Kindergarten (TEKS)

Supplemental Mathematics Tasks

This resource is a repository of mathematics tasks aligned to grade level standards compiled by Shannon Olson. Shannon did not write the tasks, but curated them from a variety of open educational resources.

“Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning and problem solving and allow multiple entry points and varied solution strategies” (National Council of Teachers of Mathematics, 2014). For more information on facilitating tasks, see Notes on Task Facilitation in the appendix of this document.

It is not recommended to use these resources as a primary curriculum, but rather to use them as supplemental tasks to enhance a coherent set of materials. For more information see Notes on Curriculum in the appendix of this document.

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Appendix

Representation and Comparison of Whole Numbers

K.2 Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system.

Standards	Task	Task Description
K.2(A)	Choral Counting	The teacher will need a 100 chart or large number line and a pointer. As a whole group, have students chant the counting sequence starting with one to thirty, using the pointer to follow the number sequence. Over time, increase the range to one to fifty and then one to one hundred. Eventually have a student take over the job of pointing out the numbers in the sequence. Highlight the multiples of ten using a marker or a colored screen and have students chant the counting sequence by 10s. This should be done daily.
K.2(A)	Counting by Tens	This activity can be done several times a day as it is quick and requires no materials. The objective of this lesson is to gain automaticity counting to 100 and to establish the importance of multiples of ten. The final goal of this lesson is for students to be able to count by tens and articulate the term for this.
K.2(A)	Counting Circles	Select a counting sequence to be practiced with no more than 8-10 numbers in the sequence. Have the students start counting around the circle one by one until the last number in the sequence is reached.
K.2(A)	How Many Ducklings	Students watch a video with ducklings and determine how many there are?

	Are There?	
K.2(A) K.2(B)	Number Puzzles 1-20	Puzzles consist of images cut into strips. The teacher cuts out the strips and provides velcro for students to put the puzzles in order as they recognize numerals and count.
K.2(A) K.2(B)	Counting Cards	Students choose a counting card with prompts for when to start and stop counting. They use a hundreds chart to help them count.
K.2(A)	Count by Tens	Students choose counting by ten numbers and sentence frames to describe counting by ten sequences.
K.2(A)	Pick a Number, Counting On	The teacher puts multiple numbers in a hat or on sticks from the known counting sequence. S/he randomly picks one number and asks the class to count on ten numbers from that number. The class does this chorally.
K.2(A)	Start-Stop Counting	The teacher selects a range of the number sequence to practice. Start with the teacher walking around the outside of the circle while counting aloud starting at the beginning of the selected counting sequence. After a few moments the teacher taps a student on the head and sits in the student's spot. The student then gets up from the circle and continues the counting at the point that the teacher left off while walking around the outside of the circle.
K.2(A)	Number After Bingo 1-15	Students play a bingo game by pulling cards 1-15 and marking the number after the number called on their bingo card.
K.2(A)	"One More" Concentration	This game is a version of the traditional memory or concentration game in which students match a number 1-9 with a number (2-10(that is one more.
K.2(A)	Cross the Decade	Students draw two-digit number cards with a 9 or 0 in the ones place and match the "counting by tens number" that comes after the number

		ending in a 9.
K.2(A)-2	Assessing Counting Sequences Part I	This activity is designed to determine the appropriate instructional level for a student in a one-on-one interaction with the teacher. The teacher needs paper and pencil to record the student's reactions to counting prompts.
K.2(A)	Assessing Counting Sequences Part II	This activity is designed to determine the appropriate instructional level for a student in a one-on-one interaction with the teacher. The teacher needs paper and pencil to record the student's reactions to prompts to share the number after a given number.
K.2(A-B)	Number Line Up	Students are given number cards 1-(the number of students in the class) and are directed to get in a line with the correct sequence of numbers.
K.2(A-B)	Caterpillar Counting	Directions: Complete the following number sequences and create spots on the caterpillar's body that represents the number above it.
K.2(A-B)	Nearby Numbers	Students place number cards on a grid to show the sequence of numbers.
K.2(B)	Rainbow Number Line	Given a number line on a sentence strip, students trace the numerals with various colors to support both recognizing and identifying numbers.
K.2(B)	Race to the Top	The teacher will need a sheet of 1 inch graph paper turned sideways (horizontally) with the numbers 0-9 written one in each box in the bottom row along the 11" side of the paper (one copy per student) and a 10 sided number die (0-9) or a 0-9 spinner. The student rolls a number using the die or spinner and writes that number in the next box of the corresponding column. Students start at the bottom of the page and work to the top.

