Scope and Sequence

Complete Math Grade 2

Complete Math Grade 2

Complete Math for Grade 2 is a comprehensive (500+ activities) Mathematics program designed to give students all of the mathematical skills required for mastery to the end of Grade 2. Each component of the program uses hundreds of activities to build skills gradually and sequentially. Auditory instructions, help buttons and rule files ensure that students will navigate the activities easily, independently and at their own level of ability. A wide variety of reward and reinforcements keep the students engaged and motivated to succeed while they develop academic self confidence.

Program Layout

1. Numeration
2. Patterning
3. Measurement
4. Geometry
5. Data Management
6. Probability
7. Problem Solving

Targeted Skills

Numeration
Measurement
Patterning
Geometry
Data Management
Probability
Problem Solving

Marks Manager

Using the new Version 5 Marks Manager a teacher can assign program pretests to individual students, or an entire class. Based on pretest results the Marks Manager will create an individualized program to target each student's skill deficits. It's completely automated and provides a highly efficient way to tailor instruction to meet specific learning needs. It provides individualized student instruction in a way that is not otherwise possible given limited time & resources.

- Pretests automatically assess the skill and ability levels of each student
- Automatic creation of an individualized program for each student's specific needs
- Teachers also retain the ability to customize all programs to meet instructional needs
- New "Hot Spots" report quickly identifies areas of student difficulty
- New "Skills" report relates all activities to specific curriculum outcomes
- Stores student marks and progress in one central location for all programs
- Creates and prints reports quickly and easily for sharing with parents and staff

1. NUMERATION

1 - Working with Numbers

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Fill in the Blanks 0 to 50 **Fill in the Blanks 50 to 100**	Type the missing numbers.	Count up by 1's.	CCSS.Math.Content.2.NBT.A1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. CCSS.Math.Content.2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. CCSS.Math.Content.2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
Counting with an Abacus (by 2's) **Counting with an Abacus (by 5's)** **Counting with an Abacus (by 10's)**	Click in groups of 2, 5 or 10 beads to move them along the abacus to count up to the number shown.	Count up by 2's, 5's and 10's by using an abacus.	
Count by 2's **Count by 5's**	Type the missing numbers.	Count up by 2's and 5's.	
Count by 10's **Count by 25's**	Type the missing numbers.	Count up by 10's and 25's.	
Counting Backwards from 10 **Counting Backwards from 20**	Count backwards and type the missing numbers.	Count backwards by 1's from 10 and 20.	
Number Words 1 to 20	Type the number that matches each number word.	Read number words 1 to 20.	
Odds and Evens	Click on whether a given number is odd or even.	Understand the difference between odd and even numbers.	CCSS.Math.Content.2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

2 - Comparing Numbers

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Compare 20 to 50 **Compare 50 to 100**	Click on the number units to put the correct number in the tens box and the ones box.	Represent two digit numbers in terms of place value - tens and ones.	CCSS.Math.Content.2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
Biggest Number 20 to 50 **Biggest Number 50 to 100**	Click on the biggest number.	Compare numbers and identify which number has the greatest or smallest value.	
Smallest Number 20 to 50 **Smallest Number 50 to 100**	Click on the smallest number.		
Color a Pattern Numbers Under 50 **Color a Pattern Numbers Over 50**	Color the number squares in order to make a pattern or picture on this grid.	Count by 1's.	
Unscramble	Click on the numbers in the correct order going from the smallest to the largest.	Count up by 1's. Reorder out of sequence numbers into their proper numerical sequence.	
Type the Numbers in Order	Type the numbers in order from smallest to largest.		
Pick the Middle Number	Click on the middle number in each group.	Compare numbers and identify which number has the greatest or smallest value.	
Find the in Between Number	Click on the number that belongs between the two numbers at the top.		
Bigger, Smaller or Same As	Type how many objects you see on each side of the sign.	Understand one-to-one correspondence between number and visual group of objects. Understand greater than, less than, and equal signs and apply them to pairs of numbers 1 to 100.	
Choose the Correct Sign	Click on the correct sign to compare the amount of items in each box.		

3 - Addition Facts

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Addition Facts - #s 1 to 9	Pick the correct answer to the addition problems.	Review addition facts to 18.	CCSS.Math.Content.2.OA.B.2 Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.

