



Teachers Guide | Grade 1

September



The MATH LEARNING CENTER

Number Corner® Third Edition Grade 1 Teachers Guide Volume 1

The Number Corner Grade 1 package consists of:

Number Corner Grade 1 Teachers Guide Volumes 1–3
Number Corner Grade 1 Print Originals
Number Corner Grade 1 Student Book
Number Corner Grade 1 Print Originals Answer Key

Number Corner Grade 1 Student Book Answer Key
Number Corner Grade 1 Components & Manipulatives
Word Resource Cards
Bridges Educator Site

Digital resources noted in italics.

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Bridges in Mathematics is a standards-based K–5 curriculum that provides a unique blend of concept development and skills practice in the context of problem solving. It incorporates Number Corner, a collection of daily skill-building activities for students.

The Math Learning Center is a nonprofit organization serving the education community. Our mission is to inspire and enable individuals to discover and develop their mathematical confidence and ability. We offer innovative and standards-based professional development, curriculum, materials, and resources to support learning and teaching. To find out more, visit us at www.mathlearningcenter.org.

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Print Originals

Pages renumber each month.

Paper Pennies	P1
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Graphing Mat.....	P3
Days in School Title	P4
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Ten & More Combination Cards	P6
Penny Poem	P8
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Number Corner Student Book Pages

Page numbers correspond to those in the consumable books.

The First Decade Day	1
My Math Thinking	2
Ten & More Dots	3
Ten & More Bingo.....	4
The Second Decade Day	5

September Daily Planner

Day	Page	Date	Activities	Updates
Day 1	19 20 22		Calendar Grid Introducing the Calendar Grid & Date Chart Calendar Collector Introducing the Calendar Collector Days in School Introducing the Days in School Chart	
Day 2	23 26		Calendar Grid Starting Collections of Tallies, Sticks & Tiles Number Path Introducing the Number Path Pocket Chart	CC, DS
Day 3	27 27		Calendar Grid Starting Collections of Tallies, Sticks & Tiles Number Path Counting Forward & Backward Within 9	CC, DS
Day 4	29 29		Calendar Grid Starting Collections of Tallies, Sticks & Tiles Number Path Counting Forward & Backward Within 9	CC, DS
Day 5	31		Calendar Collector Looking at the Weekly Collection Total	CG, DS
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Day 7	35		Computational Fluency Matching Double 10-Frames & Combination Cards	CG, CC, DS
Day 8	37 38		Days in School Finding 5 Number Path Counting Forward & Backward Within 9	CG, CC
Day 9	39		Calendar Grid Ten & Some More	CC, DS
Day 10	41 42		Calendar Collector Looking at the Weekly Collection Total Number Path Introducing Decade Day	CG, DS
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Day 12	49		Computational Fluency Ten & More Match Game	CG, CC, DS
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Day 14	53		Number Path Choral Counting from 1 to 19	CG, CC, DS
Day 15	55		Calendar Collector Looking at the Weekly Collection Total	CG, DS
Day 16	57		Calendar Collector Ordering the Three Collections	CG, DS
Day 17	59 60		Days in School Introducing Writing Equations for the Days in School Computational Fluency Completing the Ten & More Dots Page	CG
Day 18	61		Calendar Collector Estimating & Counting the Month's Total Collection	CG, DS
Day 19	65		Calendar Grid Playing Ten & More Bingo	DS
Day 20	67		Number Path Celebrating the Second Decade Day	CG, DS

Updates

On days when Calendar Grid, Calendar Collector, and Days in School are not a featured workout, the class will update them together. Summaries of the updates appear below; see the Update Routines section for details.