K.2(B)	Dice Addition 1	This task supports students in correctly writing numbers. Because students have to trace the number instead of coloring in a bubble with the number in it or circling the correct number, they gain handwriting practice as well as counting and addition practice.
K.2(B) K.2(D)	Bags of Stuff	The purpose of this task is to give students an opportunity to count real objects and write numbers. This activity can become a daily 10 minute routine, with the students counting as many bags of "stuff" as they can in that time period. Students can also work together in pairs. Students should focus on the numerals 1-10 before continuing with numerals 11-20. A number line or chart could be made available for those students who need support.
K.2(B)	Find The Numbers 0-5 or 5-10	The teacher will need to create 2-3 sets of six number cards (0,1,2,3,4,5) and a matching number die (0,1,2,3,4,5) for each set of students. Materials can be made from index cards and blank wooden cubes. Each student places a set of the number cards 0-5 face up, in sequence, in front of him or herself. The students will take turns rolling the 0-5 die. After rolling he or she needs to find the matching number in the row of cards, say the number name out loud to the other student(s) and turn it face down.
K.2(B)	Teen Go Fish	Given a deck of cards with four of each number (11-19) students play the game of Go Fish finding matching pairs of numbers.
K.2(B)	Number TIC TAC TOE	The teacher will need a 3x3 grid with the numerals 1-9 arranged randomly (one in each box in the grid) and 2 different colored crayons, one for each child. The students take turns reading the numbers aloud and confirming the number names with each other as they play tic-tac-toe.
K.2(B)	Pattern Block Count	Students place pattern blocks on templates, count the pattern blocks, and write the number counted.

K.2(B)	My Counting Book	Students make a book in which they write the number represented by blocks and may draw another picture to represent the quantity.
K.2(B)	Missing Numbers 1-10	Students are provided with a ten-frame with some numerals filled in and others missing. They write in the missing numbers.
K.2(B)	Assessing Reading Numbers	One-on-one with a student, the teacher shows the numbers 1–10, one number at a time, in random order. The teacher asks, "what number is this?" If a student is not able to identify all the numbers 1–10, there is no need to continue with the teen numbers; the area for instruction is identified.
K.2(B)	Assessing Sequencing Numbers	Each student is given numeral cards 1–10 and 11–20. This task can be used with a single student or a small group of students. The teacher asks the student(s) to put the numbers in order from the smallest number to the biggest number or in the order they would say them if they were counting. Next, students read the numbers in their arranged order.
K.2(B)	Assessing Writing Numbers	In a small group or whole group setting, give each student a piece of paper. It may be useful to use 1 inch graph paper and have the student write each number in a different box to help with spacing. Ask students to write the number that is spoken, and then say, "Write (number name)". Give the numbers from 0-10 in random order.

Standards	Task	Task Description
K.2(C)	Counting Mat	The teacher gives students the counting mat and many small objects to count with. Some students will automatically read the numbers and assemble the correct number of objects then match them to the dots on the counting mat to verify they counted correctly. Other students who need more scaffolding will match each object to a dot.
K.2(C)	The Napping House Order the Book	The teacher reads *The Napping House* to the class, stopping each time a person or animal gets into the bed so the students can add a counter to the ten-frame. After each page, stop to ask the children how many are sleeping in the bed after each counter is added to the ten-frame.
K.2(C)	Five Frame Flash	Partner A has a five frame with colored dots that they flash to Partner B. Partner B uses colored chips and a blank five frame to fill in the same quantity.
K.2(C)	Five Frame Match	Students roll a number cube (die) and select the five frame that matches the number rolled.
K.2(C)	Five Frame Concentration	Students are provided cards with five frames or numerals. They pick up two cards at a time trying to find a match between the counters on the five frame and the numerals.
K.2(C)	Playdough Numbers	Students select cards that have the numerals 1-10 with blank ten frames below. They use playdough to make the shape of the number as well as balls of playdough to fill in the ten frame to match the quantity represented by the numeral.
K.2(D)	Finding Equal Groups	The purpose of this task is for students to build fluency in counting. The teacher will assemble a variety of groups of objects in a few different