4 - Addition

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Add 2 Digits with 1 Digit **Add 3 Digits with 1 Digit** **Add 2 Digits with 2 Digits**	Type the correct answer to the addition problems.	Addition: 2 digits to 1 digit. Addition: 3 digits to 1 digit Addition: 2 digits to 2 digits.	CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. CCSS.Math.Content.2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. CCSS.Math.Content.2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. CCSS.Math.Content.2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations. CCSS.Math.Content.2.NBT.B.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. CCSS.Math.Content.2.NBT.B.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. CCSS.Math.Content.2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.
Regrouping 1 **Regrouping 2** **Mixed Practice**		Addition: 2 digits to 1 digit. Addition: 3 digits to 1 digit Addition: 2 digits to 2 digits.	

5 - Subtraction Facts

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Subtraction Facts - #s 4 to 9	Type the correct answer to the subtraction problems.	Review subtraction facts to 18	CCSS.Math.Content.2.OA.B.2 Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.

6 - Subtraction Facts

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Learn to Subtract	Type the correct answer to the subtraction problems.	Subtraction: 1 digit from 2 digits.	CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. CCSS.Math.Content.2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. CCSS.Math.Content.2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. CCSS.Math.Content.2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations. CCSS.Math.Content.2.NBT.B.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. CCSS.Math.Content.2.NBT.B.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. CCSS.Math.Content.2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.
Subtract 2 Digits from 2 Digits		Subtraction: 2 digit from 2 digits.	
Regrouping 1 **Regrouping 2** **Mixed Practice**		Subtraction: 1 digit from 2 digits. Subtraction: 2 digit from 2 digits.	

7 - Money

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Dimes **Quarters** **Dimes & Pennies** **Dimes & Nickels** **Dimes, Nickels & Pennies** **Quarters & Dimes** **Quarters & Nickels** **Quarters, Dimes, Nickels & Pennies** **Counting Change** **(2 activities each)**	Click on all the coins to count them, then click on the answer.	Understanding value of coins. Adding and subtracting change up to one dollar.	CCSS.Math.Content.2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

8 - Fractions

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Dividing into Equal Parts	Click on the checkmark if the shape is divided into equal parts.	Understand if a shape is divided into equal sections.	CCSS.Math.Content.2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. CCSS.Math.Content.3.NF.A.1 Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.
Which One Has Equal Parts	Click on the shape that is divided into equal parts.		
Count the Equal Parts	Type how many equal parts each shape is divided into.	Understand how many sections a shape is divided into.	
Making Fractions	Type how many equal parts are in each shape, then type how many parts are colored.	Understand how many sections a shape is divided into. Understand how many sections of a shape are highlighted.	
Fraction Names	Match the fraction with the fraction word.	Understand basic fraction words - halves, thirds, quarters.	
Color the Fractions	Chose a color button, then color the fraction that you hear.	Understand how many sections a shape is divided into. Understand how many sections of a shape are highlighted.	

9. Multiplication and Division

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Learn to Multiply (3 activities)	Type the answer for each question.	Understand multiplication (x groups of x). Calculate basic multiplication problems.	CCSS.Math.Content.3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
Learn to Divide (3 activities)		Understand division (x groups from x). Calculate basic division problems.	

10. Ordinal Numbers

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Ordinal Numbers 1 to 10 **Ordinal Numbers 11 to 20** **Ordinal Numbers 21 to 30**	Click on the picture that matches the ordinal number you hear.	Understand ordinal numbers 1st through 30th.	CCSS.Math.Content.2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
Learn the Numbers 1 to 10 **Learn the Numbers 11 to 20** **Learn the Numbers 21 to 30**	Click on the number that matches the ordinal for the number you hear.	Understand ordinal numbers 1st through 30th.	

2. PATTERNING

Patterning - 1 - What is Missing?

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Fill in the Blanks	Fill in the missing numbers in these patterns.	Fill in a missing entry in a numerical pattern.	CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
Numbers	Type the missing number to complete each pattern.		
Letters	Look at the pattern and type the letter that belongs where the red X is.	Fill in a missing entry in a letter pattern.	
Shapes	Look at the pattern and click the shape that belongs where the red X is.	Fill in a missing entry in a geometric pattern.	
Students	Your teacher arranges the desks in a pattern that goes GIRL, GIRL, BOY. Fill in the missing entries from the pattern.	Fill in missing entries in a word pattern.	

Patterning - 2 - What Comes Next?