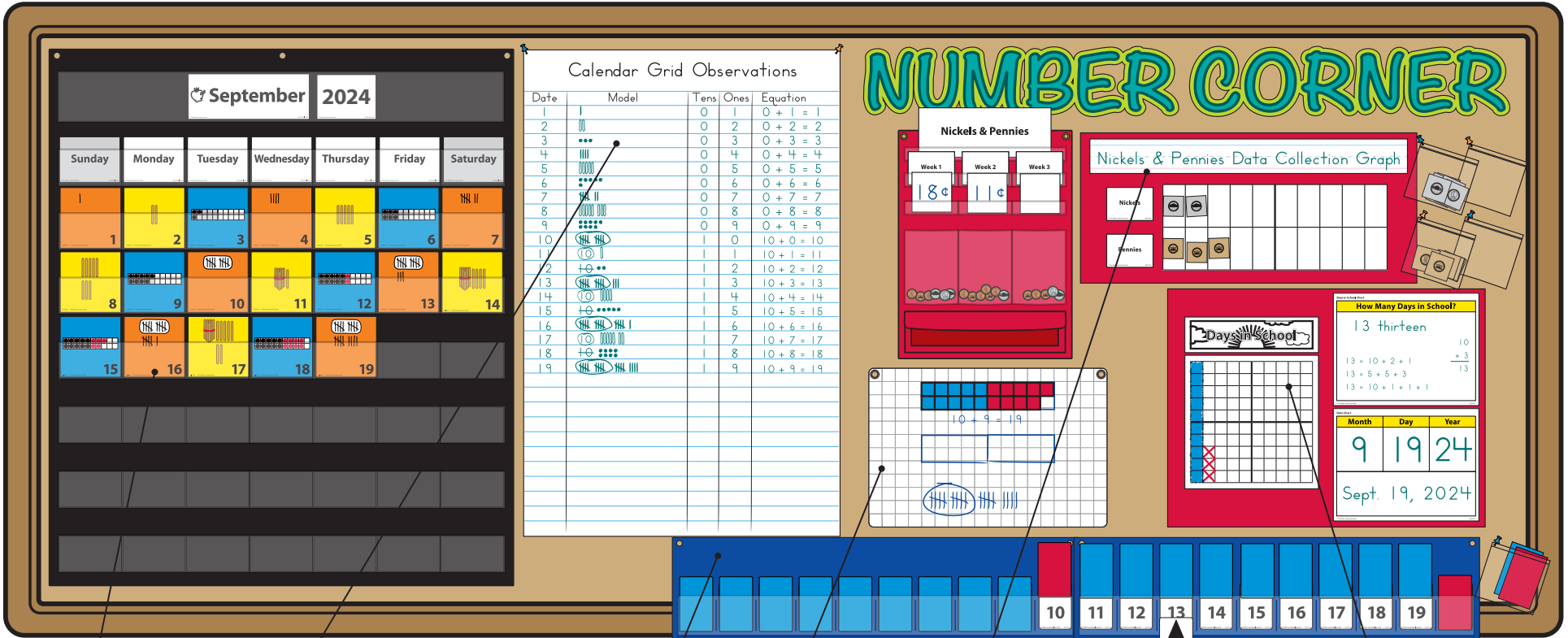
Calendar Grid Share predictions about and post the day's marker, say and write the date, update models, and update the Calendar Grid Observations chart (after Day 6).

Calendar Collector Spin the spinner and add coins to the graph. Clear the graph and pocket chart at the beginning of each week.

Days in School Mark an X on the Days in School 100-Frame, then count and record the number of days.

September 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 print originals. 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. A Number Corner header may be made from precut or handmade letters.



Calendar Grid Pocket Chart

Remember to consult a calendar for the starting day of the month and year. Include the label for the year at the top of the chart.

Calendar Grid Observations Chart

A piece of 24" x 36" chart paper works well.

Classroom Number Line

By the end of the year, you will have 16 or 17 strips. Plan space for the line to continue and, if possible, be placed where students can interact with it.

Number Path Pocket Chart

Extra red and blue covers can be kept in a zip-top bag pinned to the board.

Magic Wall & Magnetic Tile

Post the Magic Wall near the Calendar Grid display. Keep the blue and red magnetic tiles nearby.

Calendar Collector Pocket Chart & Data Collection Graph

Assemble the graph from copies of the included print originals, the included title cards, and a sentence strip for a heading. Pin up a few plastic bags beside the graph to hold extra pieces. See the Preparation section for details.

