



SECOND EDITION  
**TEACHERS GUIDE**  
MAY



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# Number Corner May

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# May Sample Display

Of the items shown below, some are ready-made and included in your kit; you'll prepare others from classroom materials and the included teacher masters. Refer to the Preparation section in each workout for details about preparing the items shown. The display layout shown fits on a 10' x 4' bulletin board or on two 6' x 4' bulletin boards. Other configurations can be used according to classroom needs.



**Finger Pattern Display Cards**  
Used in Number Corner throughout the year.

**Number Line Pocket Chart**  
Extra red and blue cards can be kept in a zip-top bag pinned to the board.

**Plastic Link Chains & Ten-Frames**  
Keep the collected chains and ten-frames from previous months separate, off to the side; you'll add later months' chains and ten-frames to this space.

**Classroom Number Line**  
If possible, keep the number line where students can interact with it—below the bulletin board, for example.

**One Hundred Grid**  
You'll use this grid in Number Line activities this month.

**Cat & Dog Record Sheet & Graph**  
You'll spin for and record cats and dogs during Calendar Collector this month.

**Our Month in School Pocket Chart**  
Used during Calendar Collector activities.

# May Daily Planner

Day	Date	Calendar Grid	Calendar Collector	Days in School	Computational Fluency	Number Line	Assessment
1		<b>Activity 1</b> Introducing the May Calendar Markers (p. 8)	<b>Activity 1</b> Introducing Cats & Dogs (p. 15)	Update			
2		<b>Activity 2</b> Introducing the Observations Chart (p. 9)	<b>Activity 2</b> Recording Cats & Dogs (p. 16)	Update			
3		Update	Update	Update		<b>Activity 1</b> The Nifty Fifty (p. 37)	
4		Update	Update	Update	<b>Activity 1</b> Introducing Fives Up (p. 30)		
5		Update	<b>Activity 3</b> Examining the Data (p. 17)	Update		<b>Activity 2</b> Playing Cross Out Fifty (p. 39)	
6		<b>Activity 3</b> Posing & Solving Story Problems (p. 10)	Update	Update			
7		Update	Update	Update		<b>Activity 3</b> Coloring Rainbow Numbers on the Fifty Grid (p. 41)	
8		Update	Update	Update	<b>Activity 2</b> Playing the Game in Pairs (p. 33)		
9		<b>Activity 3</b> Posing & Solving Story Problems (p. 10)	Update	<b>Activity 1</b> Building the Number Line (p. 23)			
10		Update	<b>Activity 4</b> Recording the Data (p. 18)	Update			
11		<b>Activity 3</b> Posing & Solving Story Problems (p. 10)	Update	<b>Activity 2</b> Hopping on the Number Line (p. 25)			
12		Update	Update	Update		<b>Activity 3</b> Coloring Rainbow Numbers on the Fifty Grid (p. 41)	
13		Update	Update	Update	<b>Activity 2</b> Playing the Game in Pairs (p. 33)		
14		<b>Activity 3</b> Posing & Solving Story Problems (p. 10)	Update	<b>Activity 3</b> Number Line Races (p. 26)			
15		Update	<b>Activity 3</b> Examining the Data (p. 17)	Update		<b>Activity 2</b> Playing Cross Out Fifty (p. 39)	
16		<b>Activity 3</b> Posing & Solving Story Problems (p. 10)	Update	Update		<b>Activity 4</b> Making Hap's Number Line, Part 1 (p. 42)	
17		Update	Update	Update		<b>Activity 4</b> Making Hap's Number Line, Part 2 (p. 43)	NC Checkup 4, Part 1 (p. 46)
18		<b>Activity 3</b> Posing & Solving Story Problems (p. 10)	Update	Update		<b>Activity 4</b> Making Hap's Number Line, Part 3 (p. 44)	
19		Update	Update	Update			NC Checkup 4, Part 2 (p. 47)
20		Update	<b>Activity 4</b> Recording the Data (p. 18)	Update			

**Note** On days when the Calendar Grid, Calendar Collector, and Days in School are not featured in an activity, the class will update them together. Update procedures are described at the beginning of each workout write-up. Summaries of the update procedures appear below.

**Calendar Grid** – Sing the Days of the Week Song, make predictions about and post the day's marker, have students solve the equation or story problem, and record an equation with the answer on the Observations Chart.

**Calendar Collector** – Have a student helper spin the Cat & Dog Spinner and post a card to show the result. Record the information on the Cat & Dog Record Sheet and Graph; discuss briefly with students.

**Days in School** – Add a dot to the ten-frame and a link to the chain, and have students figure out how many more are needed in one of the collections to make 10. Count all the dots and links collected so far, and record the result on the Classroom Number Line.

# Number Corner May

## Overview

This month’s workouts are rich with opportunities to pose and solve addition and subtraction story problems, represent and solve addition and subtraction combinations to 10, develop fluency with facts to 5, and practice counting by 1s and by 10s.

## Activities

Workouts	Day	Activities	D	G	SB
<b>Calendar Grid</b> Number Puzzles Each of the calendar markers this month features either a story problem or an equation. On the days the marker shows a story problem, students solve it and work with the teacher to generate an equation to match. On the days the marker shows an equation, students solve it and generate story problems to match.	1	1 Introducing the May Calendar Markers	●		
	2	2 Introducing the Observations Chart	●		
	6, 9, 11, 14, 16, 18	3 Posing & Solving Story Problems	●		
<b>Calendar Collector</b> Cats & Dogs to Ten This month’s Calendar Collector workout involves spinning a spinner on which three-quarters of the space is allotted to a cat and the other quarter to a dog, and recording the results to show where the arrow lands each day. At the end of each week, students examine and discuss the data and make predictions about the upcoming week. At the end of the month, students compare the data they collected over the weeks to decide if their results confirm their predictions or not.	1	1 Setting the Stage for an Investigation	●		
	2	2 Recording Cats & Dogs	●		
	5, 15	3 Examining the Data	●		
	10, 20	4 Recording the Data			●
<b>Days in School</b> Hopping by Tens on the Number Line The Days in School workout continues as a short daily routine for most days this month. During the workout, the teacher works with students to build a number line on the floor of the classroom and then use it to play a couple of very simple games.	9	1 Building the Number Line	●		
	11	2 Hopping on the Number Line		●	
	14	3 Number Line Races		●	
<b>Computational Fluency</b> Fives Up This month’s Computational Fluency workout features a card game in which students search for combinations that make 5. The teacher introduces the game by playing it with the whole class, and later students play the game in pairs.	4	1 Introducing Fives Up	●	●	
	8, 13	2 Playing the Game in Pairs		●	
<b>Number Line</b> Fun with Fifty Students explore patterns and relationships on a 1–50 number grid as they play a counting game and work with clues from the teacher to find certain numbers. They make their own 1–50 number line and grasshopper pointer to take home and share with their families during the upcoming summer vacation.	3	1 The Nifty Fifty	●		
	5, 15	2 Playing Cross Out Fifty		●	
	7, 12	3 Coloring Rainbow Numbers on the Fifty Grid			●
	16, 17, 18	4 Making Hap’s Number Line	●		
<b>Assessment</b> Number Corner Checkup 4 In the closing weeks of the school year, the teacher conducts a short interview with each student and administers a two-page written assessment to the entire class.	17	<b>Number Corner Checkup 4, Part 1</b> Introducing the Interview	●		
	19	<b>Number Corner Checkup 4, Part 2</b> Completing the Written Assessment			●

D – Discussion, G – Game, SB – Number Corner Student Book

## Teaching Tips

It's May, and another school year is almost over. Depending on your school calendar, you might have to adjust the activities to best meet the needs of your students before your year ends, or you might find that you are teaching well into June with time to repeat favorite activities. If you are in the latter camp, consider repeating the Computational Fluency game introduced this month, Fives Up, as well as the two games introduced during the Days in School activities, Hopping on the Number Line and Number Line Races. If you didn't have time to lead students through coloring their 1–50 Number Grids to form the rainbow and the boat, you might also return to that activity in the Number Line workout. Just as in December, you are encouraged to hold steady with Number Corner instruction through Field Day, school trips, assemblies, and other year-end events. You'll find that it provides a continued sense of routine that's so important to kindergartners and brings closure to some of the many math explorations you pursued throughout the year.

## Target Skills

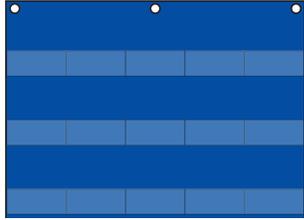
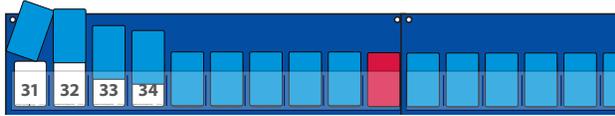
The table below shows the major skills and concepts addressed this month. It is meant to provide a quick snapshot of the expectations for students' learning during this month of Number Corner.

Major Skills/Concepts Addressed	CG	CC	DS	CF	NL
<b>K.CC.1</b> Count to 100 by ones and by tens			●		●
<b>K.CC.2</b> Count forward from a given number, rather than starting at 1				●	●
<b>K.CC.4a</b> Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name			●		
<b>K.CC.4b</b> Identify the number of objects as the last number said when counting a group of objects			●		
<b>K.CC.6</b> Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group for groups of up to 10 objects		●			
<b>K.CC.7</b> Compare two numbers presented as written numerals					●
<b>K.OA.1</b> Represent addition and subtraction with fingers, mental images, drawings, verbal explanations, expressions, and equations	●	●		●	
<b>K.OA.2</b> Add and subtract with sums and minuends to 10	●	●			
<b>K.OA.2</b> Solve addition and subtraction story problems	●	●			
<b>K.OA.3</b> Decompose numbers less than or equal to 10 into pairs in more than one way		●		●	
<b>K.OA.4</b> For any number from 1 to 9, find the number that makes 10 when added to that number			●	●	
<b>K.OA.5</b> Fluently add within 5				●	
<b>K.MD.3</b> Classify objects into categories and count the number of objects in each category		●			
<b>K.MP.1</b> Make sense of problems and persevere in solving them	●			●	
<b>K.MP.2</b> Reason abstractly and quantitatively		●			
<b>K.MP.3</b> Construct viable arguments and critique the reasoning of others	●				●
<b>K.MP.4</b> Model with mathematics		●	●		
<b>K.MP.5</b> Use appropriate tools strategically	●				
<b>K.MP.7</b> Look for and make use of structure					●
<b>K.MP.8</b> Look for and express regularity in repeated reasoning			●	●	●

CG – Calendar Grid, CC – Calendar Collector, DS – Days in School, CF – Computational Fluency, NL – Number Line

## Materials Preparation

Each workout includes a list of required materials by activity. You can use the table below to prepare materials ahead of time for the entire month.

Task	Done																																																		
<p><b>Copying</b></p> <p>Run copies of Teacher Masters T1–T13 according to the instructions at the top of each master.</p> <p>If students do not have their own Number Corner Student Books, run a class set of pages 23–24.</p>																																																			
<p><b>Charts</b></p> <p>Erase the Calendar Grid Observations Chart from March, when you used it last. Redraw the lines to create three columns as shown. The chart can be extended midway through the month using the second sheet of laminated chart paper. Use an erasable marker to record students’ observations so that you can reuse the chart in the years to come.</p> <div data-bbox="337 590 1036 762" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center; color: purple; font-size: 1.2em;">Calendar Grid Observations</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%; color: purple;">Date</th> <th style="width: 20%; color: purple;">Model</th> <th style="width: 60%; color: purple;">Story Problem</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> </div>	Date	Model	Story Problem																																																
Date	Model	Story Problem																																																	
<p>Remove the Frog and Toad Cards from the Our Month in School pocket chart, so students are greeted with a blank chart at the beginning of the month.</p>																																																			
<p><b>Record Sheets and Graph</b></p> <p>Run 4 copies of the Cat &amp; Dog Record Sheet and 1 copy of the Cat &amp; Dog Graph. At the bottom of the graph, color the cat orange and the dog brown. Post 2 blank copies of the Cat &amp; Dog Record Sheet and 1 copy of the Cat &amp; Dog Graph next to the Our Month in School pocket chart before you conduct the second activity.</p> <div data-bbox="407 989 967 1209" style="display: flex; justify-content: space-around; align-items: center;">    </div>																																																			
<p><b>Number Line Pocket Chart</b></p> <p>The Number Line pocket chart setup remains the same as last month, with the numbers 31–50 inserted in the pockets and a blue or red card covering each.</p> <div data-bbox="380 1318 995 1434" style="text-align: center;">  </div> <p><b>100 Number Mat</b></p> <p>Locate the 100 Number Mat in your Number Corner Kit. Post the mat in your Number Corner display area at a height the students can see and reach. Cover the lower half of the mat with a piece of construction paper to mask the numbers 51–100.</p> <p><b>Note</b> The Number Mat figures prominently in Activities 1 and 2 this month. As an alternative to using the mat posted in the Number Corner display area for Activity 2, you can run 2 copies of the 1–50 Number Grid Teacher Master to use at the document camera instead.</p> <div data-bbox="516 1671 865 1879" style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px 0;"> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tbody> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> <tr><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td></tr> <tr><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td><td>50</td></tr> </tbody> </table> </div>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
1	2	3	4	5	6	7	8	9	10																																										
11	12	13	14	15	16	17	18	19	20																																										
21	22	23	24	25	26	27	28	29	30																																										
31	32	33	34	35	36	37	38	39	40																																										
41	42	43	44	45	46	47	48	49	50																																										

Task	Done
<p><b>Paper Cutting</b> After running 8 copies of the Cat &amp; Dog Cards Teacher Master on heavy paper or card stock, cut the cards apart. You will need one card for each student to color the first day you conduct this activity. You'll want to start with 16 orange and 16 brown cards, so plan to have some of your students color more than one, depending on your class size.</p> <p>Before you conduct Activity 1 in Days in School, lay down a 12-foot strip of blue masking tape, either in the center of your Number Corner discussion area, or along one side of the area.</p> <p>In addition, cut 11 pieces of blue masking tape, each about 3 inches long. Using a wide-tipped black permanent marker, number each piece with a multiple of 10, starting at 0 and continuing through 100. Stick these small pieces of tape to a chalk ledge or some other surface where they'll be easy to reach when you conduct the first activity.</p>	
<p><b>Special Items</b> <b>Hap's Number Line and Student Grasshopper Pointers</b></p> <p>Run a class set plus a few extras of the Hap's Number Line Teacher Master. Run copies of the Hap Pointer Cutouts Teacher Master on green copy paper or construction paper—enough for each student to have a left and right view. (There are enough grasshoppers on one page for six students.) Cut these sheets into sections along the heavy lines. Students will fold on the dotted line, insert a craft stick between the two grasshopper pictures, and glue in place to make a grasshopper that is able to "hop" in both directions. Run a half-class set of the Hap's Note Home Teacher Master, cut in half, and glue or tape to one side of a 6" x 9" (or similar sized) manila envelope for each student.</p> <p>Make a basket of Unifix cubes snapped into trains of 10 same-colored cubes for Calendar Grid activities.</p> <p>Prepare a deck of cards for Computational Fluency Activity 1, as well as a deck of cards for each pair of students to use during Activity 2:</p> <ul style="list-style-type: none"> <li>• Go through each deck of Ten-Frame Dot Cards and each deck of Number Cards to remove the cards that show quantities or numerals 6 or greater, and set aside those cards for now.</li> <li>• Combine half the 0–5 cards from a deck of Ten-Frame Dot Cards (two of each quantity 0–5) and half the 0–5 cards from a deck of Number Cards (two of each numeral 0–5) to create a smaller deck of 24 cards that includes two ten-frame and two numeral cards for each number 0, 1, 2, 3, 4, and 5.</li> <li>• The 8 decks of Ten-Frame Dot Cards and 8 decks of Number Cards will enable you to create as many as 16 smaller decks, or enough for 32 students. If you have more than 32 students, some may need to play the game in groups of three rather than pairs during Activity 2.</li> </ul> <p>Have students help you snap together trains of 10 Unifix cubes in single colors. Each student will need two trains in different colors for the written assessment.</p>	

# May Calendar Grid Number Puzzles

## Overview

Each of the calendar markers this month features either a story problem or an equation. On the days the marker shows a story problem, students solve it and work with the teacher to generate an equation to match. On the days the marker shows an equation, students solve it and generate story problems to match.

## Skills & Concepts

- Represent addition and subtraction with fingers, mental images, drawings, verbal explanations, expressions, and equations (K.OA.1)
- Add and subtract with sums and minuends to 10 (K.OA.2)
- Solve addition and subtraction story problems (K.OA.2)
- Make sense of problems and persevere in solving them (K.MP.1)
- Construct viable arguments and critique the reasoning of others (K.MP.3)
- Use appropriate tools strategically (K.MP.5)

## Materials

Activities	Day	Copies	Kit Materials	Classroom Materials
<b>Activity 1</b> Introducing the May Calendar Markers	1		Used in all Calendar Grid activities this month: • Calendar Grid pocket chart (see Preparation) • Number Puzzles Calendar Markers • Month, Day, and Year Cards	<ul style="list-style-type: none"> <li>• pointer</li> <li>• Unifix cubes (see Preparation)</li> </ul>
<b>Activity 2</b> Introducing the observations chart	2			<ul style="list-style-type: none"> <li>• erasable marker</li> <li>• Calendar Grid Observations Chart (see Preparation)</li> <li>• Unifix cubes (see Preparation)</li> </ul>
<b>Activity 3</b> Posing & Solving Story Problems	6, 9, 11, 14, 16, 18			<ul style="list-style-type: none"> <li>• student whiteboards, markers, and erasers (class set)</li> <li>• Unifix cubes (see Preparation)</li> </ul>

TM – Teacher Master, NCSB – Number Corner Student Book  
Copy instructions are located at the top of each teacher master.