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Counting by Ones	Counting by ones, which number comes before / after this number?	Determine the next entry for a given numerical pattern.	CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
Counting by Twos	Counting by twos, which number comes before / after this number?		
Numbers (2 activities)	Type the next number in each pattern.		
Next Three Numbers (2 activities)	Select the correct group of 3 numbers that continues the pattern above.	Determine the next 3 entries for a given numerical pattern.	
Flowers	Look at the pattern of flowers at the top of the screen, then click on the flower that comes next.	Determine the next entry for a given pictoral pattern.	

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Blocks	Look at the pattern of blocks and determine which blocks would come next in the sequence.	Determine the next entry for a given geometric pattern.	
Triangles (2 activities)	Look at the pattern of triangles at the top of the screen, then click on the triangle that comes next.		

Patterning - 3 - Make the Pattern

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Clothes	Listen to the pattern and click on the group of 3 items of clothing that continues the pattern.	Create a pictoral pattern from a spoken sequence.	CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
Letters	Listen to the letter patterns and type each pattern you hear.	Create a letter pattern from a spoken sequence.	
Increasing Patterns	Click on the numbers in order to make the pattern requested. (eg. “Up by 3’s”)	Create a numerical pattern from a printed description.	
Decreasing Patterns			
Match the Numbers	Match the missing numbers with their patterns by clicking on them.	Complete a numerical pattern.	

Patterning - 4 - Talking About Patterns

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Addition or Subtraction?	Read the pattern at the top of the screen and click on addition if it is going up or subtraction if it is going down.	Determine whether a printed numerical pattern is based on addition or subtraction.	CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain
Describe the Color Pattern	Click on the geometric pattern that matches the typed pattern at the top of the screen.	Match a printed description with a geometric pattern.	
Describe the Shape Patterns	Pick the correct description for each geometric pattern shown.		

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Fruit Loops	Various questions about how fruit loops are arranged in a bowl.	Recognize a pattern in a pictoral arrangement.	why 4 times a number can be decomposed into two equal addends.
Describe the Number Patterns	Match the number pattern with its description.	Match a printed description with a numerical pattern.	

Patterning - 5 - Number Charts

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Number Charts	Look at the pattern on the number chart and then click on the next 10 numbers of the pattern.	Use a hundreds chart to continue a given numerical pattern.	CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

3. MEASUREMENT

1. Days, Months, Seasons

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Order the Days I & II	Put the days in order.	Understand the orders of days.	CCSS.Math.Content.2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
Order the Months I & II	Put the months in order.	Understand the order of months.	
The Order of Months	Various questions about which month comes before or after another.		
Find the Day	Find various days on a calendar.	Read the date on a calendar.	
Calendar Problems	Answer various questions about days and weeks on a displayed month.		
What Day is It?	Identify which day is checked on a calendar.		
Click the Birthday	Click on each person's birthday on this calendar.		
Days, Weeks, Months	Match the amount of time in the column on the left with an equal amount of time in the column on the right.	Understand relationships between hours, days, weeks and months and find equivalencies between different measurements.	

2. Telling Time

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
How Many?	How many days / weeks / minutes / hours, etc in x days / weeks / minutes / hours.	Understand relationships between hours, days, weeks and months and find equivalencies between different measurements.	CCSS.Math.Content.2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
How Long Does It Take?	Identify how long it takes to perform each of the familiar tasks identified.	Estimate measures of time and relate it to their day to day experiences.	
AM or PM	Choose whether the activity depicted is usually done in the AM or PM	Understand meaning of AM and PM.	
Reading a Clock	Click on the time that is equal to the time shown on the analog clock.	Read analog clocks to the hour, half hour and quarter hour.	
What Time is It?	Type the correct time shown on each analog clock.		
Time Match	Match the written digital time on the left with the written time on the right.	Read time notations to the quarter-hour.	
Before & After	Choose which time it will be x minutes before or after a certain time.	Calculate basic intervals of time.	
Order Time 1 to 9	Put these measures of time from smallest amount of time to largest amount of time.	Order different measures of time based on their length.	