You'll use similar elements for Calendar Collector displays in October and January.

Date Chart, Days in School Chart & 100-Frame

The frame measures approximately 10" wide by 12" tall including the header and is constructed from copies of two print originals. The charts are included in the Number Corner kit.

Word Resource Cards

Post these during Calendar Collector Day 5: Looking at the Weekly Collection Total.

Number Corner September

Workouts

Overview

The workouts in the first month of school focus on counting and recognizing numbers from 0 to 30, with a special emphasis on understanding that teen numbers are made of 1 ten and some more. Students use a wide variety of models this month that will help them work in groups of 2, 5, and 10. Students review the concept of unitizing; that is, thinking of 10 items as a single unit called a *ten*.

Copies & Display

- ☐ Visit the Bridges Educator Site to review the Interactive Display Materials for this month of Number Corner. Decide whether you will use digital materials for display or copies of print originals and student book pages. Make copies as needed.
- ☐ If students do not have Number Corner Student Books, run a class set of pages 1–5.
- ☐ Additional resources, including printable sets of key questions for each September workout, are available on the Bridges Educator Site.

Teaching Tips

Plan to spend more time on the Number Corner workouts this month as you establish procedures that ensure Number Corner runs smoothly. Share expectations for moving between work spaces and the Number Corner discussion area, picking up and putting away material, and responding to one another's thinking respectfully.

There are 20 days of Number Corner activities in September, but you may have more or fewer teaching days. Before you get started this month, look ahead and plan how you might shift the order you teach some workouts or activities.

On your Daily Planner

- Schedule Calendar Collector Days 5, 10, and 15 for the last school day of the week so you can count the collection at the end of a week. Looking at the Weekly Collection Total on the last school day of the week helps students develop an understanding of the calendar structure (i.e., months are made of weeks; weeks have a beginning and an end; school weeks are separated by weekends). Consider combining two partial weeks into one week if the need arises.
- Schedule Number Path Day 10 and Day 20 for the 10th and 20th days in school, if possible, as both of these celebrate Decade Days.
- Note that you might want to split the workouts for Day 10 to ensure that the Calendar Collector workout is scheduled on the last day of the week and the Number Path workout is scheduled on the 10th day in school.

Other Considerations

- First graders enjoy discovering patterns in the Calendar Grid workout. Allow time for students to discover the patterns as the month progresses.
- When introducing the Days in School routine, refer to the 100-frame as the Days in School Chart, rather than 100-frame chart. Much of the fascination students have with this workout during the first couple of months is in trying to determine the total number of squares in the frame.

- You will create a classroom number line from 0–120 in the Number Path workout this year. When placing the 0–9 and 10–19 strips this month, consider the space in your classroom and choose a location that allows the number line to grow throughout the year and is accessible to students.
- The choral counting routine appears once each month in Number Corner. This month, take time to establish norms for this highly engaging activity.



Calendar Grid: Place Value Models

Overview

Each day a student helper adds a marker to the Calendar Grid and leads the class in saying the date. With student input, the teacher records the date on the Date Chart. Students count the items shown on the marker to determine the number represented by the picture and build that number using one of three models: bundles & sticks, tally marks, or double 10-frames.

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Day 2 Starting Collections of Tallies, Sticks & Tiles	pg. 23
Day 3 Starting Collections of Tallies, Sticks & Tiles	pg. 27
Day 4 Starting Collections of Tallies, Sticks & Tiles	pg. 29
Day 6 Introducing the Calendar Grid Observations Chart.....	pg. 33
Day 9 Ten & Some More	pg. 39
Day 19 Playing Ten & More Bingo.....	pg. 65

Preparation

Kit Materials	<ul style="list-style-type: none"> • Calendar Grid pocket chart • Month, Day & Year Cards • Math Models calendar markers • Date Chart • Magic Wall • craft sticks
Classroom Materials	<ul style="list-style-type: none"> • chart paper, lined • washable marker • magnetic tiles (blue and red) • ziptop bags (2, quart size) • chenille stems (3, each 6-inches) • Unifix cubes