## Preparation

- Erase the Calendar Grid Observations Chart from March, when you used it last. Redraw the lines to create three columns as shown. The chart can be extended midway through the month using the second sheet of laminated chart paper. Use an erasable marker to record students' observations so you can reuse the chart in the years to come.

Calendar Grid Observations		
Date	Model	Story Problem

- Place a basket of Unifix cubes snapped into trains of 10 same-colored cubes in the Number Corner discussion area where they'll be easy for students to access them to help solve story problems or equations through the month.

## Vocabulary

An asterisk [\*] identifies those terms for which Word Resource Cards are available.

add\*  
count\*  
count on\*  
day  
equal\*  
equation\*  
Friday  
May  
minus  
Monday  
month  
number words for 1–31  
pattern\*  
plus  
Saturday  
solve  
story problem  
strategy  
subtract\*  
sum or total\*  
Sunday  
Thursday  
Tuesday  
Wednesday  
week

## Mathematical Background

The Common Core Standards require that kindergartners learn to represent and solve four types of story problems, two types that involve addition and two types involving subtraction. Examples of each type are listed on the chart below. The story problems that appear on this month’s calendar markers are either Put Together or Take Aparts, problem types that students are not likely to pose themselves. Each time the marker presents an equation, they work with the teacher to pose a matching story problem. The problems they pose will likely be of the Add To or Take From type, as these are easier to tell and involve actions of all sorts—running, jumping, hiding, crawling, eating, sleeping, disappearing, and so on. All in all, students should have many opportunities through the month to deal with all four types of problems.

Problem Type	Example	Comments
Add To, Result Unknown	There were 5 kittens in the basket. One more kitten crawled into the basket. How many kittens in all? $5 + 1 = ?$	This type of problem requires an action; there is an initial quantity and some more are added to join the party.
Put Together Total Unknown	Marco’s dog had puppies last week. Four of them are white and 5 are brown. How many new puppies are there? $4 + 5 = ?$	There is no action involved in this type of problem. The examples given usually involve quantities of the same object in two different colors, types, or sizes (e.g., 2 big dogs and 1 little dog; 3 brown and 2 blue dog toys).
Take From, Result Unknown	There were 6 dogs at the park. Two of them had to go home. How many dogs were left? $6 - 2 = ?$	This type of problem also requires an action; there is an initial quantity and some of them are removed.
Take Apart, Addend Unknown	Maria has 5 cats. Two of the cats are black. The rest are striped. How many of Maria’s cats are striped? $5 - 2 = ?$ (This could also be written as $2 + ? = 5$ )	There is no action involved in this type of problem. There is a certain quantity of objects. A given number of those objects possess some characteristic (e.g., color, size, or location), and the rest possess a variation on that characteristic. The problem solver has to figure out how many there are in the second group.

## About the Pattern

Following is a description of the patterns found in the May calendar marker set. Although your students may not discover all of the patterns listed below, they will surely ferret out some of them, given enough time and opportunity.

- The background colors on the markers alternate in an ABAB pattern through the month.
- The markers alternate between story problems and equations in an ABAB pattern.
- There is a picture of a cat or a dog on every other marker through the month, and these appear in an ABAB pattern.
- The operations of addition and subtraction appear in an AABB pattern through the month—an addition story problem, an addition equation, a subtraction story problem, and a subtraction equation.
- The animals featured in the stories and visuals through the month appear in an ABBA; ABBA pattern: dog, cat, cat, dog; dog, cat, cat, dog; and so on.
- The answer to each story problem or equation matches the day’s date through the 10th. After that, the answers match the digits in the ones place except for the markers on Days 20 and 30, where the answers are both 10. In other words, the answers appear in the following sequence three times over the month: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

## Key Questions

Use questions and prompts like these to help students develop skill at representing, solving, and posing story problems.

- What is this problem asking you to do? What do you have to find out?
- Can you use numbers or drawings on your whiteboard to help find the answer?
- Can you use your fingers or the Unifix cubes to help, and then find a way to show your thinking on your whiteboard?
- Is there a way you can label your drawings with numbers to show your thinking more clearly?
- How did you figure out the answer?
- Can you share your strategy with the person sitting next to you?
- Let’s read the equation on today’s marker. Is it an addition or a subtraction equation? How do you know?
- Can you think of a story to match the equation? Will your story be about cats or dogs that come to join in the fun, or cats or dogs that go away for some reason? Why?

May 2014						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				Jon has a dog. He wants another, but his mom says one is enough. How many dogs does Jon have? <b>1</b>	$1 + 1 = \square$  <b>2</b>	Maria has 5 cats. Two of the cats are black. The rest are striped. How many of Maria's cats are striped? <b>3</b>
$6 - 2 = \square$  <b>4</b>	Sara saw 2 big dogs and 3 little dogs in the park. How many dogs did Sara see? <b>5</b>	$5 + 1 = \square$  <b>6</b>	Max's cat just had 9 kittens. Two of the kittens are black. The rest are gray. How many of the kittens are gray? <b>7</b>	$10 - 2 = \square$  <b>8</b>	Marco's dog had puppies last week. Four of them are white and 3 are brown. How many new puppies are there? <b>9</b>	$7 + 3 = \square$  <b>10</b>
Mal's grandma has 4 cats. Three of the cats are black. The rest are orange. How many of the cats are orange? <b>11</b>	$5 - 3 = \square$  <b>12</b>	Ling saw some dogs at the pet store. Two of them were big and 1 was little. How many dogs did Ling see? <b>13</b>	$2 + 2 = \square$  <b>14</b>	Sam got 6 toys for his cat. One of the toys is a ball. The rest are toy mice. How many of the toys are mice? <b>15</b>	$7 - 1 = \square$  <b>16</b>	Jack saw some dogs at the park. Four of them were collies. Three were beagles. How many dogs did Jack see? <b>17</b>
$4 + 4 = \square$  <b>18</b>	Jade's friend has 10 kittens. One of the kittens is striped. The rest are black. How many kittens are black? <b>19</b>	$12 - 2 = \square$  <b>20</b>	Amy went to look for her dogs. She saw 0 dogs in the backyard and 1 dog in the house. How many dogs did she find? <b>21</b>	$2 + 0 = \square$  <b>22</b>	Lim has 6 cans of catfood. Three of them are chicken flavor. The rest are fish. How many of the cans of food are fish? <b>23</b>	$5 - 1 = \square$  <b>24</b>
Rico got some toys for his dog. Three of the toys were brown and 2 were blue. How many dog toys did he get? <b>25</b>	$3 + 3 = \square$  <b>26</b>	Deja's cat has 10 tiny play mice. Three of them are lost. The rest are still in the basket. How many are in the basket? <b>27</b>	$9 - 1 = \square$  <b>28</b>	Jen got some biscuits for her dogs. Six of the biscuits were big and 3 were little. How many biscuits did Jen get? <b>29</b>	$6 + 4 = \square$  <b>30</b>	Dan has 5 kittens. Right now, 4 of them are with their mother. The rest are playing. How many are playing? <b>31</b>

## Update

Begin updating after Day 2. Follow this update procedure every day that the Calendar Grid is not a featured activity.

### Procedure

- Have students sing or recite the names of the days of the week as you or the helper points to each of the filled pockets on the Calendar Grid.
- When you reach the pocket for today, have students identify the name of the day.
- Ask students to make predictions about the marker for the day before it is posted.
- Invite a student helper to post the calendar marker for the day.
- Once the marker is posted, have students solve the story problem or equation. Work with their input to fill in the chart as described in Activity 2.

### Note

During updates, have students use their fingers or cubes to solve the problems quickly; do not take time to have them share their strategies. If the marker for the day shows an equation, just have students solve it, without taking time to pose a story problems to match. Students will share problem-solving strategies and pose story problems on the days the Calendar Grid is one of the featured workouts.



## Activity 1

### Introducing the May Calendar Markers

### Day 1

The Calendar Grid pocket chart should be empty of markers when students join you in the discussion area, showing only the name of the new month and the Days of the Week Cards.

- Take a minute or two to help students understand that one month has just ended and a new month has started.
  - Ask students to join you in the discussion area, and seat them close to the Number Corner display.
  - Note with them that the calendar markers from the previous month are gone and there are no new markers in the Calendar Grid pocket chart right now.
  - Explain that the month of April is over. A new month has started, and you have a whole new set of calendar markers to share with them.
  - Draw students' attention to the month card at the top of the pocket chart. Read the card to the class, noting that the word *May* starts with a capital M and ends with the letters "ay."
- Identify the day on which May started with the class, and post the first marker in the correct pocket.
  - Point to the Days of the Week Cards, starting with Sunday, and sing the Days of the Week song once through with the class, pointing to each card as you go. Start the song a second time, but stop on the day May started.
  - Post the marker in the pocket for that day.
  - Take a minute to discuss the first marker with the class.



*Students* It's just words—no pictures!

*What does it say?*

*I see my name up there—Jon. Plus, I can read the word "dog."*

- Read the text on the card to the class, and ask students to solve the problem.
  - Read the text once through and ask students what the problem is asking them to figure out.
  - After a bit of discussion, read the problem again and ask students to pair-share solutions.
  - Have the whole class give the answer, and then ask a couple of volunteers to explain how they solved the problem.

*Students* He only has 1 dog. He can't have any more.

*It has to be 1 because his mom won't let him have any more.*

- Ask students to predict what they might see on the next marker, first in pairs and then as a class.

*Students* Maybe another story about dogs.

*Maybe we'll have to do another problem.*

*It could be about cats next time, or maybe fish or other pets.*

- 5 Then post any other markers needed to bring the Calendar Grid up to date if your first day of class in May doesn't start on the first.

*As you do so, encourage students to share observations with one another, but don't take time to solve the problems or equations until the following day.*



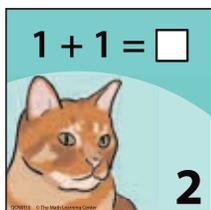
## Activity 2

### Introducing the Observations Chart

### Day 2

Post the Calendar Grid Observations Chart you prepared on or near the Number Corner display board prior to conducting this activity.

- 1 Have students sing or recite the names of the days of the week as you or the helper points to each of the filled pockets on the Calendar Grid.  
When you reach the pocket for today, have students identify the name of the day.
- 2 Ask students to predict what the next marker will show before you place it on the chart.
- 3 Once the new marker is posted, ask students to pair-share their observations. Then invite several volunteers to share with the class.



*Students* There's a cat—I knew it!

*One and 1—that's easy! It's 2!*

*I think it's going to be a dog next time, so it'll go dogs, cats, dogs, cats.*

- 4 Read the equation on the marker with the class. Have students pair-share the answer and then on your signal, say it aloud.

Invite two or three students to explain their thinking.

*Teacher* Everyone seems to agree that the answer to this addition equation is 2. Who'd like to tell us how they figured it out?

*Students* I just knew it, because 1 and 1 is really easy.

*I put it on my fingers, just 1 on this hand and 1 on the other.*

*It's kind of like counting 1, then 2, so it's 2.*

- 5 Next, draw students' attention to the recording chart you prepared. Work with input from the class to enter information about all the markers you have on display so far, starting with Marker 1.
  - If the marker shows a story problem, read it to the class and work with input from students to write and solve an equation to match. Do not enter anything in the story problem column.
  - If the marker shows an equation, record it on the chart, and have students read and solve it. Then ask them to pair-share ideas for a story problem to match the equation and the animal shown on the marker.

- Invite several volunteers to share their ideas with the class. Choose one of them to record on the chart.

Jon has a dog. He wants another, but his mom says one is enough. How many dogs does Jon have? **1**

$1 + 1 = \square$   
 **2**

Calendar Grid Observations		
Date	Model	Story Problem
1	$1 + 0 = 1$	
2	$1 + 1 = 2$	There was 1 cat in the basket. Then another cat got in the basket. How many cats in all?

### Activity 3

#### Posing & Solving Story Problems **Days 6, 9, 11, 14, 16, 18**

Students will each need a whiteboard, marker, and eraser every time you conduct this activity. Have them pick up these materials on their way to the Number Corner discussion area and set them on the floor in front of themselves until they're needed. Be sure to have a basket of Unifix cubes snapped into trains of 10 easily accessible to students who want to use them.

- 1 Have students sing or recite the names of the days of the week as you or the helper points to each of the filled pockets on the Calendar Grid.  
When you reached the pocket for today, have students identify the name of the day.
- 2 Ask students to make predictions about the marker for the day before it is posted.
- 3 Invite a student helper to post the calendar marker for the day.
- 4 If the marker shows an equation, read it with students and have them use sketches or numbers on their whiteboards to solve it.  
Allow students who want to use Unifix cubes to get a single train of 10 cubes out of the basket. You can also encourage students to use their fingers to help. In either case, ask these students to use sketches or numbers on their whiteboards to show their thinking, as well as the answer.
- 5 As students finish, have them share their work with the people sitting nearest them. Did they get the same answer? Did they use the same strategy to solve the equation?
- 6 Solicit students' answers and record all that are volunteered, even if they're incorrect. Then invite several volunteers to report their answers and explain their strategies.  
Have these students stand up in front of the group, by 1s. As each student shares, hold their whiteboard for them so their hands are free to point out the features of their work as they explain their strategy to the class.

$10 - 2 = \square$   
 **8**

  
8

  
 $10 - 2 = 8$

10 9 (8)

*Jenna* I got 10 cubes and took 2 of them away. There were 8 left. Then I made lines on my board to show. The answer is 8.

*Heather* I put up both hands and then took my thumbs away because that's like 10 take away 2. It's 8 left, see?

*Alexis* I counted back 2. I went 10, then 9, then 8.

7 Record the equation, including the answer on the observations chart. Then ask students to pair-share ideas for a story problem to match the equation they just solved.

- Have them generate story problems about the animal shown on the marker.
- Invite several volunteers to share their ideas with the class.

*Teacher* So, our marker today shows the equation  $10 - 2$ , and you figured out the answer. It's 8. Now I'd like you to talk with the person sitting next to you about a story problem to match the equation you just solved. Will your story problem today be about cats or dogs? Dogs, right, because the marker shows a dog. (Gives students a minute to pair-share ideas.) Who'd like to share their story with us?

*Daniel* There were 10 dogs. Two of them got out and ran far away where no one could catch them.

*Teacher* OK... what do you want people to figure out about your problem? What question could we ask so people know what to do when they try to solve the problem?

*Kian* How many are left?

*Teacher* Let's try that and see if it works. Can you tell your story problem again with the question at the end?

*Daniel* There were 10 dogs. Two of them got out and ran away. How many are left?

*Teacher* Does someone have a different idea for a story problem to match the equation  $10 - 2 = 8$ ?

*Jack* Ten dogs were at the park. Two of them had to go home and eat lunch. How many were left?

8 Choose one of the story problems shared by students to record on the observations chart.

Calendar Grid Observations		
Date	Model	Story Problem
1	$1 + 0 = 1$	
2	$1 + 1 = 2$	There was 1 cat in the basket. Then another cat got in the basket. How many cats in all?
3	$5 - 2 = 3$	
4	$6 - 2 = 4$	
5	$2 + 3 = 5$	
6	$5 + 1 = 6$	My cat had 5 toys. I gave her 1 more toy. How many toys does she have now?
7	$9 - 2 = 7$	
8	$10 - 2 = 8$	There were 10 dogs in the backyard. Two of them got out. How many were left?

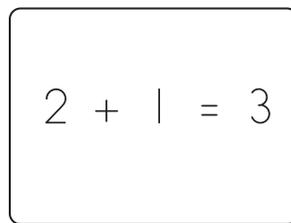
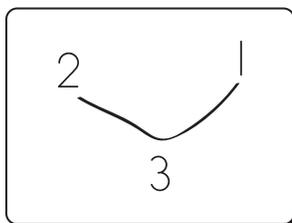
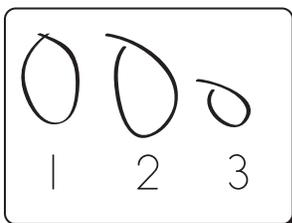
9 If time allows, choose one or more of the equation markers from earlier in the month and have students generate story problems to match.

Since the odd-numbered markers already have story problems, you'll only work with even-numbered markers, and it's fine if you don't have time to develop a matching story problem for each of them this month.

10 If the marker features a story problem instead of an equation when you conduct this activity, follow roughly the same steps as described above but in a slightly different order:

- Read the story problem to the class.
- Clarify with students what it is they need to figure out.
- Have them use drawings or numbers on their whiteboards to solve the problem. Make Unifix cubes available to those students who want to use them to help solve the problem.
- Have students share and compare their strategies and solutions in pairs as they finish.
- Solicit and record students' answers, and then invite several volunteers to share and explain their work.

Ling saw some dogs at the pet store. Two of them were big and 1 was little. How many dogs did Ling see? **13**



- Finally, work with the class to generate an equation to match the story problem. Record the equation on the observations chart.
- If time allows, choose one or more of the equation markers from earlier in the month and have students generate story problems to match.