3. Temperature

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Temperature & You	Students answer basic real world questions relating to the concepts of cold / colder / warm / warmest.	Relate concepts of cold, colder, warm and warmest to familiar day to day events.	CCSS.Math.Content.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
Hotter or Colder	Compare two thermometers and determine whether it got colder or hotter.	Compare thermometers and determine whether it is getting colder or hotter.	
Hear & Match	Click on the thermometer that matches the word you hear - coldest or warmest.		
Choose the Temperature	Read the thermometer and click on the matching temperature.	Read a thermometer in ten degree increments.	
Pick the Activity	Click on the activity that best matches the thermometer that you see.		
Do You See What You Hear?	Does the temperature on the thermometer match the temperature that you hear?		
Type the Temperature	Type the temperature for each thermometer that you see.		
Is It Freezing?	Does this thermometer show a temperature that is freezing?	Understand the concept of freezing.	
Order the Thermometers	Click on the thermometer in order from the hottest temperatures to the coldest temperatures.	Order different thermometers based on their temperatures.	
Getting Warmer, Getting Colder	Add or subtract the number of degrees you hear, then click on the new temperature.	Calculate a change in temperature.	

4. Length & Height

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Which Would You Use?	Which unit would you use to measure various real world objects?	Select an appropriate standard unit of measure to measure the length and height of various real world objects.	CCSS.Math.Content.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.
Match the Height	Press the spacebar when you see the correct unit to measure the length of each object.		
Order the Height	Click on the objects in order from the shortest to the tallest.	Compare and order the heights and lengths of various real world objects.	CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
Click the Tallest	Click on the tallest object.		
Order the Length	Click on the objects in order from the longest to the shortest.		
Measure the Length	Type the correct length of each object by using the ruler.	Use a ruler to measure the length and height of various real world objects in standard units.	
Measure the Height	Type the correct height of each object by using the ruler.		
Guessing Length	Choose the correct estimate for a pictured object from a short list of estimates.	Estimate lengths using standard units.	CCSS.Math.Content.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.
Compare Unit Lengths	Measure the object in centimeters and inches.	Use a ruler to measure the length and height of various real world objects in standard units. Understand the difference between standard units.	CCSS.Math.Content.2.MD.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
How Much Longer?	Measure two objects and compare their lengths in standard units.	Select an appropriate standard unit of measure to measure the length and height of various real world objects. Compare lengths of two objects.	CCSS.Math.Content.2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

5. Area, Perimeter & Distance

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Area & Perimeter	Click on the picture that shows area or perimeter.	Understand the difference between perimeter and area.	CCSS.Math.Content.2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. CCSS.Math.Content.2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. CCSS.Math.Content.2.MD.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
What is the Area?	Count the area or number of squares covered by each red shape.	Calculate perimeter and area by using non-standard units.	
Guess the Area			
What is the Perimeter?	Count the number of units around each shape.		
Around the Outside	Click on the total perimeter of each object.	Calculate perimeter by using standard units.	
Count the Distance	Following the red line, how many units of distance are between point A and point B?	Measure distance using non-standard units.	
Find the Shortest	What is the shortest distance between points A and B?		
Football Toss	For each picture, type the answer for how far the quarterback threw the football.	Measure distance using standard units in increments of 10.	

6. Mass, Capacity & Volume

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Which Holds More?	Click on the object that holds the most amount of liquid.	Estimate and order the capacities of various real world objects.	CCSS.Math.Content.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
Order the Capacity	Click on the pictures in order from which holds the least amount to which holds the most amount.		
Lightest and Heaviest	Click on the object that is the heaviest or lightest.	Estimate and order the weights of various real world objects.	
Order the Weight	Click on the pictures from the heaviest to the lightest.		
Click the Heaviest	Click on the object that is the heaviest.		
Match the Weight	Press the spacebar when you see the correct unit to measure the weight of each object.	Select an appropriate standard unit of measure to measure the weight of various real world objects.	
Biggest Volume	Click on the object that holds the most amount of liquid.	Estimate and order the volumes of various real world objects.	

7. Measurement Challenge Activities

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Click the Biggest	Click on the largest unit of measure for each set.	Understand the relationships between units of measure and compare different measurements.	CCSS.Math.Content.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
Equal Measurements	Match the measurements in the left column with the equal measurement in the right column.		
Symbols	Click on the symbol in the right column that matches the unit of measurement in the left column.	Understand the symbols of various units of measure.	
Find the Unit I	Click in the correct column that matches the unit of measure for each word that you hear.	Understand which unit of measure is used to measure either weight, time, capacity, length, height or volume.	
Find the Unit II	Click on the correct type of measurement (weight, time, volume) that matches the unit word you hear.		
Which Unit Would You Use?	Click on the best units of measurement for each picture.	Choose the most appropriate unit of measure for various real world situations.	
Match the Units	Press the spacebar when you see the measurement that is equal to the measurement shown on the left.		

