

KINDERGARTEN WEEK PLAN

The following is an example of a kindergarten plan for a week focusing on the key concept of subitizing which is an important element of developing number sense. The variety of lesson types (each one hour long) provide a range of learning experiences for students. Please refer to “pedagogical design” elements in the support documents for mathematical foundations for more examples of choices when planning for mathematics instruction.

LEARNING FOCUS: SUBITIZING

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>Read Ten Black Dots by Donald Crews, stopping have students discuss the different ways the dots are arranged. Share the word “subitizing” and explain that some amounts we know right away, without having to count.</p> <p>Provide students with black circles or counters and have them choose a quantity between 3-7, Have them arrange the materials in different ways, thinking about how the arrangements help them know how many there are. Invite students to draw their own dot pictures with their arrangements.</p> <p>Have students share and compare the ways they created their dot pictures.</p>	<p>Math Routine: Quick Images with dot cards (focus on subitizing and explaining how they see the amount)</p> <p>Math Workshop: Students choose learning experiences focused on the concept of subitizing.</p> <p>-Dot Cards with a partner -<u>Number Arrangement cards</u> -TouchCounts app Teacher leads small group instruction: roll regular dice and have students call out quantity (subitizing) or count, share different ways to see the quantity of dots; on a mini-whiteboard, create a tally graph for the number of rolls for each number 1-6</p> <p>Closing circle with students share what they did, what they learned and what they want to practice next.</p>	<p>Share the video <u>Let’s Count the Moons</u> to learn how to count to 13 in <u>həŋdəmihəŋ</u>.</p> <p>Invite students to share how to count to 10 in different languages they know.</p> <p>Using materials and iPad technology, invite students to create their own counting videos in languages they know or create a series of photos of quantities to 10 in different arrangements.</p> <p>Closing circle: Invite students to share their counting video or images with a partner and have the partners compare how their images or languages are the same and different.</p>	<p>Math Routine: Quick Images with ten frames (visualizing different ways to see quantities)</p> <p>Math Workshop: Students choose learning experiences focused on the concept of subitizing.</p> <p>-Dot Cards with a partner -Ten frames with a partner -Roll and Graph math game (roll a dice, subitize or count quantity and record on a tally graph) Teacher leads small group instruction: math story with counters (fish) under a paper lily pad, lift lily pad and ask students to subitize quantity (use quantity from 1-5)</p> <p>Closing circle with students share what they did, what they learned and what they want to practice next.</p>	<p>Teach students how to count to 5 in ASL. Share signs for different numbers and have students match with their fingers/hands.</p> <p>Math Workshop: Students choose practice focused on the concept of subitizing.</p> <p>-Dot Cards with a partner -Ten frames with a partner -Dice (1-6) Games -Number Arrangement cards -TouchCounts app</p> <p>Teacher - assessment check-in with each student; dot cards</p> <p>Closing circle: Reflection and self-assessment of where students are in their ability to subitize. Hold up dot cards from 1-6 and ask students to use the ASL sign for that number if they are able to subitize that amount.</p>

GRADE ONE WEEK PLAN

The following is an example of a grade one plan for a week focusing on the key concept of decomposing which is an important element of developing number sense. The variety of lesson types (each one hour long) provide a range of learning experiences for students. Please refer to “pedagogical design” elements in the support documents for mathematical foundations for more examples of choices when planning for mathematics instruction.