Calendar Grid Observations		
Date	Model	Story Problem
1	$1 + 0 = 1$	
2	$1 + 1 = 2$	There was 1 cat in the basket. Then another cat got in the basket. How many cats in all?
3	$5 - 2 = 3$	
4	$6 - 2 = 4$	
5	$2 + 3 = 5$	
6	$5 + 1 = 6$	My cat had 5 toys. I gave her 1 more toy. How many toys does she have now?
7	$9 - 2 = 7$	
8	$10 - 2 = 8$	There were 10 dogs in the backyard. Two of them got out. How many were left?
9	$4 + 5 = 9$	
10	$7 + 3 = 10$	
11	$4 - 3 = 1$	
12	$5 - 3 = 2$	My dog had 5 bones. He ate 3 of them. How many bones does he have left?
13	$2 + 1 = 3$	

# May Calendar Collector

## Cats & Dogs to Ten

### Overview

This month's Calendar Collector workout involves spinning a spinner on which three-quarters of the space is allotted to a cat and the other quarter to a dog, and recording the results to show where the arrow lands each day. After experimenting with the spinner and making some predictions about the monthlong investigation, students spin the Cat & Dog Spinner once each day, place a card in the Our Month in School pocket chart to show the result, and enter the information on a graph. They also work with the teacher to write an equation representing the number of cats and the number of dogs in the current row each day. At the end of each week, students examine and discuss the data and make predictions about the upcoming week. At the end of the month, they compare data to decide whether it confirms their predictions.

### Skills & Concepts

- Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group for groups of up to 10 objects (K.CC.6)
- Represent addition with objects, drawings, numbers, and equations (K.OA.1)
- Add with sums to 10 and solve addition story problems (K.OA.2)
- Decompose numbers less than or equal to 10 into pairs in more than one way (K.OA.3)
- Classify objects into categories and count the number of objects in each category (K.MD.3)
- Reason abstractly and quantitatively (K.MP.2)
- Model with mathematics (K.MP.4)

### Materials

Activities	Day	Copies	Kit Materials	Classroom Materials
<b>Activity 1</b> Setting the Stage for an Investigation	1	<b>TM 1</b> Cat & Dog Cards	<ul style="list-style-type: none"> <li>• Our Month in School pocket chart</li> <li>• Cat &amp; Dog Spinner</li> </ul>	<ul style="list-style-type: none"> <li>• student whiteboards, markers, and erasers (class set)</li> <li>• orange and brown crayons for student use</li> </ul>
<b>Activity 2</b> Recording Cats & Dogs	2	<b>TM 2</b> Cat & Dog Record Sheet <b>TM 3</b> Cat & Dog Graph		<ul style="list-style-type: none"> <li>• orange and brown crayons</li> <li>• markers</li> </ul>
<b>Activity 3</b> Examining the Data	5, 15			
<b>Activity 4</b> Recording the Data	10, 20	<b>NCSB 23*</b> Cat or Dog?		<ul style="list-style-type: none"> <li>• orange and brown crayons</li> </ul>

TM – Teacher Master, NCSB – Number Corner Student Book  
Copy instructions are located at the top of each teacher master.

\* Run 1 copy of this page for display.

### Vocabulary

An asterisk [\*] identifies those terms for which Word Resource Cards are available.

- add\*
- column\*
- compare\*
- count\*
- count on\*
- equation\*
- graph\*
- greater than\*
- less\*
- less than\*
- more\*
- most\*
- row\*
- sum or total\*

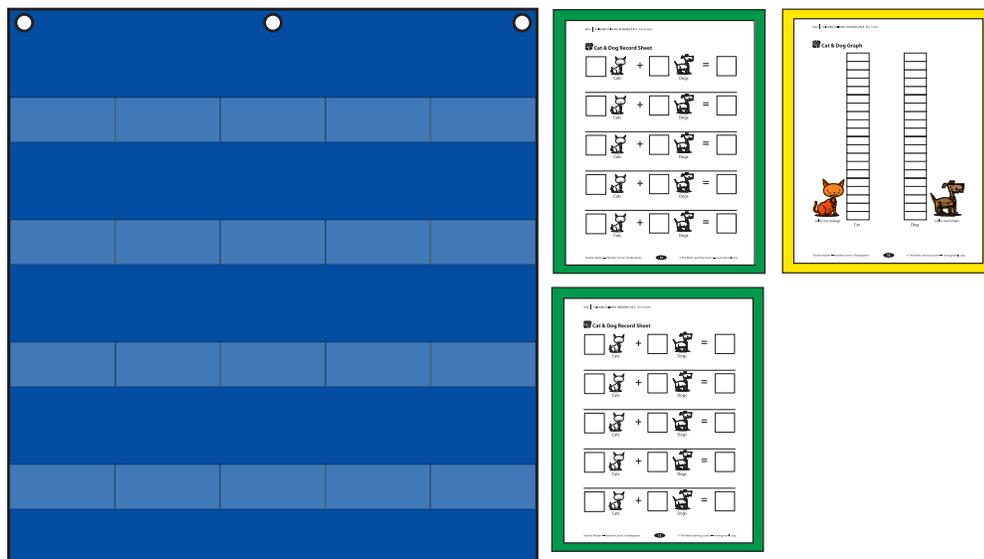
### Preparation

#### Pocket Chart and Display Cards

Remove the Frog and Toad Cards from the Our Month in School pocket chart, so students are greeted with a blank chart at the beginning of the month. Also, run 8 copies of the Cat & Dog Cards Teacher Master on heavy paper or card stock if possible. Cut the cards apart. You will need one card for each student to color the first day you conduct this activity. You'll want to start with 16 orange cats and 16 brown dogs, so plan to have some of your students color more than one, depending on your class size.

## Record Sheets and Graph

Run 4 copies of the Cat & Dog Record Sheet and 1 copy of the Cat & Dog Graph. At the bottom of the graph, color the cat orange and the dog brown. Post 2 blank copies of the Cat & Dog Record Sheet and 1 copy of the Cat & Dog Graph next to the Our Month in School pocket chart before you conduct the second activity.



## Mathematical Background

This month's Calendar Collector is a variation of last month's experiment—how many times will you land on one of two characters if the spinner is divided into fourths, with three-fourths of the space allotted to one character and only one-fourth of the space allotted to the other? Is the arrow any more likely to land on the cat than the dog, or do they both have an equal chance? As adults, we know that the probability, on any given spin, of landing on the cat is 3 out of 4, while the probability of landing on the dog is only 1 out of 4. We also know that 10 or even twenty spins aren't likely to produce results in these exact proportions.

More often than not, kindergarteners' comments don't reflect the same thinking. It's the exception rather than the rule to hear them comment that the arrow should land on the cat more frequently than the dog because the cat has more space on the spinner. Because there is no expectation your kindergartners will master any of the skills, concepts, or terminology related to probability, you don't have to do anything more than listen, encourage your students to share their reasoning, and then provide the experience that will allow them to test their ideas. What they will discover over a month's time is that the arrow lands on the cat more frequently, despite the fact that the dog is bigger, more powerful and, in the eyes of some, more lovable. This may be a bit of a puzzle to some of your students, but not one that you have to explain in any formal way. The experience of collecting the data, representing the information, working with combinations of 5 and 10, and musing over the results is sufficient.

## Key Questions

Use the following questions and prompts to guide students as you conduct the Calendar Collector workout this month.

- Do you think we'll spin a cat or a dog today? What makes you think so?
- How many cats do we have posted in the first row so far? How many dogs? What addition equation can we write to describe the number of cats in the first row, the number of dogs in the first row, and their total today?
- How many more pockets do we have to fill to make the first set of 5?
- Let's take a look at the first two rows on our chart today. How many cats do we have posted in the first two rows so far? How many dogs? What addition equation can we write to describe the number of cats in the first two rows, the number of dogs in the first two rows, and their total today?
- How many more pockets do we have to fill to make the first set of 10?
- How many cards total do we have posted on our pocket chart so far? How did you count them?
- Take a look at the Cat & Dog Graph. Have we spun more cats or more dogs so far? How many more? How do you know?

## Update

Begin updating after Day 2. Follow this update procedure every day that the Calendar Collector is not a featured activity. You'll update the Calendar Collector as part of Activities 3 and 4 as well.

### Procedure

- Have the student helper spin the Cat & Dog Spinner during Number Corner, and post a new cat or dog card in the pocket chart to show the result.
- Work with input from the class to write an addition equation on the Cat & Dog Record Sheet to represent the number of cat cards and the number of dog cards, including today's, posted in the current row so far. (This month, the equations continue over two record sheets, so by the time you are posting cards in the second and fourth rows the combinations will go beyond 5, all the way up to 10.)
- Invite the student helper to color in a box on the Cat & Dog Graph to represent the day's spin.
- Have the class count and compare the number of cats and dogs colored in so far.

### Literature Connections

If you have access to the books listed below, you might share them with your students this month.

*Animals on Board*  
(MathStart 2) by  
Stuart J. Murphy

*A Cat and a Dog* by  
Claire Masurel

*Cat or Dog for President*  
by Julia Dweck

## Activity 1

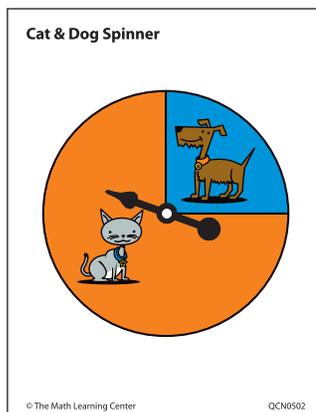
### Introducing Cats & Dogs

### Day 1

Students will each need a whiteboard, marker, and eraser for this activity. Have them pick up their materials as they come to the Number Corner discussion area and place them on the floor safely in front of themselves until needed.

- 1 Introduce the Calendar Collector for the month.

Show students your Cat & Dog Spinner and ask them to share any observations they may have.



Students are almost sure to comment on the fact that the cat has more room on the spinner than the dog. Which animal, if either, do they think might come up most if you were to make 10 spins? Encourage students to share their reasoning as they make predictions. Does the difference in the spinner have any effect on their predictions?

- 2 After students make some predictions, explain that you're going to spin the arrow 10 times, and that you want each of them to keep score on their board.  
*You may, as you did last month, ask students to invent their own methods of recording the results. You might also consider sharing some kind of simple system with them, such as dividing their board in two, labeling the sides in some way, and making a mark on the appropriate side for each spin.*
- 3 When everyone is ready, spin the arrow 10 times while they keep score. Then discuss the results.



**Students** *The cat won!*

*The cat got lots—the dog hardly got any.*

*The cat got 1, 2, 3, 4, 5, 6, 7 and the dog only got 3.*

*Cats can run faster.*

*I think the cat got more 'cause it's got more room on there. That spinner isn't fair.*

**Teacher** *What would a fair spinner look like?*

**Student** *It would be part for the cat and part for the dog, like last time with the frog and that other one.*

**Teacher** *The spinner would be divided equally, half for the cat and half for the dog?*

**Students** *Yes!*

- 4 Promise students that you'll spin the spinner every day to see if the cat or the dog comes up, and keep score by placing a card for that animal in the Our Month in School pocket chart, as well as by marking a graph.
- 5 If time permits, hand out the cards and have students color them in right now. If not, have them do so before you meet for Number Corner the next day.  
*You'll need 16 cats colored orange and 16 dogs colored brown. Figure out ahead of time how you want to handle this with students.*



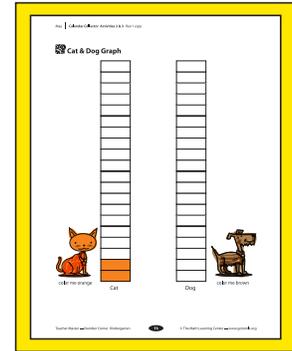
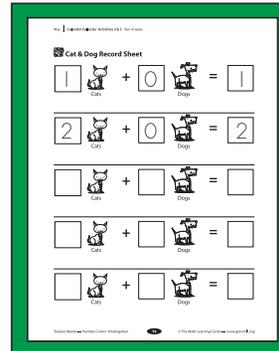
## Activity 2

### Recording Cats & Dogs

### Day 2

- 1 Show students the cat and dog cards, now colored in, and remind them about the investigation you are going to conduct this month.
- 2 Then explain that you're going to have helpers spin the Cat & Dog Spinner to see which cards should be posted for yesterday and today.  
Based on yesterday's experience, what do students think will happen?
- 3 Choose a helper to spin the arrow once and then post the designated card in the first pocket.

- Discuss the results with the class and color in the graph (or have a helper do so) to show what happened. Then write an equation at the top of the first record sheet to show how many cats and how many dogs there are on the chart at this point.
- Repeat steps 3 and 4.  
Briefly discuss the data collected so far with students. Let them know that you will repeat today's process each school day this month, and by the end of the month, they will see how their predictions turn out.

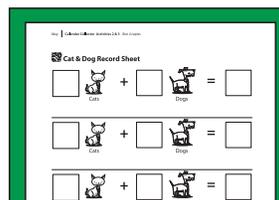
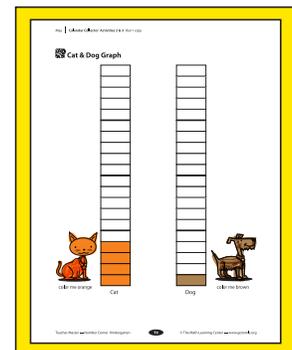
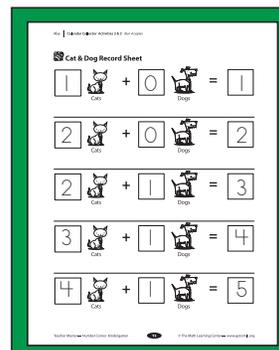
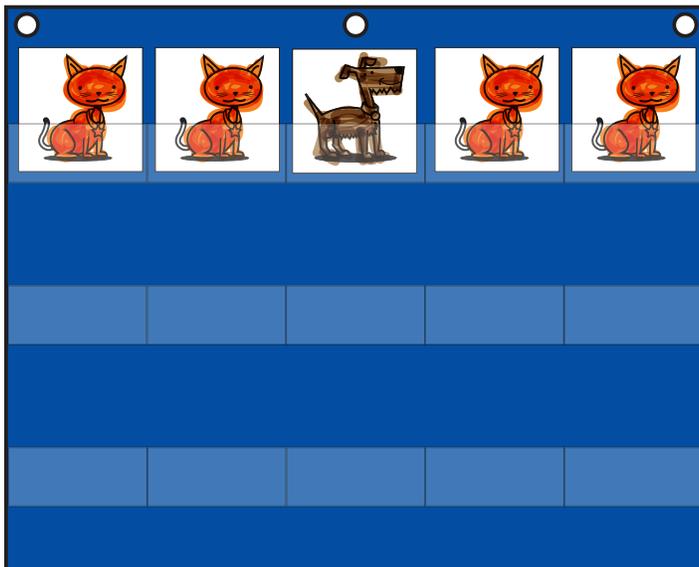


### Activity 3

#### Examining the Data

Days 5, 15

- Complete the update procedure to fill the current row. Then discuss the data collected so far with the class.



Give them a minute to pair-share observations, and then call on volunteers to share their observations and comments with the class. Here are some prompts and questions to pose during the discussion.

- How many cats did we spin this week? How many dogs?
- Did we get more cats or dogs? How many more? How do you know?
- Do you think we'll get the same results next week? Why or why not?

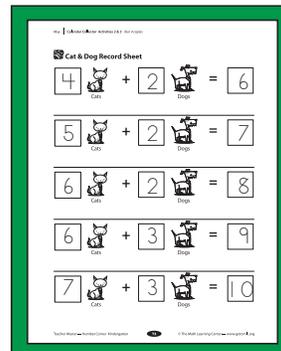
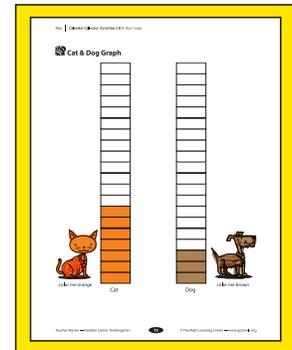
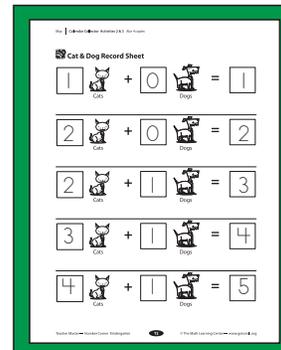
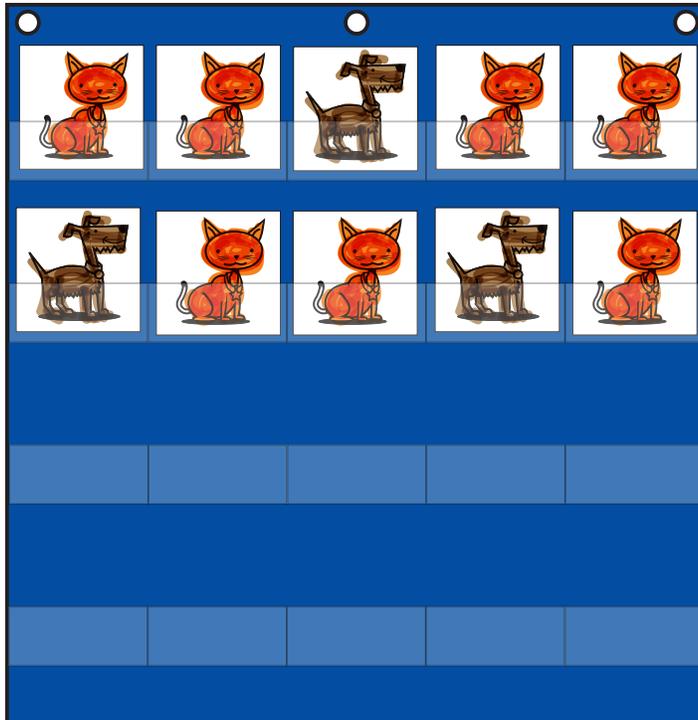
# Activity 4

## Recording the Data

Days 10, 20

Students will each need their Number Corner Student Book, a pencil, and an orange and a brown crayon for this activity. Before you conduct the activity, you'll need to decide whether to have them bring their materials to the Number Corner discussion area or to have them leave materials at their tables, join you in the Number Corner area to discuss the data, and then return to their tables to do the work in their books.