4. GEOMETRY

Geometry - 1 - 2D Naming

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
What Shape is This? (2 activities)	Click on the name of the shape that you see.	Identify 2D shapes.	CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Pick the Shape (2 activities)	Click on the shape that you hear.		
Shape Matching	Match the shape with its name.		
Shape Hunt	Find and click on all the shapes that match the shape that you hear.		
Shape Counting	Count the number of shapes that match the shape that you hear and press enter.		

Geometry - 2 - 3D Naming

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
What Figure is This? (2 activities)	Click on the name of the figure that you hear.	Identify 3D figures.	CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Pick the Figure (2 activities)	Click on the figure that matches the figure that you hear.		
Figure Matching	Click to match each figure with its name.		
Figure Hunt	Find and click on all the figures that match the shape that you hear.		
Figure Counting (2 activities)	Count the number of figures that match the figure that you hear and press enter.		

Geometry - 3 - 2D Properties

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Bag of Shapes	Count and type the number of each shape in the bag.	Identify 2D shapes.	CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Count the Sides	Count and type the number of sides that the shape you see has.	Count the number of sides of 2D shapes.	
How Many Sides?	Click on the number of sides for the name of each shape.	Recognize the number of sides that a printed shape name has.	
Which Shape has the Most Sides?	Click on the shape that has the most sides.	Compare 2D shapes based on the number of sides.	
Which Shape has the Most Sides? II	Which shape has the most sides?		
How Many Vertices? I	Click on the number of vertices that the shape you see has.	Count the number of vertices of 2D shapes.	
How Many Vertices? II	Click on the number of vertices for the name of each shape.	Recognize the number of vertices that a printed shape name has.	
Which Shape has the Most Vertices?	Which shape has the most vertices?	Compare 2D shapes based on their number of vertices.	

Geometry - 4 - 3D Properties

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Bag of Figures	Count and type the number of figures for each question.	Identify 3D figures.	CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Riddles	Click on the figure that answers each riddle.	Recognize the properties of 3D figures.	

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Construction	Click on the correct set of shapes to build each 3D figure.	Recognize that 3D figures are made up of 2D shapes and shapes needed to build a given figure.	CCSS.Math.Content.2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

Geometry - 5 - Symmetry

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Is it Symmetrical?	Is each shape divided symmetrically?	Recognize whether a shape is divide symmetrically or not.	CCSS.Math.Content.2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.
Is it Symmetrical? 2	Is this shape symmetrical?		
Make it Symmetrical	Click on the spot on each picture where you can put a line so that the picture will be divided symmetrically. You can rotate the line by clicking on the rotate button.	Determine where a line of symmetry should lie on a given picture.	
Symmetrical Letters	Click on the spot on each letter where you can put a line of symmetry.		
Find the Matching Half	Look at the object on the top and find its other half from the objects below.	Determine whether given halves of an object are symmetrical or not.	
Find the Unsymmetrical Shape	Look at these three objects and click on the shape that is not symmetrical.	Determine whether given objects are symmetrical or unsymmetrical.	
How Many Lines of Symmetry?	How many lines of symmetry does this shape have?	Count how many lines of symmetry an object has.	

Geometry - 6 - Flips (Reflections), Turns, Slides

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Flip (Reflection), Turn or Slide?	Does this picture show a flip, a turn or a slide?	Determine whether a given transformation is a flip, a turn or a slide.	CCSS.Math.Content.8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
Pick the Transformation	Click on the picture that demonstrates the transformation that you hear.		
Pick the Transformation II			
Pick the Transformation III			
Shape Transformation	Look at the shape transformation and click on whether it is a flip, a slide or a turn.		

Geometry - 7 - Directions

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Follow the Map	Read and follow the directions and then then tell me where you end up.	Follow directions on a map - up, down, left, right.	CCSS.Math.Content.K.G.A.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
Follow the Compass		Follow directions on a map - north, south, east, west.	
Moving on the Grid	Click on the direction you would have to travel to travel to get between these objects.	Determine where one object lies in relation to another - up, down, left or right.	
Moving on the Grid 2	Look at the grid and tell me how many squares are between these two objects.	Determine the distance between two squares on a grid.	
Moving on the Grid 3			
Moving on the Grid 4	Read the instructions and click on the object that you will land on.	Follow directions on a grid - up, down, left, right.	