		forms. The teacher will give students a timer, and the students will race against the clock to sort the groups of objects into three separate groups (grouped by quantity) by the time the timer is finished. This can be played individually or in pairs.
K.2(D) K.2(B)	Picture, Numeral, Word Cards	Students match pictures, numerals, and words for 0-10.
K.2(D) K.2(B)	Domino Jigsaws	Students match numerals to domino patterns for 0-10.
K.2(C-D)	Dot Card Counting	Students are provided an image with dots. Directions: How can we figure out how many dots there are below?
K.2(C-D)	Counting Cup	Students count a collection of objects in a cup, , recreate the quantity with other objects, and then draw a picture of the counters and write the number.
K.2(C-D)	Color Week	The purpose of this task is to help students understand the connection between Representation and Comparison of Whole Numbers. Thus, oral counting and recording the number in digit form are the most important aspects of this activity as the class counts the number of students wearing various colors.
K.2(C-D)	Counting Overview	This standard asks students to count with automaticity and meaning, and to be able to record their findings. Lastly, students need to be able to compare two numbers. The most engaging way to practice counting with students is to have them count meaningful things in their lives

K.2(C-D)	Number Rods	The students count the number of unifix cubes then match the rod up to the correct number of the number line. Students can work in pairs or on their own.
K.2(B-E)	More and Less Handfuls	Each student grabs two handfuls of counters. The student combines his/her handfuls into one collection and then counts them. The student then draws and records the quantity on a student-recording sheet. Student partners then complete the sentence frame at the bottom of the page together, stating how many each person had and if they have more or less than their partner.
K.2(A-D)	The Candyman	3 Act Task in which students explore counting and joining sets.
K.2(C-D)	Counting Squares	3 Act Task in which students estimate and count yellow and red square tiles in a pattern.
K.2(C-D)	Dotty	3 Act Task in which students count a pattern of growing dots.
K.2(C-D)	Peas in a Pod	3 Act Task in which students count the amount of peas in three different pods.
K.2(D)	How Many Soda Combos Are There on a Coke Freestyle?	Students apply counting and adding strategies to determine soda combinations.

Standards	Task	Task Description
K.2(E-G)	Which number is greater? Which number is less? How do you know?	The teacher will show the class two groups of objects or drawings of objects. The purpose of this task is for students to explain how they know one quantity is greater or less than another quantity.
K.2(E-G)	Biggest Number Wins	Students play in pairs. Each student has a deck of 44 cards, 4 identical cards for each of the numerals 0–10. Each card shows the numeral and a picture representing the corresponding quantity. Each student flips over one card. Together, the students decide which of the two numbers shown has the greater value. The student with the card with the greatest number keeps both cards.
K.2(E-G)	Who Has More?	Partners each roll a number cube (die) and count out a set of counters to represent the number rolled. They compare who has more counters.
K.2(E-G)	Making Sets	Students roll a number cube (die) and count out a set of counters to represent the number rolled. They then make another set of counters that is greater than the first set created.
K.2(C-E)	Ten Frame Challenge	Directions: I have a horizontal ten-frame that has some counters on it. One row of the frame is full and one is not. What is the largest number I could make? What is the smallest number I could make?
K.2(G-H)	Guess the Marbles in the Bag	The teacher secretly places between 1 and 10 marbles in a paper bag, then shows the bag to the class. After shaking it enough times for

