for a specific attribute, e.g. hamburger, hot dog, or taco.	Create a story problem in which students go to a fast food restaurant. Two students order hamburgers, one student orders a hot dog, and one student orders a taco. Create a circle graph for the problem using pictures of items ordered in each section, e.g. two sections with a hamburger and one section each for the hot dog and the taco. Have student identify the hamburger, hot dog, or taco.
Have student collect data on the wins and losses of their favorite sports team over the sports season. At the end of the season, have student create a graph with appropriate labels that shows the results of the team. Determine if the team had a winning season.	Have student collect data on the wins and losses of their favorite sports team over the sports season. At the end of the season, have student graph the results and determine if the team won or lost more.	Have student identify his favorite sports team. After each game, provide student with the final score of the game. Have student record a W and a L on a two column chart under the appropriate win or loss heading.	Have student identify his favorite sports team. After each game, provide student with the final score of the game and record a W and a L on a two column grid. Have student identify the win or loss column on the grid.
Conduct a class survey on how each student gets to and from school each day. Have student display the information in a pictograph. Have student determine the most and least popular mode of transportation.	Conduct a class survey on how each student gets to and from school each day. Have student display the information in a pictograph.	Conduct a class survey on how each student gets to and from school each day. Display the information in a pictograph. Have student identify where the data for each mode of transportation is located on the graph.	Conduct a class survey on how each student gets to and from school each day. Display the information in a pictograph. Have student identify where the data about the bus is located on the graph.