- 1 Complete the update procedure to fill the first two rows. Then discuss the data collected so far with the class.



Give them a minute to pair-share observations, and then call on volunteers to share their observations and comments with the class. Here are some prompts and questions to pose during the discussion.

- How many cats did we spin over the past two weeks? How many dogs?
- Did we get more cats or dogs? How many more? How do you know?
- Do you think we'll get the same results over the next two weeks? Why or why not?

- 2 Display your copy of the Cat or Dog? Number Corner Student Book page. Read and explain the instructions at the top of the page to your students. Remind students to use orange for the cats and brown for dogs.
- 3 When students understand what to do, give them time to complete the first ten-frame.

Be sure they understand that the second ten-frame on the sheet is for use at the end of the month. For today, they will only color in the boxes in the first ten-frame and write an equation to match.

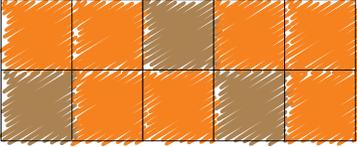
May | Calendar Collector Activity 4

NAME \_\_\_\_\_ | DATE \_\_\_\_\_

 **Cat or Dog?**

Every two weeks, color in the boxes on a ten-frame to show how many cats and how many dogs you got. Use orange for the cats and brown for the dogs. Write an equation below each frame to show the number of cats, the number of dogs, and the total.

**Week 2**



- 4 Continue spinning the Cat & Dog Spinner, adding the designated card to the Our Month in School chart, recording an equation on the Cat & Dog Record Sheet, and marking the graph each day.
  - You will need to post two fresh copies of the Cat & Dog Record Sheet midway through the month.
  - Take a few minutes every so often to discuss the cumulative results of this investigation.
    - » Is the arrow landing more often on the cat or the dog?
    - » Is either animal way ahead, or are they about even? If there is a sizable difference, why might that be?
    - » How many times has the arrow landed on the cat? On the dog?
    - » How many more are there of one animal than the other so far?
  
- 5 When you reach the end of the last week in May, take a bit of extra time to talk with students about the data they collected.
  - As they look at the graph, the cards in the pocket chart, and their own data collection sheets, are they surprised by the results? Why or why not?
  - On which of the two animals did the arrow land most often?
  - How many times did the spinner land on the cat? How many times on the dog?
  - How many more are there of one animal than the other? Is the difference very big, or just 1 or 2 apart? If the difference is sizable, why might that be?



# May Days in School

## Hopping by Tens on the Number Line

### Overview

The Days in School workout continues as a short daily routine for most days this month. During the activities, the teacher works with students to build a number line on the floor of the classroom and then use it to play a couple of very simple games.

### Skills & Concepts

- Count to 100 by ones and by tens (K.CC.1)
- Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name (K.CC.4a)
- Identify the number of objects as the last number said when counting a group of objects (K.CC.4b)
- For any number from 1 to 9, find the number that makes 10 when added to that number (K.OA.4)
- Model with mathematics (K.MP.4)
- Look for and express regularity in repeated reasoning (K.MP.8)

### Materials

Activities	Day	Copies	Kit Materials	Classroom Materials
<b>Activity 1</b> Building the Number Line	9		<ul style="list-style-type: none"> <li>• plastic links (10 or more in each of 2 different colors)</li> </ul>	<ul style="list-style-type: none"> <li>• blue masking tape (see Preparation)</li> <li>• wide-tip black permanent marker</li> <li>• ¾" adhesive dots in 2 different colors</li> <li>• Classroom Number Line sentence strips (prepared in September)</li> <li>• Chain-Link Measuring Strip</li> <li>• black erasable marker</li> <li>• pointer</li> </ul>
<b>Activity 2</b> Hopping on the Number Line	11		<ul style="list-style-type: none"> <li>• 1 die numbered 0–5</li> <li>• 1 die numbered 1–6</li> </ul>	<ul style="list-style-type: none"> <li>• dice shaker box (see Preparation)</li> <li>• masking tape number line created during Activity 1</li> <li>• pointer</li> </ul>
<b>Activity 3</b> Number Line Races	14		<ul style="list-style-type: none"> <li>• 1–4 Spinner</li> </ul>	<ul style="list-style-type: none"> <li>• 2 stuffed animals, toy vehicles, or other objects to use as game markers on the masking tape number line</li> <li>• masking tape number line created during Activity 1</li> <li>• pointer</li> </ul>

### Vocabulary

An asterisk [\*] identifies those terms for which Word Resource Cards are available.

- count\*
- number line
- number words for 1–10
- number words for the multiples of 10–100
- ones\*
- tens\*
- ten-frame

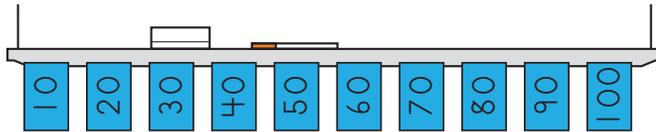
TM – Teacher Master, NCSB – Number Corner Student Book  
Copy instructions are located at the top of each teacher master.

### Preparation

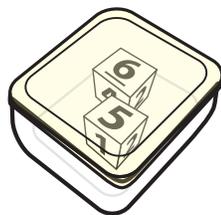
- Before you conduct Activity 1, lay down a 12-foot strip of blue masking tape, either in the center of your Number Corner discussion area, or along one side of the area.



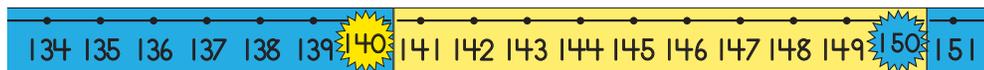
- In addition, cut 11 pieces of blue masking tape, each about 3 inches long. Using a wide-tipped black permanent marker, number each piece with a multiple of 10, starting at 0 and continuing through 100. Stick these small pieces of tape to a chalk ledge or some other surface where they'll be handy when you conduct the first activity.



- Place your numbered 0–5 and 1–6 dice in a small plastic storage container with a clear lid to make a shaker box for Activity 2.



- If you and your students completed a ten-frame and a chain of 10 links at the end of April, move them to the side along with all the rest of the completed frames and chains. If you still have a ten-frame and chain to complete from the previous month, leave them posted on the Number Corner display board until they're finished and then move them. Add new sentence strips to the Classroom Number Line as needed. (You'll probably be on your 16th strip at the start of May, depending on how many instructional days you've had so far.)



- If you started a new ten-frame near the end of April or will just be starting a new one on the first day of class in May, display the new or partly filled frame in a prominent location on the Number Corner display board, alongside the Chain-Link Measuring Strip from last month.

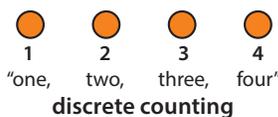
### Key Questions

Use the questions and prompts below as students continue to develop skill at counting by 1s and by 10s to 100 and beyond.

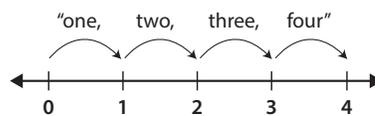
- How many dots/links did we have on the ten-frame/chain yesterday? Can you show with your fingers? How did you count the dots/links?
- How many dots/links will we have on the ten-frame/chain after we add the dot/link for today? How do you know?
- How many more dots/links do we need to add to the ten-frame/chain to complete the first row/set of 5? How many more to fill every box on the frame/measuring strip to 10? How do you know?
- Let's count the dots in the filled frames by 10s and the dots on the frame we're working on right now by 1s to find out how many days we've been in school so far this year.

### Mathematical Background

The Days in School routine continues through May, punctuated by three activities in which students practice counting by 10s to 100 as they hop along a number line taped to the classroom floor. The action of hopping from one point to another introduces and reinforces *interval counting*, or counting the number of equal intervals between two points. Interval counting is fundamental to length measurement, telling time, and also counting forward and backward as a way to add and subtract on a number line. This skill will become increasingly important in the years to come.



**discrete counting**  
Each verbalized number refers to the running total of the objects being counted.



**interval counting on the number line**  
Each number on the line indicates how many intervals that point is from 0. Each verbalized number refers to the running total of the intervals being counted or to the position of that point relative to 0.

 **Update**

Follow this update procedure with the class every school day including the days on which Days in School is one of the featured workouts.

**Procedure**

- Draw students' attention to the ten-frame currently on display, and ask students to show on their fingers how many dots there will be after the one for today is added.
- Have the student helper add a new dot to the ten-frame, and point to each dot as the class counts to confirm the new total.
- Repeat the same actions with the links in the chain.
- Ask students how many more dots are needed to fill the frame for a total of 10, and give them a few moments to find the answer. Then call on several students to give their answer and explain how they figured it out. (This can be done with the dots on the ten-frame some days, and with the links on the measuring strip on other days.)
- Have the class determine how many days they have been in school by counting the dots in the filled frames by 10s and the dots on the current frame by 1s.
- Record the number on the Classroom Number Line. (Students can count the links in the completed chains by 10s and the links currently being collected by 1s instead of the dots some days.)

**Notes**

If time allows some days, repeat one of the games introduced in Activities 2 or 3 with the class.

When you fill the first ten-frame and complete the first chain of ten for the month, move the frame and the chain off to the side with the rest of the filled frames and completed chains.

Post a new, empty ten-frame on the display board. However, leave the Chain-Link Measuring Strip in place, and use it as a mat on which to build the next chain of 10 links.

 **Activity 1**
**Building the Number Line****Day 9**

*You'll need the 12-foot strip of blue masking tape on the floor and a permanent black marker. You will also need to be able to remove 10 of the chains of plastic links from the wall to help create the number line with students.*

- 1 Ask students to gather in a cluster facing you rather than in a circle as they sit in the Number Corner discussion area.
- 2 Explain that you're going to work together to make a number line on the floor today, using the strip of blue masking tape you placed on the floor and some of the chains of plastic links you collected so far this year.
- 3 Draw students' attention to the collection of chains on the wall. Remove one of the chains and work with them to confirm that it is composed of 10 plastic links—5 of one color and 5 of another.
- 4 As students watch, remove 10 of the chains from the wall, and hand each to a student to hold.
  - Have students holding a chain, stand up side-by-side, forming a line across the front of their classmates.
  - When 10 students are standing, each holding a chain of 10 links, ask the class how many links there are in all. Give them a few moments to pair-share ideas, and then call on several volunteers to share their thinking with the class.

*Students Lots—maybe a hundred!*

*There are 10 little chains.*

*It has to be 100, because each little chain has 10.*

5 Hold up your pointer and explain that you are going to walk along slowly behind the line of students and point to each one in turn. As you do, the seated students will count the links in their classmates’ hands by 10s to confirm the total.

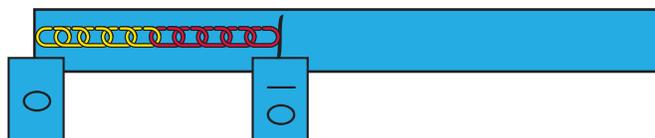
- Then place yourself behind the first student in line, hold your pointer above his head, and start the count with the class—10.
- Continue walking down the line, gesturing to each student in turn, as you and the class count—20, 30, 40, 50, 60, 70, 80, 90, 100.

6 Now draw students’ attention to the strip of blue masking tape on the floor. Explain that you are going to use the chains of plastic links to help mark and number the strip of tape by 10s.

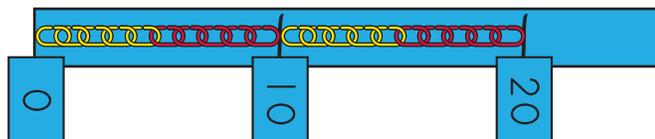
- Leaving the students who are standing still positioned in their line, move the rest of the students as needed so they will have a good view of the proceedings.
- Place the piece of masking tape numbered 0 at the end of the line you want to establish as the starting point.



- Call the first student in line to bring her chain of links to the strip of blue tape. Have her lay her chain down on the strip, even with the end of the tape.
- Work with students to count the links, again confirming that there are 10. Then make a mark with the permanent black marker on the tape at the point where the first chain ends, and place the piece of tape marked with a 10 beside the mark.



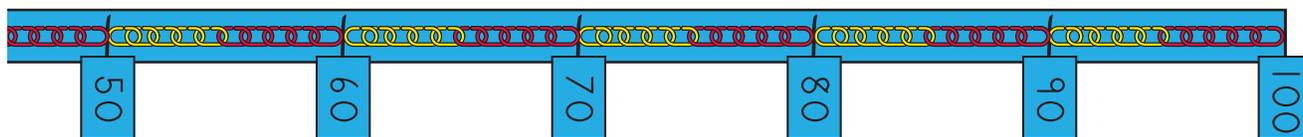
- Ask one of the seated students to hold the end of the chain at 0 so it doesn’t slip around. Invite the next student standing in line to bring his chain to the masking tape strip.
- Connect the second chain to the end of the first and talk with the students about how many links are now sitting on the tape. Count the links by 10s, and again by 1s with the class to confirm that there are 20 in all.
- Mark the strip, and place the piece of tape marked with a 20 beside the mark.



7 Repeat the actions described in step 6 until the masking tape number line is measured and numbered by 10s through 100 and all students are seated.

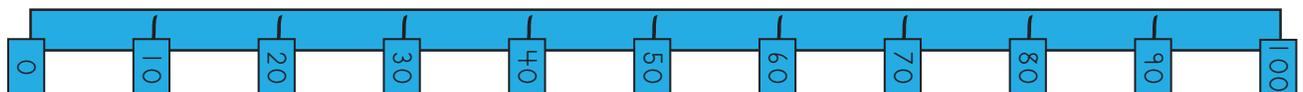
- By the time the third or fourth student places her chain on the strip of tape, you can speed things up by having students count the links by 10s only, rather than dropping back to recount them by 1s each time a new chain is added.

- Trim away any extra tape at the end of the strip.



- 8 Finally, have several students help you lift the long chain of 100 links off the masking tape strip, leaving a giant number line marked in multiples of 10.

Explain to students that they're going to use this number line to play some games later in the month.



*While you'll want to break the chain back into sections of 10 and return them to the wall display, consider leaving the chain of 100 intact for a few days before doing so. During this time, you might encourage students to investigate the chain, stretching it full length on the floor, laying it beside the masking tape number line, recounting the links to confirm that there are really 100, and so on.*

*You can also encourage students to practice hopping the length of the masking tape number line, counting by 10s as they jump from one mark to the next.*



## Activity 2

### Hopping on the Number Line

Day 11

*In addition to the masking tape number line, you will need the dice shaker box containing two dice, one numbered 0–5 and the other numbered 1–6, and a pointer.*

- Draw students' attention to the masking tape number line they helped build the other day. Explain that you're going to play a hopping game on the line today.
  - Let students know that in a minute, you're going to choose the first hopper.
  - The first hopper will stand at the end of the number line marked with a 0.
  - You will roll the dice to see how many hops that student gets to take along the line, and everyone will count as the hopper hops.
- Select the first hopper. Have that student position himself at the end of the blue masking tape number line marked with 0.  
Shift the rest of the students as necessary so everyone has a good view of the line and the hopper.
- Select another student to roll the dice shaker box and report the two numbers that come up on the dice.
- Have the class add the two numbers that are rolled to determine how many hops the student standing on 0 gets to take along the line.
- Ask students to determine where the hopper will land along the line—which multiple of 10—before he hops.  
Restate the number of hops the hopper is going to take, give students a few moments to pair-share ideas about where the hopper will land, and then call on several volunteers to share and explain their thinking.

*Teacher* You've rolled a 2 and a 3. What is 2 plus 3? Can you show me on your fingers? That's right—it's 5. That means we're going to take 5 hops along our giant number line. We need to land on one of the 10 numbers each time we hop. Where will we land if we start at 0 and take 5 hops? Talk to the person next to you, and then I'll call on people to share their thinking.

*Zane* I think he'll get to 40.

*Teacher* Can you tell us how you're thinking about that?

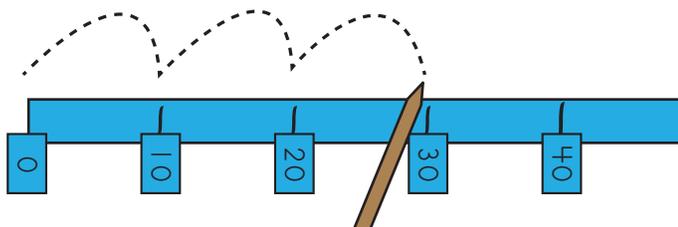
*Zane* I counted on my fingers, like 0, 10, 20, 30, 40. See—5 hops.

*Amelia* But you don't start on 0!

*Teacher* What do you mean?

*Amelia* It's like when you play a game. You have to hop up to the next number, so the first hop would get on 10, not 0.

The dialog above reflects the fact that some students may count the numbers on the line, rather than the intervals between the numbers in making their predictions. If this issue emerges in your classroom, remind students that in working on the number line, they need to count each hop forward from one number to the next as one. Use your pointer to model this if necessary.



- 6 After a few students share their thinking, have the hopper make the designated number of hops along the line as the rest of the class counts by 10s.
- 7 When the hopper reaches his destination on the line, have him sit back down with the rest of the class.
- 8 Repeat steps 2–7 as many times as time allows, choosing new students to hop and roll the dice each time.