		students to hear the marbles inside, and students guess how many marbles are in the bag. The teacher writes the guesses on the board. Afterwards the contents of the bag are revealed and counted out. The teacher writes the number representing the total on the board, and the students then help sort their guesses into less than, greater than, or equal to the number of marbles in the bag.
K.2(G-H)	My Secret Number	Students have cards with numerals 1-10. They select a card and keep it secret from their partner while the partner tries to guess the number and is given clues if the secret number is more or less than other numbers.
K.2(G-H)	Less Than	Students have cards with numerals 1-10. They each put down a card and the partner with the number that is less than the other takes both cards.
K.2(B)-7	More and Less Handfuls	Each student grabs two handfuls of counters. The student combines his/her handfuls into one collection and then counts them. The student then draws and records the quantity on a student-recording sheet. Student partners then complete the sentence frame at the bottom of the page together, stating how many each person had and if they have more or less than their partner.
K.2(I)	Bobbie Bear's Buttons	Bobbie Bear has a box of red and blue buttons. She takes 4 buttons out of the box. How many of each color button might she have? After students answer the question, ask them to draw pictures and write the number for each color. The purpose of this task is for students to find different pairs of numbers that sum to 4.
K.2(I)	Christina's Candies	This task is meant to be presented as a sequence of questions posed by the teacher to

		the students. Christina has 7 candies. Some of them are chocolate, and some of them are lemon. If she has ___ chocolate candies, how many lemon candies does she have if the rest are lemon?
K.2(I)	Make 9	Make 9 in as many ways as you can by adding two numbers between 0 and 9. Because of the limited reading skills of kindergarten students, this task should be introduced by the teacher, followed by the students carrying out the activity. Teachers should have counters on hand for students to use.
K.2(I)	Pick Two	For each set of numbers below, pick two numbers that add to make six. Write an equation that shows that those two numbers add to make 6.
K.2(I)	Decomposing Numbers Less Than Or Equal to 10	Directions: Add spots to each dog to make the total number of spots equal 10.
K.2(I)	Sum of 5	Directions: I rolled 2 dice and when I counted the pips (dots), there were 5 altogether. What could I have rolled on the dice? I rolled again and got 5 again, but I didn't get the same numbers as before. What could my new roll be?
K.2(I)	Domino Friends of Ten	Directions: I picked 3 dominoes out of a bag and they all had exactly 10 pips, but the same number was not on both sides of any of the dominoes. Which dominoes could I have picked? Is there more than one answer?
K.2(I)	Hide the Cubes	Partners take turns breaking a stick of 10 snap cubes and hiding one part behind their back while the other partner guesses how many are missing.

K.2(I)	Five Little Ducks	Students place some ducks in the pond and some ducks on the grass. They use pictures, numbers, and words to show different ways to arrange the ducks.
K.2(I)	Domino Addition	Students choose a numeral card and find dominoes with that many dots. They write addition equations to represent the amount of dots on each side of the domino and the total amount of dots.
K.2(I)	Addition Bag	Students are provided a sandwich bag with a line drawn down the center and five counters in the bag. They put some counters on each side of the line and then represent how many counters in all.
K.2(I) K.2(I)	My Book of Five Shake and Spill (version without making a book)	Students are given double sided counters and matching markers. Students take five counters in their cupped hands, shake them around, pour them onto the desk. Next, they count how many counters are yellow and how many are red. Students then record the numbers in their book and write a corresponding equation.
K.2(I)	Towers of Ten	Students make towers of ten with two different color cubes in as many ways as they can. They write addition equations to match the colors.
K.2(I)	Make Ten on the Ten Frame	Students choose numeral cards (1-10) and place that amount of counters using one color on the ten frame. They use another color to fill in the rest of the frame and may draw pictures or equations to represent the amounts added.
K.2(I)	Many Ways to Do Addition 1	The teacher writes a simple addition (or subtraction) problem on the white board. Students then solve the problem using whichever strategy they choose.The focus in developing fluency should be more than the internalization of facts. Students should be

		supported in the natural development of number sense so that students are able to solve computations flexibly and efficiently using their understanding of relationships between numbers
K.2(I)	Fast Five	Students are provided cards with numerals or dots representing 0-5. They find pairs of cards that equal 5.
K.2(I)	Plus One	Students are provided a board with random numbers 2-7. They roll a number cube (die) and place a counter on the number rolled plus one. They say and write the addition equation.
K.2(I)	Adding One-Digit Numbers (< 5)	Directions: Using the digits 1 to 5, at most one time each per number sentence, fill in the boxes to create two or more true number sentences.
K.2(I)	Adding One-Digit Numbers (< 5) 2	Directions: Using the digits 1 to 5, at most one time each, fill in the boxes to create a true number sentences with the greatest possible sum.