Vocabulary

**Word Resource Card available*

10-frame
bundles & sticks
date
day
different
equal*
equation*
less than*
month
more than
observe
ones*
order
pattern*
same
sum or total*
tally marks
tens*
week
year

☐ Prepare the Calendar Grid display

- Post the Calendar Grid pocket chart in your Number Corner area. Place the September month card and the appropriate year card in the top pocket. Post the days of the week cards in the next row of pockets. Make ready the Math Models calendar markers, but don't post any yet.
- Display one full set of month cards near the Calendar Grid pocket chart.
- Post the Date Chart near the Calendar Grid pocket chart.

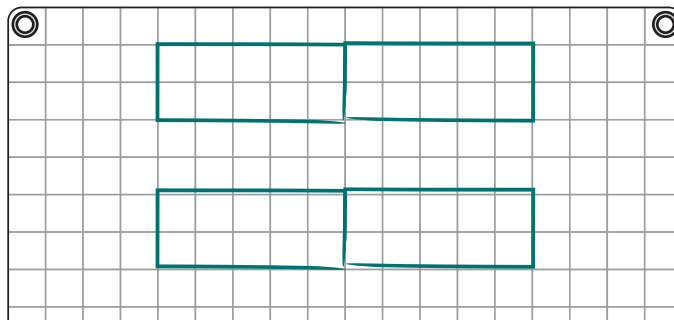
☐ Prepare the Calendar Grid Observations chart

Draw a five-column chart on lined chart paper. Title the chart *Calendar Grid Observations*. Label the columns in order, left to right *Date*, *Model*, *Tens*, *Ones*, and *Equation*. Alternatively, visit the Bridges Educator Site to find a printable poster-sized PDF of the chart. Laminate the chart to reuse it in the future. Post the chart near the Calendar Grid display.

Calendar Grid Observations				
Date	Model	Tens	Ones	Equation

□ Prepare to collect tallies, sticks, and tiles

- **tiles and tallies** Using a washable marker, draw two double 10-frames near the top of the Magic Wall, leaving space below them for drawing tally marks. Post the Magic Wall near the Calendar Grid display. Keep a supply of blue and red magnetic tiles nearby.



- **sticks** Place 31 craft sticks and three chenille stems in a ziptop bag. Pin this and a second ziptop bag near your Calendar Grid display. You'll use the second bag to hold the bundles & sticks models you'll build this month.

□ Prepare Unifix cube trains

Snap Unifix cubes into two-color trains of 10, five cubes of one color with five cubes of another color. Store the cube trains where they are easy to access.

Mathematical Background

This month's Calendar Grid activities help students recognize that 10 items can be thought of as a group or bundle called a *ten*, a process commonly referred to as *unitizing*. Students will come to recognize that teen numbers are composed of 1 ten and some more ones and, similarly, numbers in the twenties are composed of 2 tens and some more ones, and so on.

About the Pattern

The patterns featured this month are described below. Revealing one calendar marker each day allows students to make and test predictions, and to discover the pattern as new markers are added and their predictions are confirmed or proven false.

- The first pattern most students will observe is the repeating ABC color pattern: orange, yellow, blue, orange, yellow, blue, and so on.
- This ABC pattern is also repeated in the math models: tally marks, bundles & sticks, 10-frames.
- The quantity represented by the model matches the date and grows by one each day.

Key Questions

Learning to search for, describe, and extend patterns facilitates algebraic thinking. Use these questions to help your students investigate this month's pattern.

- What will today's marker look like? What number, model, and color will it show? How do you know?
- When will you see the next set of tally marks (bundles & sticks, 10-frames)? How do you know?
- What do you notice about the number of items on the markers?
- Is there anything the same about these two (three, four, etc.) markers?
- Is there anything the same about every marker?
- Can you think of another pattern that repeats in the same way (ABC)?

- Can we do something with our bodies every time we see tally marks? Bundles & sticks? 10-frames? What kind of pattern will we make?
- What are some other ways to show a number as a group of ten and more ones?