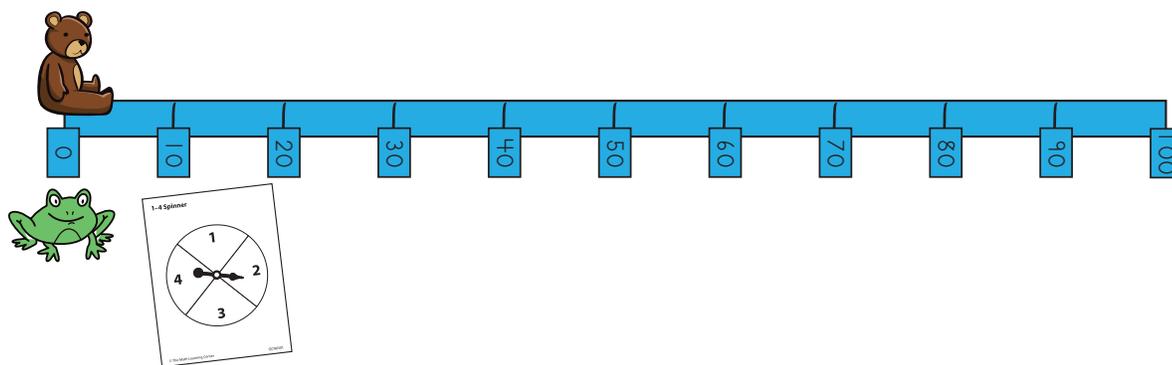
Consider leaving the pointer and the dice shaker box out and available to students so they can play the game on their own over the next few days.

## Activity 3

### Number Line Races

**Day 14**

- 1 Draw students' attention to the masking tape number line. Explain that you're going to play a new game on the line today.
- 2 Show students the 1–4 Spinner and the two stuffed animals (or other objects you selected to serve as game markers), and briefly explain the game.
  - Set the two stuffed animals on either side of the masking tape number line, at the 0 mark.
  - Explain that these two animals are going to race to see which can be the first to reach the 100 mark on the line.
  - Let students know that they'll work as a team against you to play the game, and let them choose which stuffed animal they want.



3 Take the first turn.

- Spin the 1–4 Spinner and read the number where the arrow lands with students.
- Select a student to move your stuffed animal the designated number of hops down the line as you and the rest of the class count by 10s.

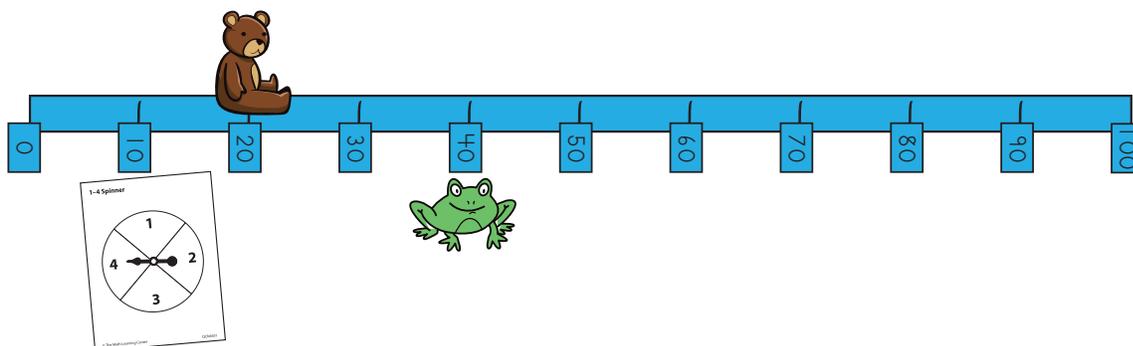
**SUPPORT** Have students use their fingers to track the number of hops as they count by 10s.

4 Invite students to take their turn.

Select students to spin the spinner for the class and move their stuffed animal the designated number of hops.

5 Discuss the results so far.

- Which animal is ahead? By how much?
- How many more hops will it take each animal to reach 100?



*Students* We're ahead!

*Frogs* are better at hopping than bears!

We're on the 40, and Teacher is only on the 20.

*Teacher* How far ahead of me are you?

*Student* We're 2 hops more than you.

*Teacher* How much is that if you're counting by 10s?

*Students* 10, 20!

We're 20 ahead of you.

You can spin a 2 next time, and then you can catch up with us.

6 Continue taking turns with students to spin and hop until one of the animals lands on or passes the 100 mark.

7 After one team wins, play again if time allows.

Consider leaving the animals and 1–4 Spinner out and available to students so they can play the game on their own when they have time this month.



# May Computational Fluency Fives Up

## Overview

This month's Computational Fluency workout features a card game in which students search for combinations that make 5. During the first activity, the teacher introduces or reviews the game by playing it with the whole class. During the second activity, students play the game in pairs.

## Skills & Concepts

- Count forward from a given number, rather than starting at 1 (K.CC.2)
- Represent addition with fingers, verbal explanations, numbers, or equations (K.OA.1)
- Decompose numbers less than or equal to 10 into pairs in more than one way (K.OA.3)
- For any number from 1 to 5, find the number that makes five when added to that number (K.OA.4)
- Fluently add within 5 (K.OA.5)
- Make sense of problems and persevere in solving them (K.MP.1)
- Look for and express regularity in repeated reasoning (K.MP.8)

## Materials

Activities	Day	Copies	Kit Materials	Classroom Materials
<b>Activity 1</b> Introducing Fives Up	4		<ul style="list-style-type: none"> <li>• Ten-Frame Dot Cards, 1 deck (see Preparation)</li> <li>• Number Cards, 1 deck (see Preparation)</li> </ul>	<ul style="list-style-type: none"> <li>• student whiteboards, markers, and erasers (class set)</li> </ul>
<b>Activity 2</b> Playing the Game in Pairs	8, 13		<ul style="list-style-type: none"> <li>• Ten-Frame Dot Cards, 8 decks (see Preparation)</li> <li>• Number Cards, 8 decks (see Preparation)</li> </ul>	<ul style="list-style-type: none"> <li>• marker</li> <li>• student whiteboards, markers, and erasers (class set)</li> </ul>

TM – Teacher Master, NCSB – Number Corner Student Book  
Copy instructions are located at the top of each teacher master.

## Preparation

Prepare a deck of cards for Activity 1, as well as a deck of cards for each pair of students to use during Activity 2:

- Go through each deck of Ten-Frame Dot Cards and each deck of Number Cards and remove the cards that show quantities or numerals 6 or greater, and set aside those cards for now.
- Combine half the 0–5 cards from a deck of Ten-Frame Dot Cards (2 of each quantity 0–5) and half the 0–5 cards from a deck of Number Cards (2 of each numeral 0–5) to create a smaller deck of 24 cards that includes two ten-frame and two numeral cards for each number 0, 1, 2, 3, 4, and 5.
- The 8 decks of Ten-Frame Dot Cards and 8 decks of Number Cards will enable you to create as many as 16 smaller decks, or enough for 32 students. If you have more than 32 students, some may need to play the game in groups of three rather than pairs during Activity 2.

## Mathematical Background

The Common Core State Standards ask that kindergartners add and subtract fluently within 5 by the end of the school year, but what does fact fluency look like in kindergarten? Students at any grade level are said to be fluent with facts when they display *accuracy* (the correct answer), *efficiency* (a reasonable amount of steps in about 3 seconds without resorting to counting by 1s), and *flexibility* (using strategies such as counting on or working from a very familiar fact such as  $2 + 2$  to solve a less familiar fact such as  $2 + 3$ ). Because fluency is linked to speed, we often assess it using some version of timed testing, but this method is not

## Vocabulary

An asterisk [\*] identifies those terms for which Word Resource Cards are available.

add\*/addition

compare\*

equal\*

greater than\*

less than\*

number words 0–5

plus

sum or total\*

ten-frame

recommended with kindergartners or even first graders, some of whom aren't yet able to write 20 random numbers in a minute, let alone 20 correct answers to a set of facts.

We can get at kindergartners' accuracy, efficiency, and flexibility by watching as they play games like Fives Up. In this game, teams or partners take turns drawing cards from a stack and looking for combinations that make 5. If, as you play the game with the class, you draw a 3 and then ask students to show on their fingers the number they hope to draw on their turn, you have only to look around the group to see who pops up 2 fingers instantly to get some sense of their fluency with combinations of 5. If you circulate as students play the game in pairs, you can get a very quick read on their comfort with combinations that make 5 by watching carefully and posing questions such as the ones listed directly below. As with many things in kindergarten, the most accurate measure of fact fluency involves direct observation and interaction rather than written assessments.



## Activity 1

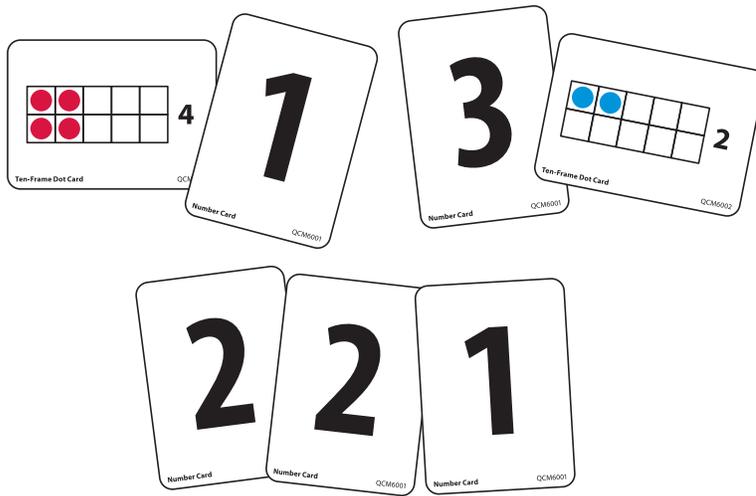
### Introducing Fives Up

### Day 4

*Students will each need a whiteboard, marker, and eraser. You will need one of the decks you prepared by combining Ten-Frame Dot Cards and Number Cards.*

- 1 Have your students pick up the materials they will need for this activity and seat themselves in a circle in the Number Corner discussion area.  
Ask them to place their materials on the floor safely in front of themselves until needed.
- 2 Introduce the activity by explaining that you have a game to share with them today.
  - This game will help students add numbers together to make 5.
  - You will play as a class today, and later in the month, students will play the game in pairs.

*If you use Bridges as your core math program, this will be a review, as Fives Up was introduced as a Work Place earlier in the year.*
- 3 Explain that the problem in this game is to find cards that can be added together to make a total of 5. If you can do so, you get to take the cards.
- 4 Use the cards to show and discuss several examples (such as cards showing 4 dots and the numeral 1, or 2 dots and the numeral 3, or cards showing the numerals 2, 2, and 1).  
Be sure to show at least one counterexample as well, such as cards showing 3 dots and the numeral 4.



**Key Questions**

To ascertain students' fluency with facts to 5, pose questions like the following as you teach or review Fives Up with the class and as you circulate to observe students playing the game in pairs.

- I see that your partner pulled up a card with 2 (0, 1, 3, 4) dots on it. What number or dot card do you need to pull up on your turn to make 5?
- I see that you and your partner have turned up 2 twos so far. What do you get if you add those together? How many more do you need to make 5?
- I see that you and your partner have turned up a 2 and a 4. Why can't you make 5 with those two cards? What cards could you turn up that would allow you to make 5?

5 Ask students to turn to the people sitting nearest them and explain the problem they need to solve in this game.

Then invite a few volunteers to share their thoughts with the group.

*Students We have to make 5.*

*I remember this game, but before, we used all dot cards.*

*We have to figure out if there's two cards that make 5, like 4 and 1.*

*It could be more than two cards.*

6 Mix the deck of cards and place them in a stack face-down in the circle where all can see.

7 Invite a student to take the first card from the stack and turn it up so everyone can see it. Discuss the amount.

Unless the card shows the numeral 5 or a ten-frame with 5 dots, talk with students about how many more would be needed to make a total of 5.



*Teacher What did she draw for the class?*

*Students Four!*

*Teacher Can you make 5 with just that card?*

*Students No!*

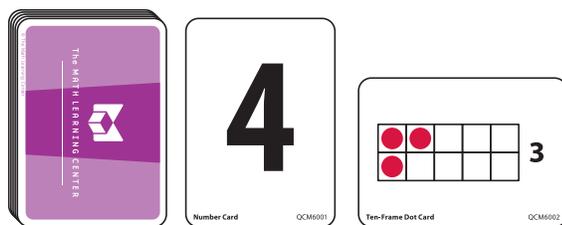
*You need 1 more.*

*If it was just 1 more, it would be 5.*

*Teacher I hope I get a 1 when I take my turn, then.*

8 Turn up the next card and place it next to the students' card. Have students talk with the people nearest them about whether or not you can make 5 with the two cards.

After a few moments, call on volunteers to share their thinking with the class.



**Students** *You can't make 5 with those cards.*

*If you put them together, it's 7 because 4... 5, 6, 7.*

*It's too much!*

**Teacher** *I can't make 5, so we'll leave both cards on the floor where they are.*

- 9 Before the next student turns over a card, discuss the card(s) they could draw that would allow them to make a combination of 5.

Be sure students understand that they can combine the card they draw with any card or cards that are already out.

**Teacher** *So far, neither team has been able to make a combination of 5. Before your team turns over the next card, let's think. What card do you hope you get?*

**Students** *One with 5 dots!*

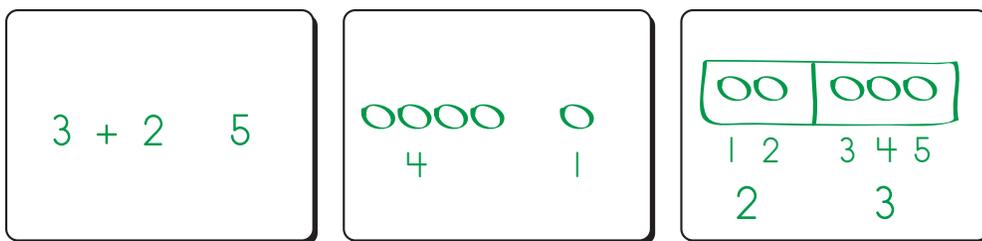
*If we get 2 dots, we can put it with 3. That will make 5.*

**Teacher** *Do you agree? Thumbs up if you think 3 and 2 will make 5. How about another idea?*

**Student** *If we get a 1, can we put it with the 4?*

**Teacher** *Yes, you can make 5 with any card that's there. And remember, you can even use more than one card!*

- 10 Play back and forth with the class, and conduct a play-by-play discussion, until all the cards are used and no more combinations of 5 can be made.
- 11 At the end of the game, explain that the team with the most cards is the winner.
- Can the students predict which team will win?
  - How can you find out for sure?
- 12 Work with the class to lay out the two sets of cards side-by-side in parallel lines, matching them one for one, so it is easy to see which team has the greater amount.
- Ask students to compare the two sets using such terms as *greater than*, *less than*, or *equal to*.
  - Then have the class count each set, and compare the two in terms of how many more than and how many less than.
- 13 When the winning team is determined, ask students to use numbers or drawings on their whiteboards to show one way to make 5.
- As they finish, have them share and compare their work with the people sitting nearest them.
  - Invite several volunteers to hold up their boards, one at a time, and explain their work.



*Students I know 3 and 2 makes 5.  
I made 4 dots, and then it's 1 more to make 5.  
I made 5 dots and then put them in two boxes. It's 2 and 3.*

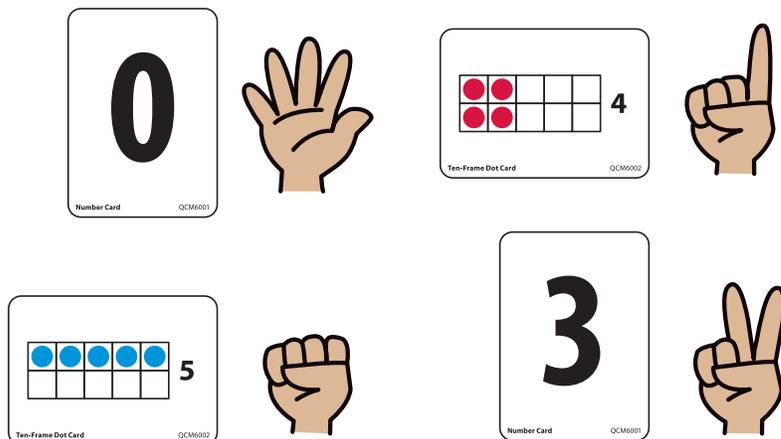
## Activity 2

### Playing the Game in Pairs

Days 8, 13

You will need a half-class set of the card decks you prepared by combining half sets of Ten-Frame Dot Cards and Number Cards. Students will each need a whiteboard, marker, and eraser the second time you conduct this activity.

- 1 Show students the decks of cards you prepared, and let them know that they're each going to play the game of Fives Up with a partner in a few minutes.
- 2 Review with students that the goal of Fives Up is to collect as many combinations of 5 as possible. Then do a short warm-up with the group.
  - Mix the cards in one of the prepared decks as students watch, and then place the stack face-down on the floor.
  - Explain that you're going to draw the card from the top of the stack and hold it up for everyone to see.
  - As soon as they see what's on the card, students should hold up their fingers to show how many more it would take to make 5.
  - Practice a couple of times, and then draw a star on the board or a piece of chart paper. Cover it with your hand and explain that this is the "silent star." When it's showing, no one can talk, not even the teacher.
  - Let students know that you're going to take your hand off the star in just a few moments, and see if you can go through about half the deck in silence, holding up the cards by 1s as they show with their fingers how many more it would take to make 5 each time.