5. DATA MANAGEMENT

Data Management - 1.1 - Counting

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Flowers	How many flowers are: red / yellow / purple / green in the middle / not green in the middle / in total?	Count objects based on two attributes.	CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems1 using information presented in a bar graph.
Athletes	How many athletes are: playing basketball / holding baseball bats / boys / girls / black hair / brown hair / in total / in wheelchairs /	Count objects based on one attribute.	
Food Groups	Click on the group with the stated combination of pizza slices, hot dogs and drinks.	Count groups of objects based on one attribute.	
People Eating	How many people are: eating sandwiches / eating pizza / wearing hats & eating sandwiches / not wearing hats & not eating, etc.	Count objects based on two attributes.	
Coins	How many pennies / 5 cent coins / 10 cent coins / 25 cent coins / total coins are there?	Count and compare objects based on one attribute.	

Data Management - 1.2 - Surveying

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Surveying Questions	Tells students what the goal of the question is (yes or no, graphing data, etc), and asks them to pick the best question from a list.	Determine good questions for generating a finite number of responses.	CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems1 using information presented in a bar graph.
Good and Bad Questions	Are these good or bad survey questions for displaying the data on a bar graph?		
Rock Stars	Look at the picture of rock stars. How many are: boys / girls / wearing jackets / dancing / not wearing hats, etc.	Gather data from pictoral evidence based on one attribute.	
Fire Fighters	Look at the picture of fire fighters. How many are: wearing red / wearing hats / in total / holding axes, etc.		

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
The Weather in June	Look at this weather calendar. How many: cloudy / sunny / rainy days were there in June? Was it sunny on more days than it rained? / Was it cloudy on more days than it was sunny? / Was it sunny on Wed June 10? / Did it rain on a Saturday in June? etc.	Collect and count data from a calendar.	

Data Management - 1.3 - Sorting

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Attributes	Look at four groups of objects and choose the two attributes that were used to sort them.	Identify two attributes that were used to sort presorted groups.	CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems1 using information presented in a bar graph.
What Do They Have in Common?	Look at the group of shapes above - what do they have in common?		
Shapes	Look at these shapes. You must sort the shapes into 4 groups based on their attributes.	Use two attributes to sort objects.	
Fish	Look at the fish. You must sort the fish into 4 groups based on their attributes.		
Cars	Look at the cars. You must sort the cars into 4 groups based on their attributes.		
Letters	Look at the letters. You must sort the letters into 4 groups based on their attributes.		

Data Management - 1.4 - Graphing

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Basketball Season	Answer various questions about reading and comparing data from a given pictograph.	Read pictographs with one-to-one correspondence.	CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems1 using information presented in a bar graph.
Class Savings			
Halloween	Answer various questions about reading and comparing data from a given bar graph.	Read bar graphs with one-to-one correspondence.	
Birthdays			
Make a Graph!	Your teacher does a survey of the class to figure out the most popular fruit. As you see the results of the survey, fill in the blank squares of the graph by clicking on them.	Construct a bar graph based on one-to-one correspondence.	
Favorite Color	Answer various questions about reading and comparing data from a given pie chart.	Read pie charts with one-to-one correspondence.	
Class Tests	Answer various questions about reading and comparing data from a given line graph.	Read line graphs with one-to-one correspondence.	

6. PROBABILITY

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Books	Various questions about the probability of picking books of various colors from a group of books.	Count and group given pictoral data as a basis for probability experiments. Predict the probability that an event will occur.	CCSS.Math.Content.3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Crayons	Various questions about the probability of picking crayons of various colors from a group of crayons.		
Bag of Candy	Various questions about the probability of picking candies of various colors from a bag of candy.		
Group of People	Various questions about the probability of picking a particular person from a group of people.		
Fun and Games	Various probability questions based around coin flips, picking cards, etc.		
Weather	Various probability questions based around future weather.		
Probability Numbers	Determine probability of various probability experiments - rolling die, guessing numbers, picking things at random.	Express simple probability calculations in numerical form.	

7. PROBLEM SOLVING

1. Data Management & Probability

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Venn Diagram	Various questions about where individual entries lie and about total numbers for a Venn diagram that shows who in the class play hockey and/or baseball.	Read Venn Diagrams and determine where given pieces of data belong.	CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems1 using information presented in a bar graph.
Numbers Into Venn Diagram	Students are required to move various numbers into an empty Venn diagram that shows even numbers & multiples of 5.		