Literature Connections

Use the following book as a read-aloud this month to reinforce the tally mark model.

- *Tally O'Malley* by Stuart J. Murphy, illustrated by Cynthia Jabar



Calendar Collector: Collecting 5s & 1s with Nickels & Pennies

Overview

Students learn two poems to help identify the names and values of the nickel and penny. Each day, a helper spins a spinner that shows nickels and pennies and then adds to the collection by attaching paper coins to a two-row graph. At the end of each week, students make groups of 5 and 10 cents to count how much money they collected. Looking at the Weekly Collection Total (Days 5, 10, and 15) on the last school day of the week helps students develop an understanding of the calendar structure (i.e., months are made of weeks; weeks have a beginning and an end; school weeks are separated by weekends). At the end of the month, they compare and order the collections for the first three weeks, and then estimate and compute the total value of the coins they collected.

Day 1 Introducing the Calendar Collector	pg. 20
Day 5 Looking at the Weekly Collection Total	pg. 31
Day 10 Looking at the Weekly Collection Total	pg. 41
Day 15 Looking at the Weekly Collection Total	pg. 55
Day 16 Ordering the Three Collections	pg. 57
Day 18 Estimating & Counting the Month's Total Collection	pg. 61

Preparation

Copies & Display	PO P1 Paper Pennies PO P2 Paper Nickels PO P3 Graphing Mat
Kit Materials	<ul style="list-style-type: none"> • Calendar Collector pocket chart • Calendar Collector display cards (title: Nickels & Pennies; labels: Week 1, Week 2, Week 3, Nickels, Pennies) • plastic coins (pennies and nickels only)
Classroom Materials	<ul style="list-style-type: none"> • 3" × 5" index cards (2) • glue stick or clear tape • butcher paper • sentence strip, or similar sized piece of paper • zip-top bags (2) • reusable adhesive putty

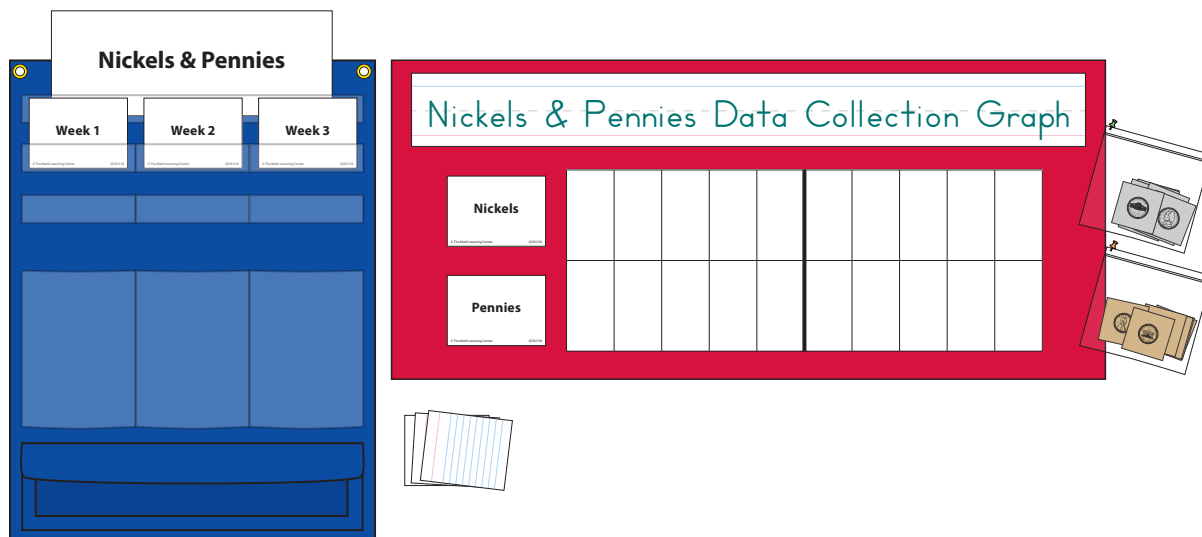
- ☐ **Prepare the Calendar Collector display**
Post the Calendar Collector pocket chart in your Number Corner area. Place the Nickels & Pennies display card in the top pocket. Insert the Week 1, 2, and 3 display cards in the next row of pockets. Store the plastic pennies and nickels in the bottom pocket, or elsewhere nearby.
- ☐ **Prepare label cards**
Cut two index cards in half. Tuck one card into each of the pockets below the Week cards to serve as labels for the weekly collection totals. Laminate the cards for reuse.
- ☐ **Prepare the data collection graph**
 - Store the paper pennies and nickels you created from the Paper Pennies and Paper Nickels print originals in zip-top bags. Pin the bags near the Calendar Collector display. Keep reusable adhesive putty close by to attach the paper coins to the data collection graph.
 - Run two copies of the Graphing Mat print original. Trim both copies, then glue or tape them together to create a 2-by-10 grid. Laminate the grid for reuse. Affix the grid and the Calendar Collector labels for Pennies and Nickels to a piece