- 3 After students complete the warm-up, remove the silent star from view, and briefly review the game by demonstrating a few turns with one student as your partner.

Remind students that when all the cards are gone, or they can't make any more combinations of 5, they need to line up their cards or count them to find out which partner won.

- 4 When it appears that most students know what to do, call one pair at a time to come get one of the prepared decks from you and find a good place in the room to play the game.

Circulate as students are playing to provide assistance and observe them at work.

*You might focus your attention on the students for whom you know least about their fluency with addition combinations of 5.*

- 5 Have students who finish their first game mix their cards and play again until no more time remains in the activity.

- 6 When you conduct this activity the second time, have students bring whiteboards, markers, and erasers to the Number Corner discussion area. Repeat the warm-up described in step 2, but this time, have students write a number on their whiteboard rather than holding up their fingers to show how many more are needed to make a total of 5 in response to each card you show.

Have students return their whiteboards, markers, and erasers to the proper containers as they come up in pairs after the warm-up to get their decks of cards.

# May Number Line Fun with Fifty

## Overview

Students explore patterns and relationships on a 1–50 number grid as they play a counting game and work with clues from the teacher to find certain numbers. They make their own 1–50 number line and grasshopper pointer to take home and share with their families during the upcoming summer vacation.

## Skills & Concepts

- Count to 50 by 1s (K.CC.1)
- Count backward from any number in the range of 50 to 1 (supports K.CC)
- Count forward from a given number, rather than starting at 1 (K.CC.2)
- Read numbers from 1 to 50 (supports K.CC)
- Construct viable arguments and critique the reasoning of others (K.MP.3)
- Look for and make use of structure (K.MP.7)
- Look for and express regularity in repeated reasoning (K.MP.8)

## Materials

Activities	Day	Copies	Kit Materials	Classroom Materials
<b>Activity 1</b> The Nifty Fifty	3		<ul style="list-style-type: none"> <li>• Number Line pocket chart</li> <li>• Number Line Display Cards 31–50 (see Preparation)</li> <li>• Number Line Display Cards 1–30</li> <li>• One Hundred Grid (see Preparation)</li> </ul>	<ul style="list-style-type: none"> <li>• erasable marker</li> <li>• 12" × 18" construction paper (1 piece, see Preparation)</li> </ul>
<b>Activity 2</b> Playing Cross Out Fifty	5, 15	<b>TM 4</b> 1–50 Number Grid (optional)	<ul style="list-style-type: none"> <li>• One Hundred Grid</li> <li>• 1 die numbered 1–6</li> </ul>	<ul style="list-style-type: none"> <li>• erasable markers OR crayons in red and blue</li> <li>• dice shaker box (see Preparation)</li> </ul>
<b>Activity 3</b> Coloring Rainbow Numbers on the Fifty Grid	7, 12	<b>TM 4</b> 1–50 Number Grid <b>NCSB 24</b> 1–50 Number Grids		<ul style="list-style-type: none"> <li>• crayons (the teacher and each student will need red, orange, yellow, green, blue, and purple)</li> </ul>
<b>Activity 4</b> Making Hap's Number Line	16, 17, 18	<b>TM 5</b> Hap's Number Line <b>TM 6</b> Hap Pointer Cutouts <b>TM 7</b> Hap's Note Home		<ul style="list-style-type: none"> <li>• 6" × 9" manila envelopes, 1 per student (see Preparation)</li> <li>• green copy or construction paper (see Preparation)</li> <li>• clear tape or masking tape</li> <li>• glue or glue sticks (class set)</li> <li>• scissors (class set)</li> <li>• crayons (class set)</li> <li>• craft sticks (class set of 1 per student)</li> </ul>

TM – Teacher Master, NCSB – Number Corner Student Book  
Copy instructions are located at the top of each teacher master.

## Vocabulary

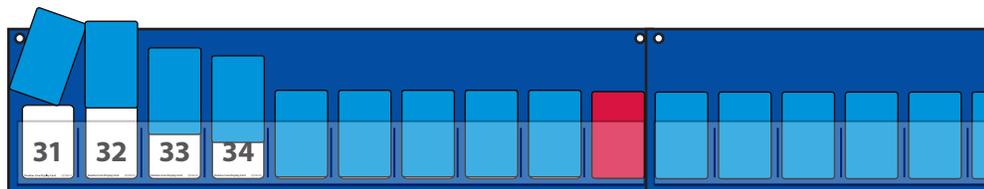
An asterisk [\*] identifies those terms for which Word Resource Cards are available.

- after\*
- before\*
- between\*
- column\*
- digit\*
- equal\*
- least\*
- most\*
- number grid
- number words for 1–50
- row\*

## Preparation

### Number Line Pocket Chart

The Number Line pocket chart setup remains the same as last month, with the numbers 31–50 inserted in the pockets and a blue or red card covering each.



### One Hundred Grid

Locate the One Hundred Grid in your Number Corner Kit. Post the mat in your Number Corner display area at a height the students can see and reach. Cover the lower half of the mat with a piece of construction paper to mask the numbers 51–100.

**Note** The One Hundred Grid figures prominently in Activities 1 and 2 this month. As an alternative to using the mat posted in the Number Corner display area for Activity 2, you can run 2 copies of the 1–50 Number Grid Teacher Master to use at the document camera instead.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

### Dice Shaker Box

Place your numbered 1–6 die in a small plastic storage container with a clear lid to make this month’s dice shaker box for Activity 2.

### Hap’s Number Line and Student Grasshopper Pointers

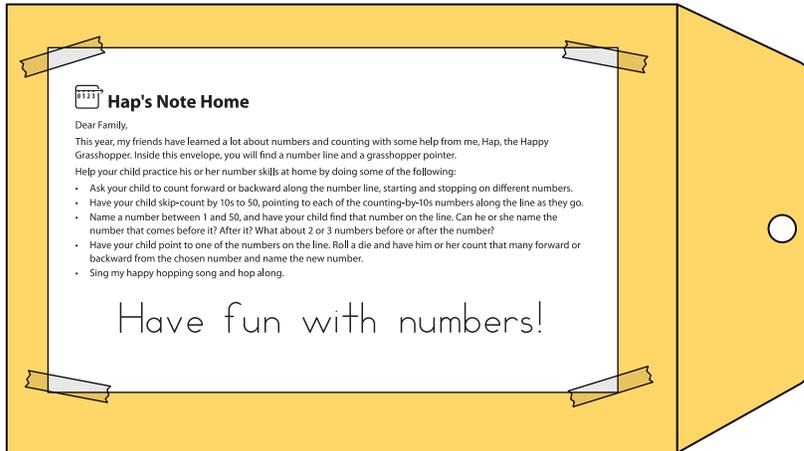
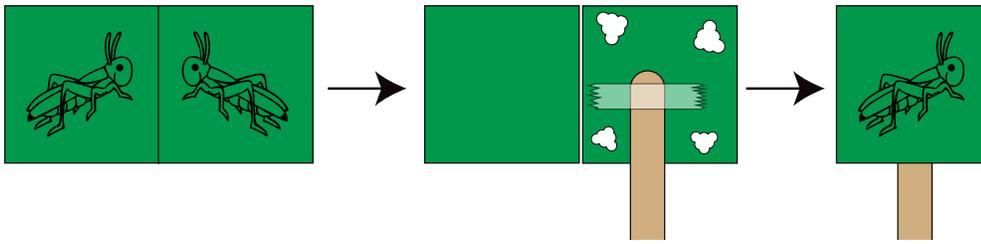
Run a class set plus a few extras of the Hap’s Number Line Teacher Master. Run copies of the Hap Pointer Cutouts Teacher Master on green copy paper or construction paper—enough for each student to have a left and right view as shown. (There are enough grasshoppers on one page for six students.) Cut these sheets into sections along the heavy lines. Students will fold on the dotted line, insert a craft stick between the two grasshopper pictures, and glue in place to make a grasshopper that is able to “hop” in both directions. Run a half-class set of the Hap’s Note Home Teacher Master, cut in half, and glue or tape to one side of a 6” × 9” (or similar sized) manila envelope for each student.

## Literature Connections

Your students may enjoy these books while thinking about numbers to 50.

*Captain Swifty Counts to 50 Isn’t That Nifty*  
by David Gantz  
This book features Captain Swifty and his animal friends counting from 1 to 50.

*Green Eggs & Ham*  
by Dr. Seuss  
This popular story was written using exactly 50 different words.



**Key Questions**

Use these questions to help your students think about number relationships on the One Hundred Grid.

- What patterns do you notice on the One Hundred Grid?
- How is the One Hundred Grid like our Classroom Number Line? How is it different?
- What do you notice about the numbers you land on when you count by 10s?
- Where do we see the twenties (teens, thirties, forties, fifties) number family on the grid?

**Mathematical Background**

The Common Core State Standards for Mathematical Practices asks students to look for, interpret, and identify patterns and structures. A number grid or chart such as the One Hundred Grid used this month provides a valuable tool for encouraging students to explore the patterns and numbers of our base ten system. Students can use the chart to find relationships between numbers such as seeing a small number like 5 in relation to a larger number such as 50. The organization of the number grid in rows of 10 also helps students develop an initial understanding of place value. With time and experience, they see that 42 is the number 10 more than 32, and so 42 is directly below 32 on the grid. Likewise the number 33 is next to 32, and it is 1 more than 32. This visual understanding of quantity is important to developing number sense in young learners.

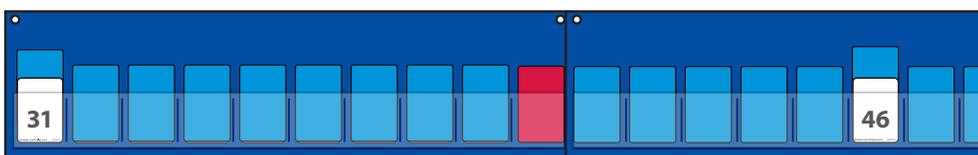
**Activity 1**

**The Nifty Fifty**

**Day 3**

Post the One Hundred Grid with the numbers 51–100 covered, as described in the Preparation section, in the Number Corner display area before you conduct this activity. You will also need the Number Line Display Cards from 1–30 in a stack, ready to use at the end of this activity if time permits.

- 1 Lift two cards on the Number Line pocket chart, and invite students to choral count forward and backward between the two numbers while you point to the pockets.



- 2 Point to the first red pocket and ask students to name the number. Then lift the card to reveal the numeral 40.

- 3 Ask students to whisper to a partner what number they think is behind the last red card. How do they know?
- Call on a couple of students to share their thinking with the class.
  - Invite a student helper to pull up the red card to reveal the number 50.

*You can ask students to gently slap their hands on their thighs to produce a drumroll while the helper reveals the hidden number.*

- 4 Then introduce the One Hundred Grid to the class.
- Ask students to look for the number 1 on the mat and to give thumbs up when they find it.
  - Choose a student helper to point it out.
  - Then do the same for the number 50.
  - Explain that the numbers above 50 are covered for now because the numbers in the Number Line pocket chart only go up to 50.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



- 5 Invite students to look quietly at the One Hundred Grid to see what else they notice. Ask them to give thumbs up when they have an observation to share. Give students a minute to pair-share observations. Then invite a few students to share their observations with the group. As students share, reinforce their observations using the words *column* and *row*.

*Student* The numbers go 1, 2, 3, 4, 5, 6, 7, 8, 9 like counting.

*Teacher* So you're seeing that each row that goes across (pointing to the numbers) has the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9.

*Student* You can count by 10s going down.

*Teacher* The decade numbers, 10, 20, 30, 40, 50 (pointing to the numbers) go down in this column.

- 6 Have students practice finding random numbers on the One Hundred Grid.
- Explain to students that they are going to practice spying numbers on the One Hundred Grid. You will reveal a number on the Number Line pocket chart, and they are to spy it quietly with their eyes on the One Hundred Grid.
  - Lift a card on the Number Line pocket chart and ask students to name the number.
  - Next ask students to find this number with their eyes on the One Hundred Grid and to give thumbs up when they see it.
  - Call on two or three students to explain how they found the number.

*Student I knew it was in the column with all of the 4s, and it had to be with the thirties numbers.*

- Then choose a student helper to circle the number on the mat using a washable marker.
  - Repeat with four or five additional numbers.
- 7 If time permits, select additional numbers from your stack of 1–30 Number Line Display Cards for students to find on the One Hundred Grid.



## Activity 2

### Playing Cross Out Fifty

**Days 5, 15**

You can either use the One Hundred Grid posted in the Number Corner display area for this game or a copy of the 1–50 Number Grid Teacher Master at the document camera. If you use the One Hundred Grid, you will need two erasable markers, one in red and the other in blue. If you use the teacher master, you will need crayons in red and blue and a second copy of the master to use the second time you play the game.

- 1 Explain to students that today they will play a game to name and cross out all of the numbers to 50 on the One Hundred Grid.
- 2 Then explain the directions for the game, and decide which team—you or the class—will use the red marker or crayon, and which will use the blue.
  - Students will work together as a team, and you will be the other team.
  - You will take turns with the class to roll a die numbered 1–6 and cross out the designated number of squares on the mat in your team’s color.
  - After each turn by either team, students will say the names of the numbers crossed out.
  - Play will continue until all of the numbers to 50 are crossed out.
  - Then they will count the colored Xs to see which team crossed out the most numbers.
- 3 Choose a student to roll the die, name the number rolled, and cross out that many squares on the One Hundred Grid (or the 1–50 Number Grid Teacher Master) by making Xs, using their color.  
Ask the class to name the numerals that are crossed out.
- 4 Take your turn to roll the die and cross out the designated number of squares on the One Hundred Grid using your color.  
Then ask students to name the numbers you crossed out.

100 Number Mat by ts

<del>1</del>	<del>2</del>	<del>3</del>	<del>4</del>	<del>5</del>	<del>6</del>	<del>7</del>	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

- 5 Continue taking turns with the class to roll the die, cross out squares, and name the numbers that get crossed out each time.

**CHALLENGE** Each time a team rolls, before the numbers are crossed out, ask students to figure out the last number that will be crossed out on that turn and explain their thinking.

*Teacher* What number did I cross out last on my turn?

*Students* Seven!

We crossed out 1, 2, and 3, and you got 4, 5, 6, and 7.

*Teacher* Will you please roll for the class and then tell us what number you rolled?

*Chaz* I got a 4 on the dice!

*Teacher* Talk to the person next to you, and see if you can figure out what number we'll be on when you cross out 4 squares on the mat. (Gives the students a few moments to discuss.) Who'd like to share with the class?

*Ana* We'll get up to 11, because 7...8, 9, 10, 11. I counted 4 on my fingers.

*Luis* I think 11 too. There are 3 more boxes in the top row, and then if we cross out 1 more, it will be 11.

- 6 Periodically during the game, take a few moments to count the number of squares crossed out by each team. Which team has crossed out the most so far? How many more has that team crossed out than the other team?

**CHALLENGE** Ask students to figure out how many more squares need to be crossed out to reach 50. How do they know? Can they prove it?

*Li* We have to cross out 22 more boxes. I counted them.

*Brent* I think it's 22 because there are 10 and 10 at the bottom. That's 20, and then 2 more after 28.

100 Number Mat by 1s

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

- 7 Play the game until all 50 squares are crossed out.
- 8 Count the squares each team crossed out and decide who won the game.
- Ask students to count how many squares they crossed out. Record the number.
  - How many squares did you cross out? Record the number.
  - Who crossed out the most?
  - Who crossed out the least?
  - If they add the two numbers together, how many squares were crossed out? How do they know?

**CHALLENGE** With input from the class, write an inequality statement about the two color amounts or write an addition equation about the two color amounts and the total number of squares.

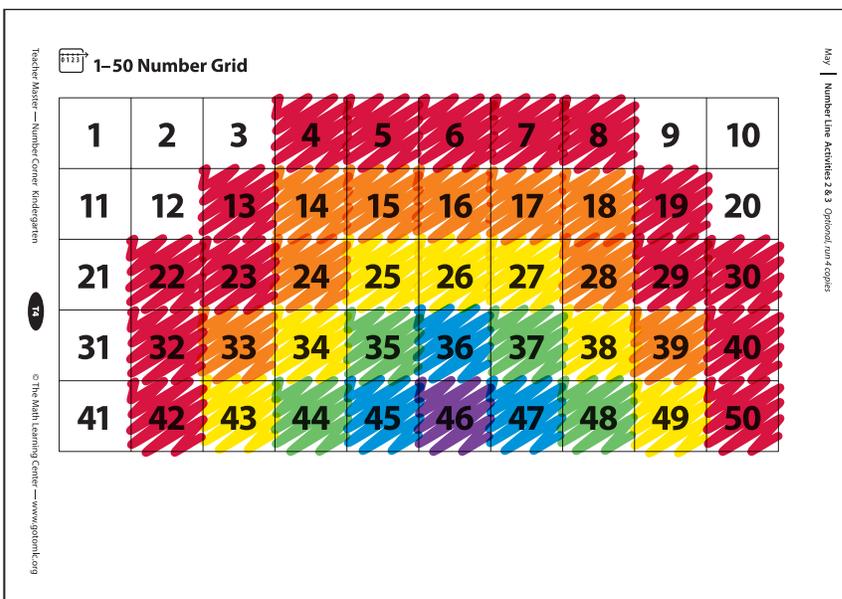
# Activity 3

## Coloring Rainbow Numbers on the Fifty Grid Days 7, 12

Students will need their Number Corner Student Books and red, orange, yellow, green, blue, and purple crayons for this activity. You may find it most convenient for students to sit at their table spots.