Addition and Subtraction of Whole Numbers

K.3 Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems.

Standards	Task	Task Description
K.3(A)	Ten Frame Addition	Students are provided a ten frame and number cards or a die (0-5). Player 1 flips a card or rolls the die. They place that many counters on the 10-frame. Player 2 flips a card or rolls the die. They place that many more counters on the 10-frame next to the counters already on the ten frame. The students count the total together.
K.3(A) K.2(I)	Towers of Five	Students make towers of five with two different color cubes in as many ways as they can. They write addition number sentences to match the colors.
K.3(A) K.2(I)	Make Five on the Five Frame (or Ten on the Ten Frame)	Students choose numeral cards (1-5 or 1-10) and place that amount of counters using one color on the five/ten frame. They use another color to fill in the rest of the frame and may draw pictures or equations to represent the amounts added.
K.3B-C)	Word Problems: Add To Result Unknown	Provide students with word problems in which they add to with a result unknown. If students are able to read they may draw cards with a partner. It would be great to use these problems with small groups or the whole class in which students use objects, drawings, or equations to solve on their own and then with a partner.

K.3(B-C)	What's Missing?	Show the student 6 counters (small, flat objects). Ask the student to close his/her eyes. Hide some of the counters under a sheet of heavy paper. When the student opens his/her eyes, s/he determines how many were hidden based on the number of counters still showing.
K.3(B-C)	Ten Flashing Fireflies Order the Book	Begin with 10 counters off the 10 frame mat with the yellow side facing up to represent the fireflies in the sky. As you read the story, the students should move a yellow counter to the ten frame to represent the firefly in the jar. Stop several times during the story to allow the students time to talk with their partner about how many fireflies are in their jar and how many are in the sky.
K.3(B-C)	Balancing Numbers	3 Act Task in which students explore number combinations through balancing patterns blocks on a balance scale.
K.3(B-C) K.2(B)	Dice Addition 1	This task supports students in correctly writing numbers. Because students have to trace the number instead of coloring in a bubble with the number in it or circling the correct number, they gain handwriting practice as well as counting and addition practice.
K.3(A-C)	Dice Addition 2	The students roll the dice. They record the numbers on the dice, one as the first addend and the other as the second addend in the equation, with numerals or dot patterns from the dice. They count all the dots and record the total in the equation.
K.3(B-C)	Adding and Subtracting Within 10	Directions: Using the digits 1 to 9 at most one time each, place a digit in each box to make a true statement.
K.3(A-C)	Humpty Dumpty	3 Act Task in which students watch a video of an egg carton falling. They estimate and then solve for the number of eggs left unbroken.

K.3(A-C)	Popping Balloons	3 Act Task in which students watch a video of balloons being popped. They estimate and then solve for the number of balloons left unpopped.

Geometry

K.6 Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties.

Standards	Task	Task Description
K.6(A)	Describing Shapes	Directions: Using the following picture, complete the following sentences (using the phrases: above, below, beside, in front of, behind, and next to.)
K.6(A)	Pattern Block Barrier Game	Students play a game in which they place a pattern block on a template and describe to their partner how to place the block on the grid to match.
K.6(A)	The Shape of Things Literature Link Order the Book	Students listen to the story *The Shape of Things*, choose a shape, and make a picture from the shape.
K.6(A)	Changes, Changes Literature Link	Students listen to the story *Changes, Changes* and build something using 10 blocks.