Vocabulary

**Word Resource Card available*

collection
data*
different
equal*
estimate*
estimation
fewer/fewest*
graph
greater/greatest
greater than*
least*
less
less than*
more
more than
most*
nickel*
penny*
picture graph*
same
sum or total*

of colored butcher paper, then post the graph next to the Calendar Collector display. Use a sentence strip to create a title for the graph: *Nickels & Pennies Data Collection Graph*.



Mathematical Background

Children love to collect objects they find interesting, such as rocks, stickers, and action figures. The Calendar Collector workout capitalizes on students' inclination to keep collections, and provides opportunities for them to collect, organize, represent, and describe data in many different forms. Over the year, students read, interpret, and discuss a variety of charts and graphs. They learn the vocabulary necessary to compare categories and to ask and answer questions about data. Today's students live in an information-rich society, and these activities can help them become informed consumers of data.

Key Questions

Use the following questions to guide students' discussion about this month's collection:

- How is a penny the same as a nickel? How is it different?
- What is this graph telling us about?
- What do the pictures represent?
- Are there more nickels or pennies? How do you know?
- How many fewer pennies than nickels are there? How do you know?
- How many more pennies do we need to have an equal number of pennies and nickels?
- Which row has the most? Which row has the fewest?
- Is the total number of nickels greater than or less than the total number of pennies?
- What is the total number of coins collected this week? How do you know?
- Is the total number of coins the same as the total amount of money? Why or why not?
- How can we use this information to tell us more about our collection?

Literature Connections

Each of these suggested read-alouds deals with small amounts of money.

- *Benny's Pennies* by Pat Brisson, illustrated by Bob Barner
- *A Penny's Worth* by Kimberly Wilson, illustrated by Mark Hoffmann



Days in School: Finding 5

Overview

Students use a 100-frame (a 10-by-10 grid of squares) to keep track of the days they have been in school. Each day, they fill in another square, and the teacher helps them identify groups of 5 and 10 using special markings. Near the end of each month, students generate different combinations of numbers that add up to the total shown on the 100-frame.

Day 1 Introducing the Days in School Chart..... pg. 22

Day 8 Finding 5..... pg. 37

Day 11 Finding the Two 5s in 10..... pg. 45

Day 17 Introducing Writing Equations for the Days in School..... pg. 59

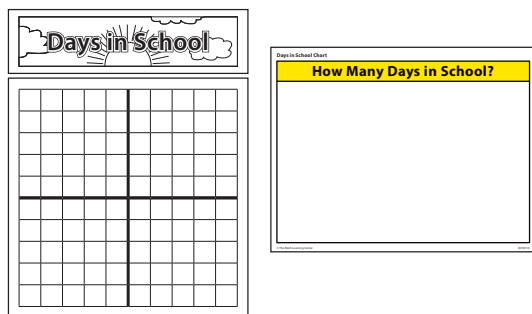
Preparation

Copies & Display	PO P4 Days in School Title PO P5 100-Frame
Kit Materials	Days in School Chart
Classroom Materials	glue stick or clear tape



Prepare the Days in School display

Run one copy of the Days in School Title and two copies of the 100-Frame print originals, then trim. Glue or tape the 100-frame pieces together to form a 10×10 grid. Post the title and 100-frame together in your Number Corner area, along with the Days in School Chart.