- 1 Display the 1–50 Number Grid Teacher Master and give students a few moments to examine the sheet quietly.
  - Then have students open their Number Corner Student Books to the 1–50 Number Grids page and put their finger on Grid 1.
  - Explain that they will use Grid 1 today and save Grid 2 for another day.
- 2 Invite students to point to the numeral 10 on their grid, and have them count by 10s with you, starting with 10 and counting to 50.
- 3 Next, use a yellow crayon to color in the numeral 25 on your grid.
  - Ask students to name the number you colored.
  - Have students use their yellow crayon to color in the numeral 25 on their own number grids.
- 4 Ask students to find the number that comes before 25 on their own grid and share their answer with the person sitting next to them.
 

When they confirm with one another that the answer is 24, ask them to color the box with 24 orange.
- 5 Continue to ask students to find numbers and color squares using the following number clues:
  - Color the number that is 10 ones and 9 more ones red (19).
  - Color the number that come between 34 and 36 green (35).
  - Color the number that comes after 44 blue (45).
  - Color the number that come between 45 and 47 purple (46).
- 6 If time and interest permits, continue asking students to color in the squares as you name numbers or give clues to complete a hidden picture rainbow as shown.



- 7 When you repeat this activity later in the month, use the following number clues.
- Ask students to color the number that  $3 + 1$  equals red (4).
  - Ask students to color the number that  $5 + 5$  equals orange (10).
  - Ask students to color the number that comes after 19 yellow (20).
  - Ask students to color the number that comes before 37 green (36).
  - Ask students to color the number that comes between 43 and 45 blue (44).
  - Ask students to color the number that is 10 ones and 5 more ones purple (15).
- 8 If time and interest permits, continue asking students to color in the squares as you name numbers or give clues to complete a hidden boat picture as shown.

Teacher Master — Number Corner: Kindergarten

1-50 Number Grid

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

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May | Number Line Activities 2.8.3 Optional Fun 4 Copy

## Activity 4

### Making Hap's Number Line, Part 1

Day 16

*This activity is broken into three parts, spanning three days.*

- 1 Provide each student with one copy of the Hap's Number Line Teacher Master. Ask students to look at the numbers on the sheet and share some brief observations.
- 2 Then invite students to count by 1s from 1–50 while touching each numeral. *Explain that just as when they are reading or placing numbers in the pockets on the Calendar Grid, they make the return sweep to the next row and the sequence continues.*
- 3 Next, ask students to find the numbers that represent the doors (the tens numbers) to the new decade number families.
  - Invite students to count by 10s from 10 to 50 while touching the decade numbers.
  - Ask students to circle the decade (10s) numbers with a crayon.
- 4 Explain to the class that they will be making a number line using the numbers from this 1–50 grid along with their very own grasshopper pointer during the next couple of days.

1	2	3	4	5	6	7	8	9	10	glue
11	12	13	14	15	16	17	18	19	20	glue
21	22	23	24	25	26	27	28	29	30	glue
31	32	33	34	35	36	37	38	39	40	glue
41	42	43	44	45	46	47	48	49	50	

- Model for the class how to cut around the  $10 \times 5$  number grid, leaving only the numbered squares and glue tabs as shown.  
*This will simplify making the number line during the next part of this activity.*
- Ask students to turn their paper over and write their name on the back of the page.
- Collect the papers and save them for Part 2.

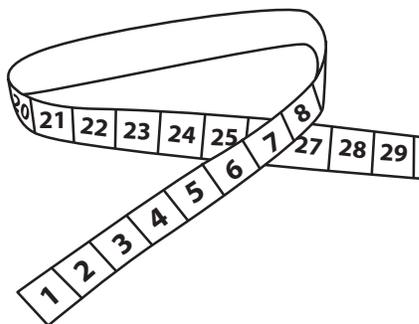
### Making Hap’s Number Line, Part 2

### Day 17

- Hand back the Hap’s Number Line student papers from Part 1, and demonstrate how to make the number line.
  - Using your own copy of the master, carefully cut each row of the grid apart from one end to the other, including the glue tabs.
  - Emphasize to start cutting under the 1 and to keep cutting the row clear across the paper.
  - Cut the remaining rows apart and have students count the total number of strips.

1	2	3	4	5	6	7	8	9	10	glue
---	---	---	---	---	---	---	---	---	----	------

- Once you cut the five strips apart, show students how to glue the sections together using the tab labeled “glue” while making sure the numbers are in the correct sequence.
- Finally, demonstrate how to loosely fold the number line, using the sections of 10 as guides to keep it manageable.



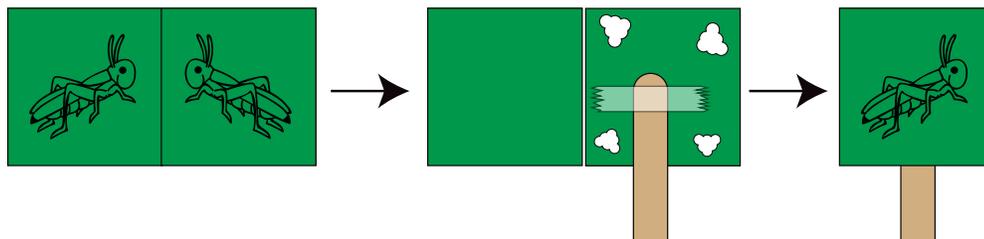
- Then have students each cut and assemble their own number line.
  - As students are cutting the strips apart, have them label the back of each with their name, or at least their initials. This will make it easier to sort things out if the strips at a table get mixed up or a number line falls apart once glued.
  - Circulate to provide assistance as needed.

- 5 As students finish, invite them to check each other's number lines making sure the numbers are in counting order from 1 to 50.
- 6 Collect the completed number lines and save them for Part 3.  
*You may find it helpful to place the finished number lines in the prepared 6" x 9" envelopes before beginning Part 3.*

## Making Hap's Number Line, Part 3

Day 18

- 1 Tell the class that today they will make their very own Hap, the grasshopper pointer, to hop along the number line they already made.
- 2 Demonstrate how to make the small grasshopper pointer.
  - Show students how to fold the grasshopper cutout in half on the dotted line separating the two grasshoppers.
  - Model how to place a craft stick between the folded cutout, tape it in place, and then glue the cutout closed over the stick.
  - Ask students to write their name or initials on both the grasshopper cutout and the craft stick.



- 3 Then invite students to begin working on the project.
  - Hand out a grasshopper cutout to each student.
  - Circulate to assist as needed.
- 4 When students finish making their pointer, invite them to get their number line and use it and the grasshopper pointer to count forward and backward while other students finish.
- 5 After all students finish, have them place their loosely rolled number line and grasshopper pointer into a prepared envelope to send home.

Be sure to point out the note on the envelope encouraging students to use their number line for a variety of activities after they take it home.



# May Assessment

## Number Corner Checkup 4

### Overview

In the closing weeks of the school year, the teacher conducts a short interview with each student and administers a two-page written assessment to the entire class. These two instruments comprise Number Corner Checkup 4, designed to help teachers ascertain students' skills with rote counting, combinations that make 5, teen numbers, describing measurable attributes of an object, composing shapes, and solving story problems.

### Skills & Concepts

- Count to 100 by 1s and by 10s (K.CC.1)
- Represent addition and subtraction with objects, fingers, drawings, numbers, or equations (K.OA.1)
- Add and subtract with sums and minuends to 10 (K.OA.2)
- Solve subtraction story problems (K.OA.2)
- Decompose numbers less than or equal to 10 into pairs in more than one way, and record the decompositions with drawings and equations (K.OA.3)
- Fluently add and subtract within 5 (K.OA.5)
- Decompose numbers from 11 to 19 into a group of 10 and some 1s (K.NBT.1)
- Describe several measurable attributes of a single object (K.MD.1)
- Compose simple shapes to form larger shapes (K.G.6)

### Materials

Assessments	Day	Copies	Kit Materials	Classroom Materials
<b>Number Corner Checkup 4, Part 1</b> Introducing the Interview	17	<b>TM T8–9</b> Number Corner Checkup 4 Interview Response Sheet <b>TM 10</b> Scattered Dot Cards for 0–5 <b>TM 11</b> Three Hexagons	• Double Ten-Frame Five-Wise Display Cards for 11–19	• pattern blocks (12 triangles, 6 trapezoids, and 9 blue rhombuses in a small tub) • a classroom object of interest to students (e.g., toy truck, stuffed animal, your coffee mug) • a backpack
<b>Number Corner Checkup 4, Part 2</b> Completing the Written Assessment	19	<b>TM T12–13</b> Number Corner Checkup 4 Written Assessment		• 2 trains of 10 single-colored Unifix cubes, each in a different color • 2 crayons to match the colors of the Unifix cubes • Unifix cubes for student use (see Preparation) • crayons (class set)

TM – Teacher Master, NCSB – Number Corner Student Book  
Copy instructions are located at the top of each teacher master.

### Preparation

- Run a copy of the Scattered Dot Cards Teacher Master on heavy paper or card stock. Cut the cards apart and mix them so they're in random order.
- Mix your set of Double Ten-Frame Five-Wise Display Cards thoroughly, and place them in a stack for use with the class when you introduce the interview tasks. (You'll use the cards for 11, 14, and 19 during the actual interviews with individual students.)
- Have a backpack handy, or plan to have students bring their own backpacks, for interview question 5. A similar object with several measurable attributes (length, width, weight, volume, etc.) may be substituted if you wish.

### Vocabulary

An asterisk [\*] identifies those terms for which Word Resource Cards are available.

add\*  
count\*  
heavy/heavier/heaviest\*  
hexagon\*  
length\*  
light/lighter/lightest\*  
long/longer/longest\*  
measure  
numbers  
ones\*  
pictures  
short/shorter/shortest\*  
story problem  
solve  
tens\*  
subtract\*  
weight\*

- Have students help you snap together trains of 10 Unifix cubes in single colors. Each student will need two trains in different colors for the written assessment.
- Consider running the two sheets for the Written Assessment back-to-back.
- Consider wearing a special hat when you are conducting individual interviews so other students know that you're not to be disturbed. The more colorful and attention-grabbing the hat, the better.

## Mathematical Background

Number Corner Checkup 4 is designed to provide a sense of how well students are responding to the instruction during Number Corner, specifically counting to 100 by 1s and by 10s, identifying the amount needed to make a total of 5 given any number 0–5, understanding teen numbers as 10 and some more, describing measurable attributes of an object, composing shapes, decomposing 8 into pairs in several different ways, and solving subtraction story problems. The interview should take about 15 minutes per student, while the written assessment will take about 20 minutes.

After conducting these assessments, you will be in a better position to report on students' math skills and concepts to families and the first grade teachers who will work with your students next year.

### Notes

The written assessment is two pages long this time. Examine both sheets before you conduct the assessment, and decide whether you want to have students complete both in one sitting or split the work so they complete the first page one day and the second shortly thereafter.

### Assessment Guide

See the Kindergarten Assessment Guide for scoring and intervention suggestions.



## Number Corner Checkup 4, Part 1



### About This Assessment

## Introducing the Interview

Day 17

- 1 Let students know that you will be talking with each of them about math for a few minutes sometime over the next couple of weeks.
  - Assure students that they will each get a turn.
  - Explain that you're going to ask them some questions so you can find out more about what they know about math.
  - Let them know that this will help you do a better job of telling their next year's teachers what they already know and what they still need to learn.
- 2 Show the class copies of the Number Corner Checkup 4 Interview Student Response Sheets, and explain how you will use them.
 

Explain that you will be reading questions to them from these sheets and also writing down some of the things they tell you.

*It is not important that students be able to see the actual items on the sheet.*
- 3 Then share an example of each of the questions you will ask during the interview and have students practice responding.
  - Explain that the first thing you will do when you meet with each student is ask him or her to count to 100 by 1s, and then again by 10s.
  - Next, explain that you're going to show them some cards with dots scattered on them. When they see one of these cards, they're to report how many dots they see and how many more it would take to make 5 dots in all on that card. Practice this with a couple of the Scattered Dot Cards you prepared.

While it is very challenging to find the time to interview each student for 5 minutes, it is almost impossible to gauge a kindergartner's skill levels in any other way. It is helpful to let the students know in advance that you'll be visiting with each of them sometime in the next few weeks. You can also save some time by introducing the interview tasks to the entire class as described here, rather than starting from scratch with each student.

- Next, hold up one of Double Ten-Frame Five-Wise Display Cards and ask students to report how many dots they see. Then take a minute to look at the card more carefully. How many dots are there in the top row? How many in the bottom row? How many in all? Repeat this with several cards in the set to help students understand that there are 10 dots in the top row of every card. Students should also understand that they can count on from 10 or just report the total if they know what it is. They do not have to count every dot. In fact, you don't want them to.
  - Hold up the classroom object you selected for this activity and ask students to pair-share ideas about how this object might be measured. Then discuss their ideas, and let them know that you'll be asking them the same questions about a different object when you interview them.
  - Finally, show students a copy of the Three Hexagons Teacher Master. Explain that you're going to give them some pattern blocks and ask them to build the hexagon in three different ways. Take a few moments to have volunteers share how they might build one of the yellow hexagons using other pattern blocks in the set.
- 4 Conclude your introduction by telling students that you're excited to talk with each of them sometime soon.

As you begin conducting the interviews, keep the following points in mind.

- Most students are not likely to remember your introduction, and the practice you provided during the introduction is not likely to give any of them an advantage in terms of demonstrating skills they don't actually yet possess. However, your introduction will save you the time and trouble of having to explain to each student why you are doing the interview, and the preview may help students enter the situation with a little more confidence.
- Once you introduce the checkup interview to the class, you will start pulling individual students aside as time allows, perhaps during math stations, literacy centers, or recess. If your students have specials taught by other adults, such as gym, library, or music, you might be able to squeeze in a few interviews then as well.
- Since the time you have between now and the end of the school year may be severely limited, start with the students you know the least about or those who are of concern to you. Save the students with whom you're the most familiar, in terms of their math skills, for last, and look for other ways to collect the same information in case you're not able to conduct the interview with every student in the group.
- Consider labeling the Number Corner Checkup 4 Interview sheets with students' names, and putting the sheets in the order you plan to interview the students ahead of time.



## Number Corner Checkup 4, Part 2

### Completing the Written Assessment

Day 19

- 1 Seat students at their table spots or desks, and make sure they each have a pencil and some crayons, as well as two trains of 10 Unifix cubes, each train in a different single color.
- Let students know that you are going to ask them to solve a couple of story problems today and make some combinations to 8 with Unifix cubes.
  - Explain that although you usually ask them to work together, today they need to do their own work quietly so you can see what each of them can do.
  - You might want to move a few students to other locations so they have adequate privacy and a comfortable amount of working space before distributing students' papers.

**Note** If you're planning to administer the written assessment over 2 days, students won't need the Unifix cube trains and crayons until the second day.

- 2 Display your copy of the Number Corner Checkup 4 Written Assessment Teacher Master, and give each student a copy.
- 3 Using your copy of the sheet, show students how to write their name at the top on the line provided.
- 4 Administer the first item on the assessment.
  - Read the story problem at the top of the first sheet to the class.
  - Explain that they can use their fingers or Unifix cubes to help find the answer, but they need to draw pictures and write numbers or words to show how they figured it out.
  - Have students put their finger on the box next to the spider and explain that when they find the answer, they need to write it in the box.
  - Then read the problem a second time, and clarify the details as needed.

**SUPPORT/ELL.** Draw a picture of a spider and a hole on the board, and write the numbers 5 and 2 to help students remember the information they will need to represent and solve the problem.

  - When students understand what to do, give them time to work the problem.
  - Circulate while students are working to observe and provide assistance.
- 5 Repeat the actions outlined in step 5 to administer the second item on the assessment, another story problem.
- 6 If you decide to conduct the assessment over two days instead of one, collect students' papers as they complete the first page. If you are planning to conduct the assessment in one sitting, continue on to the next step.
- 7 Administer the third item on the assessment.
  - Read the student instructions to the class.
  - Use your own copy of the assessment, two trains of Unifix cubes, each in a different color, and two crayons in colors that match the Unifix cubes to demonstrate how to complete the task.

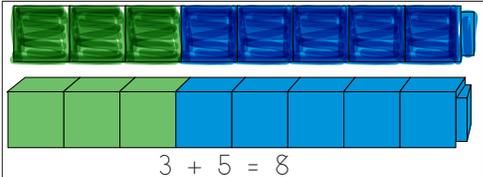
May | Assessment class set, plus 1 copy for display

NAME \_\_\_\_\_ DATE \_\_\_\_\_

**Number Corner Checkup 4 Written Assessment** page 2 of 2

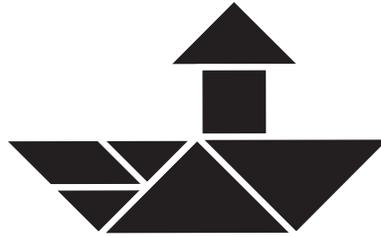
Instructions to the teacher: Give each student 2 trains of 10 single-colored Unifix cubes, each in a different color, and read the problem. Then model how to complete the task once, using a copy of the assessment. Have students complete the task independently.

**3** Use 2 different colors to make a train of 8. Color in the train to show how you made it. Write numbers to show how many there are of each color and how many in all.



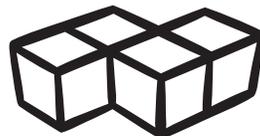
$3 + 5 = 8$

- When students understand what to do, give them time to complete the task.
- Circulate while students are working to observe and provide assistance, and collect their papers as they finish.