	Order the Book	
K.6(A)	What's in the Bag?	Students pull pattern blocks out of a bag, use a mat to keep track of what they have pulled out, and discuss which shapes they pulled the most of.
K.6(A)	Identifying Shapes	Directions: Using the digits 1 to 6, at most once each time, fill in boxes and identify a shape in the blank to make as many of the following statements true as you can.
K.6(A)	Shape Hunt Part 1	The teacher scatters 6 shapes cut out of construction paper attached to whatever appropriate surfaces are nearby. The shapes should be clearly numbered. Students go out to the play area with a blank paper with 6 empty slots. When the student finds a shape they should copy it to their own paper in the appropriate spot.
K.6(A)	Shape Hunt Part 2	Students go out to the play area with a blank paper with 6 empty slots (same as the paper used for Shape Hunt Part 1). When the student finds a shape they can copy it onto their paper and attempt to label it. The main difference between this task and part 1 is that students are now given the task of finding and identifying real-world shapes in their environment.
K.6(A)	Shape Sequence Search	Students are provided a grid with shapes and they find the row or column that contains each sequence read by the teacher.

Standards	Task	Task Description
K.6(E)	Alike or Different Game	Students in pairs take turns drawing two shape cards. They should name something that is the ALIKE or DIFFERENT between the two cards.
K.6(E)	Analyzing Shapes	Directions: Using the diagram, fill in the blanks with the names of the shapes to make each statement true.
K.6(E)	Geometry Sentence Frames: Describing 2D Shapes	Sentence frames provide opportunities for students to read sight words in context while building vocabulary related to the names and properties of two-dimensional shapes.
K.6(E)	My 3D Shapes Book	Students create a book about 3D shapes by coloring pictures and completing sentence frames.
K.6(F)	Playdough Shapes	Students make shapes with playdough and use sentence frames to describe them.
K.6(F)	Shapes on the Geoboard	Students use rubber bands to make shapes on a geoboard, draw on geoboard paper, and describe the shapes.
K.6(F)	Mouse Shapes Literature Link Order the Book	Students listen to the story *Mouse Shapes* and put together different shapes to make their own creature.

Measurement

K.7 Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes.

Standards	Task	Task Description
K.7(A)	What is Heavy? (Book template)	Students create a book about "What is Heavy?" by drawing pictures and completing sentence frames.
K.7(A)	What is Long? (Book template)	Students create a book about "What is Long?" by drawing pictures and completing sentence frames.
K.7(A)	Measurement Sentence Frames: Comparing Weight	Students use cards with images and words to complete sentence frames comparing objects as heavier or lighter.
K.7(A-B)	Which is heavier?	Students will need various items to compare weights, a balance scale, and a recording sheet with four sections with enough space for a small drawing. The students work in pairs. They choose two items to compare weights. Using the balance scale, they put one item on each side of the balance scale. Then they draw the two items and circle the one that is heavier
K.7(A-B)	Which is Longer?	The purpose of this task is for students to compare two objects to determine which object is longer and which object is shorter. This task asks students to work at the most basic level of measuring for kindergarteners, comparing one object to another without the use of a measuring tool (such as unifix cubes).

K.7(B)	Which weighs more? Which weighs less?	The purpose of this task is for students to compare the weight of two objects. The students begin by choosing a block that they will use to compare with other objects. Students will then choose an item and compare its weight to their block. They then draw a picture of it under "Heavier" or "Lighter" depending which applies.
K.7(B)	Is it Longer?	Students find objects that are longer than 10 snap cubes.
K.7(B)	Comparing Towers	Students build towers of snap cubes and compare which is taller and shorter.
K.7(B)	Size Shuffle	The purpose of this task is for students to understand and practice using comparison language for height. Students find a partner and stand face-to-face. The taller student holds up the "taller" card and the shorter student holds up the "shorter" card. When the teacher calls out a student's name, they respond in a complete sentence.
K.7(B)	Longer and Shorter	The purpose of this task is for students to compare the height of two objects. This task would be good independent practice for students after they have been introduced to the idea of taller and shorter in a whole group setting
K.7(A-B)	Longer and Heavier? Shorter and Heavier?	The purpose of this task is for students to compare two objects according to different measurable attributes. Students should work on comparing objects along a single measurable attribute before tackling this task.