LEARNING FOCUS: DECOMPOSING QUANTITIES

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>Read 12 Ways to Make 11 by Eve Merriam, stopping and recording equations to match the illustrations.</p> <p>Open Question: Choose a number between 10-20. Decompose it in as many ways as you can. Use materials, pencil/paper or a mini-whiteboard and marker to record all the different ways. Teacher encourages students to represent their thinking using concrete pictorial and symbolic forms.</p> <p>Have students share and compare the ways they composed their number with a partner. Invite students to think about what form of decomposing helped them think about their number in a new way.</p>	<p>Math Routine: Splat! (two part decomposition, algebraic thinking)</p> <p>Math Workshop: Students choose learning experiences focused on the concept of decomposing. -Splat! With felt mats and counters -Make 20 dice game with ten frames, counters and dice -Adding questions focusing on decomposing strategies Teacher leads small group instruction: visualize and decompose 12 into 2, 3, 4, and 5+ parts</p> <p>Closing circle with students share what they did, what they learned and what they want to practice next.</p>	<p>In table groups, have students discuss what they know about decomposing and how it helps us understand numbers.</p> <p>Invite students to investigate the concept of decomposing through materials. Offer: Unifix cubes, clay, Cuisenaire rods, Numicon Shapes, ten frames and counters, and drawing materials.</p> <p>Closing circle: Using an artefact or record of learning, invite students to share what materials they used and how they helped them thinking about decomposing in new ways.</p>	<p>Math Routine: Quick Images with ten frames (visualizing different ways to see quantities)</p> <p>Math Workshop: Students choose learning experiences focused on the concept of decomposing. -Splat! With felt mats and counters -Make 20 dice game with ten frames, counters and dice -Find Sums app (six iPads) using a 20-frame Teacher leads small group instruction: adding $8 + 5$ and $9 + 7$ using decomposition strategies</p> <p>Closing circle with students share what they did, what they learned and what they want to practice next.</p>	<p>Math Routine: Number Talk, $7+5$, $12 +5$, $17+5$ (decomposing strategies focus)</p> <p>CGI-based problem solving: students choose addition equation cards to solve through modelling with materials, creating math stories and/or using mental math strategies. Teacher encourages students to solve questions in more than one way.</p> <p>Closing circle: Teacher chooses a few students to share one of the addition equations they solved and how decomposing helped them solve it. Discuss as a class what have learned about decomposing.</p>

GRADE TWO WEEK PLAN

The following is an example of a grade two plan for a week focusing on the key concept of place value which is an important element of developing number sense. The variety of lesson types (each one hour long) provide a range of learning experiences for students. Please refer to “pedagogical design” elements in the support documents for mathematical foundations for more examples of choices when planning for mathematics instruction.

LEARNING FOCUS: ADDITION AND SUBTRACTION TO 100

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>Read <i>Two of Everything</i> by Lily Toy Hong, stopping to have students share their mental math strategies for calculating the number of items in the pot.</p> <p>Problem-posing: Invite students to create their own doubling math stories using numbers between 10-100 and solve them using at least two different strategies. Have students prepare their problem at their table/desk for others to solve via a gallery walk and stop to solve.</p> <p>Have students share some of the strategies they used for solving the problems. The teacher records the strategies on a whiteboard/chart.</p>	<p>Math Routine: Number Talk/String ($15-8=$, $45-8=$, $75-38=$, include adding up to subtract as a strategy)</p> <p>Math Workshop: Students choose learning experiences focused on the concepts of addition and subtraction. -Find Sums app (100 grid focusing on complementary numbers) -Addition Face-Off card game with three cards (adding a two-digit and a one-digit number) -Addition and subtraction question cards to solve on mini-whiteboards or in notebooks Teacher leads small group instruction: use of an open number line to represent mental math strategies for addition and subtraction questions</p> <p>Closing circle with students share what they did, what they learned and what they want to practice next.</p>	<p>In table groups, have students discuss what their learning goals are for addition and subtraction.</p> <p>Provide a selection of addition and subtraction questions on the whiteboard for students to choose from and invite students to investigate the concepts of addition and subtraction through materials. Offer: Unifix cubes, Cuisenaire rods, Numicon Shapes, Base Ten blocks, ten frames and counters, and drawing materials.</p> <p>Closing circle: Using an artefact or record of learning, invite students to share what materials they used and how they helped them thinking about addition or subtraction in new ways. Invite students to reflect on what materials they would choose to support their learning.</p>	<p>Math Routine: <u>Number Talk Images</u> (choose two or three images for students to discuss and teacher records +/- equations to represent their thinking)</p> <p>Math Workshop: Students choose learning experiences focused on the concepts of addition and subtraction. -Find Sums app (100 grid focusing on complementary numbers) -Subtraction Face-Off card game with three cards (subtracting a one-digit number from a two-digit number) -CGI addition and subtraction question cards to inspire problem-posing (record on mini-whiteboards or in notebooks) Teacher leads small group instruction: practicing addition and subtraction strategies (in response to formative assessment observations and discussions)</p> <p>Closing circle with students share what they did, what they learned and what they want to practice next.</p>	<p>Math Routine: Number Talk/String ($17+5=$, $57+5=$, $67+25=$)</p> <p>CGI-based math stories: students choose addition or subtraction equation cards to inspire a math story based on the equation structure. Students are encouraged to use characters and materials to act out the mathematical actions and communicate their strategies to a partner as they tell their story.</p> <p>Closing circle: Teacher has video-recorded some of the students’ math stories and shares them with the class to discuss strategy use and new ideas for math stories.</p>