# Teacher Masters

KINDERGARTEN – MAY

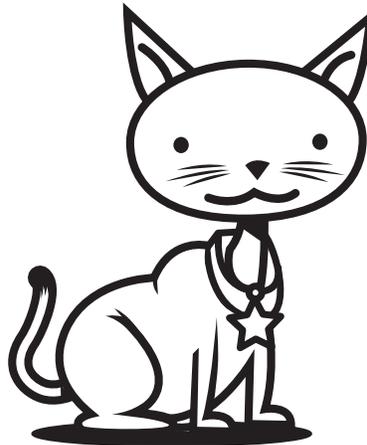
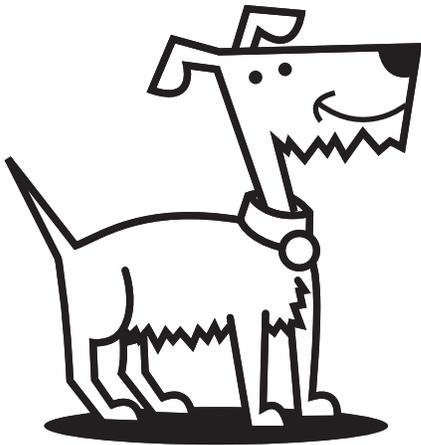
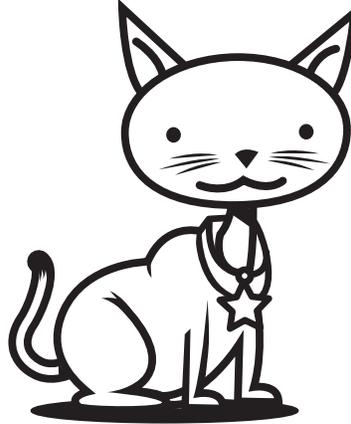
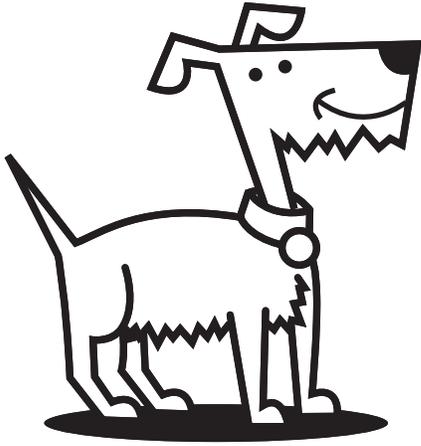


**NUMBER**<sup>®</sup>  
CORNER





# Cat & Dog Cards

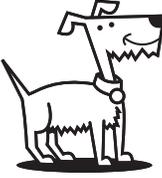




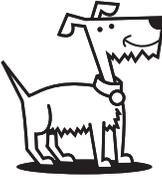
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 +   =

Cats Dogs

 +   =

Cats Dogs

 +   =

Cats Dogs

 +   =

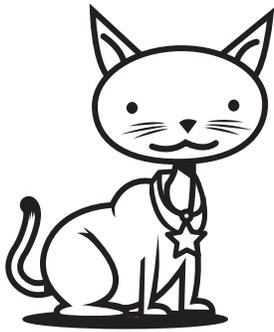
Cats Dogs

 +   =

Cats Dogs

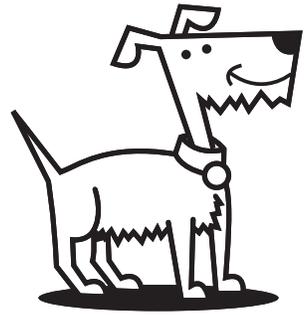
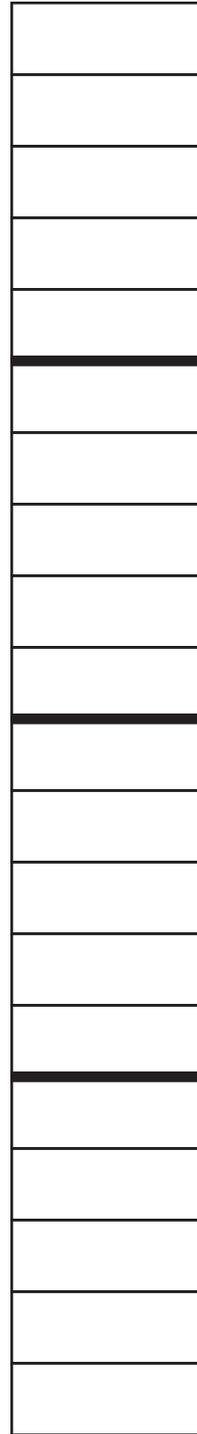


# Cat & Dog Graph



color me orange

Cat



color me brown

Dog

**1–50 Number Grid**

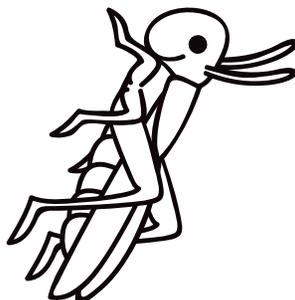
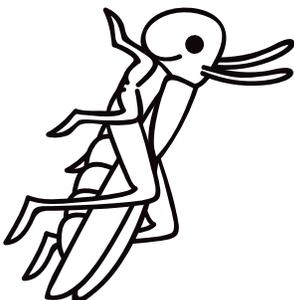
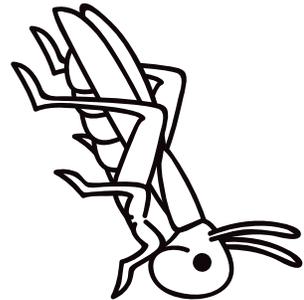
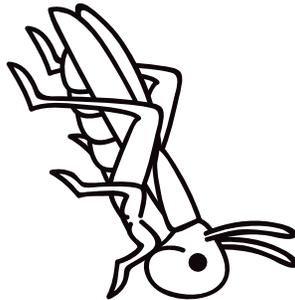
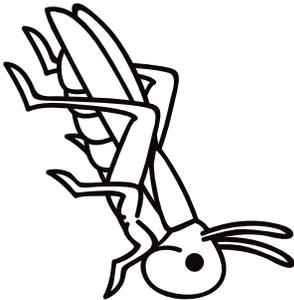
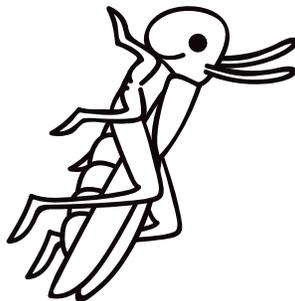
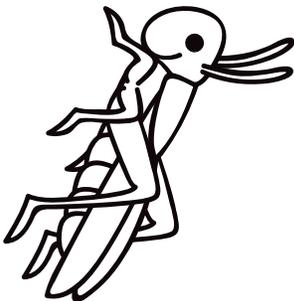
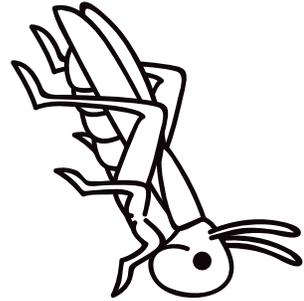
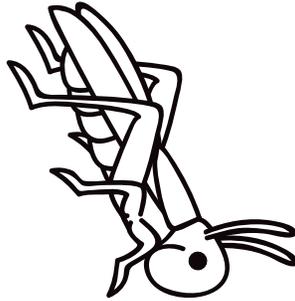
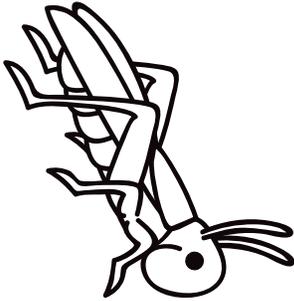
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>

 **Hap's Number Line**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	glue
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	glue
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	glue
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>	glue
<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>	



## Hap Pointer Cutouts



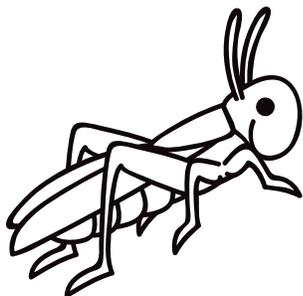


## Hap's Note Home

Dear Family,

This year, my friends have learned a lot about numbers and counting with some help from me, Hap, the Happy Grasshopper. Inside this envelope, you will find a number line and a grasshopper pointer.

Help your child practice his or her number skills at home by doing some of the following:



- Ask your child to count forward or backward along the number line, starting and stopping on different numbers.
- Have your child skip-count by 10s to 50, pointing to each of the counting-by-10s numbers along the line as they go.
- Name a number between 1 and 50, and have your child find that number on the line. Can they name the number that comes before it? After it? What about 2 or 3 numbers before or after the number?
- Have your child point to one of the numbers on the line. Roll a die and have them count that many forward or backward from the chosen number and name the new number.
- Sing my happy hopping song and hop along.

# Have fun with numbers!

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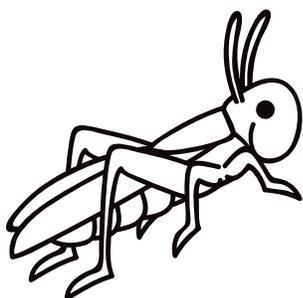


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- Sing my happy hopping song and hop along.

# Have fun with numbers!

NAME \_\_\_\_\_

DATE \_\_\_\_\_



# Number Corner Checkup 4 Interview Response Sheet page 1 of 2

Materials	Copies	Common Core State Standards Correlation	
<ul style="list-style-type: none"> <li>• Double Ten-Frame Five-Wise Display Cards for 11, 14, and 19</li> <li>• Pattern Blocks (12 triangles, 6 trapezoids, 9 blue rhombuses) in a small tub</li> <li>• a backpack</li> </ul>	<b>TM 10</b> Scattered Dot Cards for 0–5  <b>TM T11</b> Three Hexagons	<b>1</b> K.CC.1 <b>2</b> K.CC.1 <b>3</b> K.OA.5	<b>4</b> K.NBT.1 <b>5</b> K.MD.1 <b>6</b> K.G.6

**1** Say, “Start counting forward from 1, and I’ll tell you when to stop.” Stop the student at 100 or the first point at which they stop being accurate.

Circle student’s response below.

Unsuccessful; counts to _____	Correct but not fluent	Correct and fluent
-------------------------------	------------------------	--------------------

**2** Say, “Start with 10 and count by 10s.” Stop the student at 100 or the first point at which they stop being accurate.

Circle student’s response below.

Unsuccessful; counts to _____	Correct but not fluent	Correct and fluent
-------------------------------	------------------------	--------------------

**3** Show Scattered Dot Cards for 0–5 in random order. For each card say, “How many dots do you see? How many more would it take to make 5?”

Check the behavior closest to what the student exhibits for each card.

	0 dots	1 dot	2 dots	3 dots	4 dots	5 dots
Unsuccessful Does not count the number of dots on the card correctly or does not give the correct number needed to make 5						
Identifies number of dots on the card correctly, and counts from 1 to figure out how many more dots need to be added to make 5						
Identifies number of dots on the card correctly and gives the number needed to make 5 automatically, either verbally or by popping up all the fingers needed without counting them one by one						

**4** Show the double ten-frame cards for 11, 14, and 19. For each card ask, “How many in the top row? How many in the bottom row? How many in all?”

Check the behavior closest to what the student exhibits for each card.

	11 dots	14 dot	19 dots
Unsuccessful (does not count the dots in the top row accurately, or does not count the dots in the bottom row accurately, or does not give the correct total)			
Counts from 1 by 1s to find the numbers in the top row, the bottom row, and the total			
Counts on from 10 to get the total			
Knows the answer automatically, without any kind of counting			

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Number Corner Checkup 4 Interview Response Sheet page 2 of 2

- 5** Point to the backpack. Say, “Tell me about the backpack.” After the student has had a few moments to describe the backpack ask, “How could we measure the backpack?”

Check the behavior closest to that which the student exhibits.

Record any measurable attributes to which the student refers (e.g., length, width, weight, volume)

Unsuccessful (Student names no measurable attributes)	
Student names one or two measurable attributes	
Student names at least three measurable attributes, e.g., length (long or short), width (wide or narrow), volume (can hold a little or a lot), weight (heavy or light), size (big or small)	

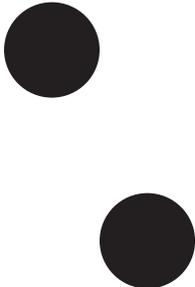
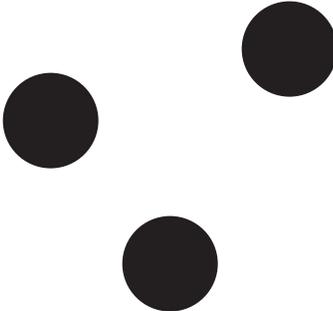
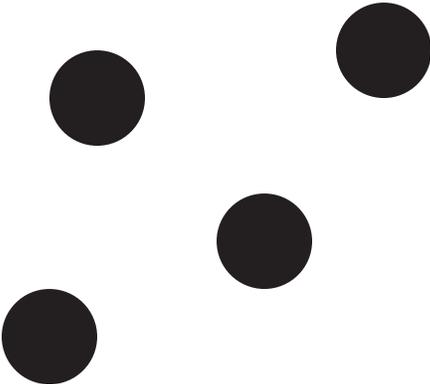
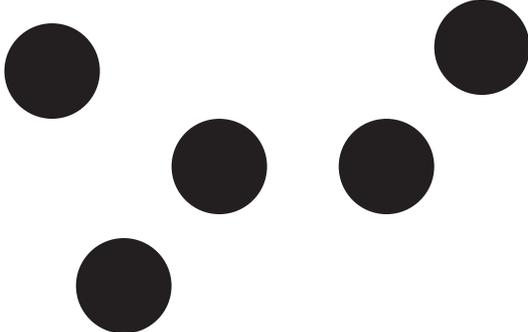
- 6** Give the student a copy of the Three Hexagons Teacher Master and a small tub of pattern blocks (see materials list). Say, “Please use these pattern blocks to build the hexagon in three different ways. You can build right on top of the shapes on the paper or off to the side.”

Check the behavior closest to that which the student exhibits.

Unsuccessful (Student is not able to use the blocks to build the hexagon)	
Student uses the pattern blocks to build the hexagon in one or two different ways	
Student uses the pattern blocks to build the hexagon in three different ways	

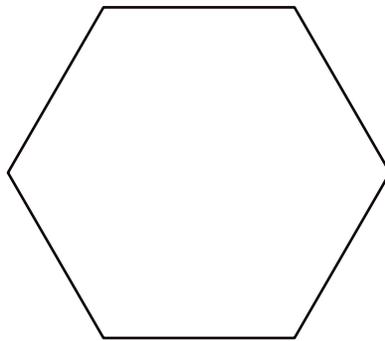
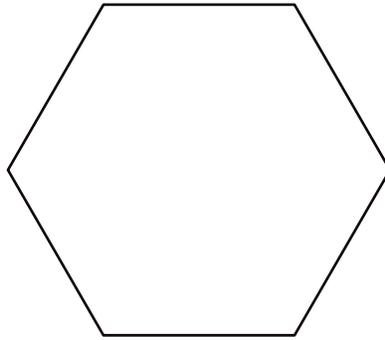
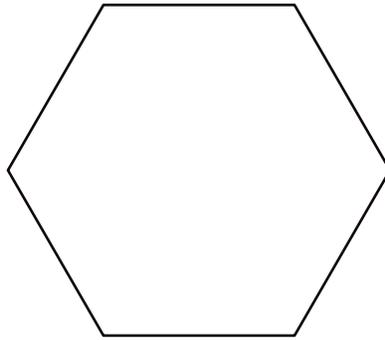


# Scattered Dot Cards



# Three Hexagons



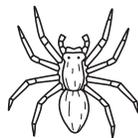
NAME \_\_\_\_\_

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**Number Corner Checkup 4 Written Assessment** page 1 of 2

Instructions to the teacher: Read each story problem to the students, allowing time for them to respond before moving on. You may read the problem more than once, and students can use cubes or fingers to help find the answer.

- 1** Five spiders were on the ground. Two of the spiders ran to hide in a hole. How many spiders were left? Use numbers and pictures to help solve the problem. Show your work. Write your answer in the box.



- 2** Six leaves are on the tree. Four are green, and the rest are brown. How many leaves are brown? Use numbers and pictures to help solve the problem. Show your work. Write your answer in the box.



NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Number Corner Checkup 4 Written Assessment page 2 of 2

Instructions to the teacher: Give each student two trains of 10 single-colored Unifix cubes, each in a different color, and read the problem. Then model how to complete the task once, using a copy of the assessment. Ask students to solve the problem three times, each time using a different combination to make 8. Have students complete the task independently.

- 3** Use two different colors to make a train of 8. Color in the train to show how you made it. Write numbers to show how many there are of each color and how many in all.

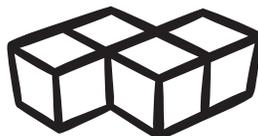
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# Student Book

KINDERGARTEN – MAY



**NUMBER**<sup>®</sup>  
CORNER



NAME \_\_\_\_\_

DATE \_\_\_\_\_



## Cat or Dog?

Every two weeks, color in the boxes on a ten-frame to show how many cats and how many dogs you got. Use orange for the cats and brown for the dogs. Write an equation below each frame to show the number of cats, the number of dogs, and the total.

### Week 2


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### Week 4


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NAME \_\_\_\_\_

DATE \_\_\_\_\_



## 1–50 Number Grids

Grid 1

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Grid 2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50