2. Geometry

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Geometry Puzzles	Various questions involving counting the number of smaller 2D and 3D geometric shapes within given 2D and 3D shapes.	Understand that 2D shapes and 3D figures can be divided into smaller shapes and figures.	CCSS.Math.Content.2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
Shape Riddles	Various riddles based on the properties of 2D geometric shapes.	Understand basic properties of 2D shapes.	CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Geometry Riddles	Various riddles based on the properties of 2D and 3D geometric shapes and figures.	Understand basic properties of 2D shapes. Understand basic properties of 3D figures.	
Translation Riddles	Various real-world word problems that describe reflections, slides and turns.	Determine whether a given transformation is a flip, a turn or a slide. Determine the degree of a given turn - quarter, half, three quarters.	CCSS.Math.Content.8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

3. Measurement

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Homework	If it takes you *n* minutes do do your homework, type what time it would be if you started at *y:xz* am?	Add an amount of time to a given amount of time to the nearest five minutes.	CCSS.Math.Content.2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
Money Problems	Students have to solve various real-world questions based on the addition and subtraction of money.	Count values of money and make change for up to ten dollars.	CCSS.Math.Content.2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?
Perimeter Problems	Students have to solve various real-world perimeter problems.	Calculate perimeter in standard units.	CCSS.Math.Content.2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
Area Pairs	Students have to identify sets of shape pairs that have the same area from a given group of varied sized shapes.	Calculate area in non-standard units.	
Area Problems	Students have to solve various real-world area problems.	Calculate area in standard units.	
Tara's Tuesday Schedule	Given a schedule of Tara's day, students have to answer various questions about the amount of time she does various things.	Add an amount of time to a given amount of time to the nearest five minutes.	CCSS.Math.Content.2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

4. Numeration

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
What's Not Needed?	From a given real-world scenario, students have to determine which piece of information is not needed to solve the problem.	Find irrelevant information from a given word problem.	CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
2 Digit Add & Subtract Problems	Various real-world 2 digit addition and subtraction problems.	2 digit addition and subtraction.	
2 Digit Add & Subtract Problems with Regrouping	Various real-world 2 digit addition and subtraction problems with regrouping	2 digit addition and subtraction with regrouping.	
3 Digit Add & Subtract Problems	Various real-world 3 digit addition and subtraction problems.	3 digit addition and subtraction.	
Multiplication Problems	Various real-world multiplication problems.	Multiplication facts to 49.	CCSS.Math.Content.3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
Division Problems	Various real-world division problems.	Division facts to 49.	
Fraction Problems	Various real-world fraction problems.	Understand basic addition of fractions with like denominators.	CCSS.Math.Content.2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. CCSS.Math.Content.3.NF.A.1 Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.
Games Day	Various questions about the number of 5 point and 1 point tickets that students have earned at the annual school games day.	2 digit addition and subtraction.	CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
Mixed Problems	Various real-world problems which involve more than two steps of addition, subtraction, multiplication and division.	Use combinations of addition, subtraction, multiplication and division to solve problems.	
Number-Word Match	Students have to match written numbers with their numerical equivalent.	Read and print number words 1 to 1000.	

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Sudoku	Students have to solve simple examples of this popular number game.	Solve simple number puzzles.	

5. Patterning & Algebra

ACTIVITY NAME	INSTRUCTION	SKILLS	COMMON CORE STANDARDS
Family Vacations	Look at the graphs showing the distance travelled by different families and fill in the missing numbers from the patterns.	Fill in a missing entry in a numerical pattern.	CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
Finish the Quilt	Look at the picture of an unfinished quilt and determine which color individual sections will be when the quilt is finished, if the pattern is maintained.	Fill in a missing entry in a geometric pattern.	
Height of the Family	Look at the graph of how each member of the family is growing. If they keep growing at the same rates, fill in the missing values.	Fill in a missing entry in a numerical pattern.	
Tomato Plants	Students are given a chart and the growth rate of a tomato plant is described. They have to fill in the missing values on the chart based on this data.	Fill in a missing entry in a numerical pattern.	
Pattern Problems	Various real-world patterning problems.	Understand real world patterning problems and determine the proper responses.	
Pattern Problems 2			