Data Analysis

K.8 Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information.

Standards	Task	Task Description
K.8(A-C)	Which Has More?	Students take a handful of counters, sort them by color, and tell which color has more and less.
K.8(A-C)	Sort and Count	Students sort objects on a mat by whether they are or are not given colors or big or small. They write how many numbers are in each group.
K.8(A-C)	Sort and Count I	You will need sorting cards or items, for example: colors, shapes, animals, foods, etc. Cards should be able to be sorted multiple ways. First have students look at the cards and decide two or three different ways to sort. Next each student can randomly choose a card or item. Then when all the class has one, they sort themselves into categories according to color, shape, type of animal or food they have. Then the teacher can ask questions.
K.8(A-C)	Sort and Count II	Students get a bag of small objects. Each bag should contain objects that can be sorted in multiple ways. The purpose of this task is for students to sort the same set of objects according to different attributes and to practice counting to tell the number of objects in a set
K.8(A-C)	Goodie Bags	Students are provided with 5-6 baggies of various items. Each baggie should contain one type of item in three different sizes, colors, or shapes. For example, a bag that contains 5 red buttons, 6 blue buttons, and 7 green buttons. They sort the contents of one of the baggies. After the sorting is finished, theys count each group of items and then arrange each group in order from least to most.

K.4 K.8(A-C)	Coin Sort	Students take a scoop of coins, sort the coins on a mat, draw a picture, and write numbers to show how many coins are in each group.

Appendix: Notes on Task Facilitation

What is a Math Task and How Do I Use One?

Math tasks are problems students engage in without the teacher providing direct instruction or telling the student how to solve the problem. High quality math "tasks encourage reasoning and access to … mathematics through multiple entry points, including the use of different representations and tools, and they foster the solving of problems through varied solution strategies." (National Council of Teachers of Mathematics, 2014. p. 17)

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Appendix: Notes on Curriculum

"An excellent mathematics program includes a curriculum that **develops important mathematics along coherent learning progressions and develops connections among areas of mathematical study and between mathematics and the real world."**

"A mathematics curriculum is more than a collection of activities; instead it is a **coherent sequencing of core mathematical ideas that are well articulated within and across grades** and courses. Such curricula pose problems that promote **conceptual understanding, problem solving, and reasoning and are drawn from contexts in everyday life and other subjects**."

"Appropriate use of textbooks—whether to teach from them lesson-by-lesson almost exclusively or whether to treat them as one resource among many—**depends on the quality of the textbook**, as defined above. If a textbook develops mathematical topics in a coherent manner, based on learning progressions, and features lessons that consistently support the Mathematics Teaching Practices, then teaching primarily from that textbook makes sense, and significant omissions or deviations can decrease, rather than enhance, the quality of instruction (Banilower et al. 2006). Conversely, if a textbook does not provide such support, then the only option is to treat it as one of many resources and supplement it as needed.

Structuring units—and lessons within the units—around **broad mathematical themes** or approaches, rather than lists of specific skills, creates coherence that provides students with the foundational knowledge for more robust and meaningful learning of mathematics. In particular, attention to the mathematical practices provides students with important mathematical tools that they need to navigate mathematical situations and contexts. In planning lessons, teachers should also **consider the intended standards and the developmental needs of the students**. Consequently, careful consideration should be given to appropriate ways to sequence a series of lessons. Daily lesson plans should take into account the broader perspective of what students learned in the past and where they are headed in the future, as well as the contexts that can be used to motivate students and help them understand why particular topics are important." (National Council of Teachers of Mathematics, 2014. p. 70-75)

Go to https://www.edreports.org/reports/math to see how well curriculums align to the standards and recommended practices.

References:

EdReports.org, Inc. (2022). *Explore Reports*. https://www.edreports.org/reports/math

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Appendix: Recommended Tools and Manipulatives

Kindergarten

CLICK HERE

to access a list of physical manipulatives, virtual manipulatives, and blackline masters for kindergarten

Appendix: Task References

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