Vocabulary

**Word Resource Card available*

column*

day

equal*

equation*

sum or total*

year

Mathematical Background

There is something about counting the days of school that is rewarding for first graders. Perhaps it is the idea of getting older, closer to a special day, or simply working with increasingly greater numbers, that appeals to them. Students keep track of the days in school using a 10-by-10 array called the 100-frame. This frame helps them see and count groups of 1, 5, 10, 25, and 50, within 100. This visual understanding of quantity is essential for young children's development of number sense.

Key Questions

Use the questions below to help students see numbers within numbers and use groups of 5 and 10 as benchmarks.

- How many squares are marked? How do you know? Is there another way to tell?
- What number comes next? How do you know?
- How many 5s are in a given number? Can you prove it?
- How many more school days until we make a 5? 10? Can you prove it?



Computational Fluency: Adding 10 & More

Overview

The double 10-frame is a visual model that helps first graders quickly see groups of 2, 5, and 10 in different quantities. This workout makes use of the double 10-frame to help students become confident adding 10 and a single-digit number to make a teen number. Students practice matching double 10-frame cards to equations while playing games. Later, they write equations to match quantities shown on double 10-frames.

Day 7 Matching Double 10-Frames & Combination Cards..... pg. 35

Day 12 Ten & More Match Game..... pg. 49

Day 13 Writing Ten & More Equations pg. 51

Day 17 Completing the Ten & More Dots Page pg. 60

Preparation

Copies & Display	PO P6–P7 Ten & More Combination Cards
Classroom Materials	ziptop bag

- ☐ Run copies of the 10 & More Combination Cards on cardstock. Laminate the sheets, then cut apart the cards. Store the cards in a ziptop bag in your Number Corner discussion area.

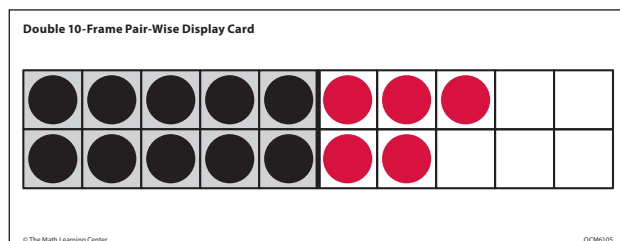
Vocabulary

**Word Resource Card available*

10-frame
double 10-frame
equal*
equation*
in all
row*
teen numbers

Mathematical Background

The activities this month use the double 10-frame model to reinforce students' understanding of teen numbers as 1 ten and some more ones. The left 10-frame is always filled with 10 black dots, supporting students' grasp of unitization, that is, seeing 10 ones as 1 unit of ten.



15 shown as 1 ten and 5 ones on a double 10-frame

Some first graders will know that 10 plus a single-digit number equals a teen number. Others will count the dots by 1s to identify and name teen numbers. The teen numbers are complex, and it will take students time to become familiar with them. Understanding them is an important milestone toward developing number sense.

Key Questions

Use these questions to help students think about the structure of double 10-frames.

- What is the same about all of the double 10-frame cards displayed? What is different?
- Can you think of two different ways to find the total number of dots on a card?
- How do the cards help you find the total without counting all of the dots?
- Where do you see 10 in this number?
- Where do you see (the number of red dots to the right) in this number?

1 2 3 Number Path: The First Two Decades

Overview

Counting forward and backward from 1 to 20 is the focus of this month's Number Path workout. Students use the Number Path pocket chart to identify numbers that come before or after a given number within this range. On the tenth day of school, they observe the first Decade Day. With input from students, the teacher records the decade number sequence (0–9) on a colored sentence strip. New sentence strips are added every 10 days to create a classroom number line.

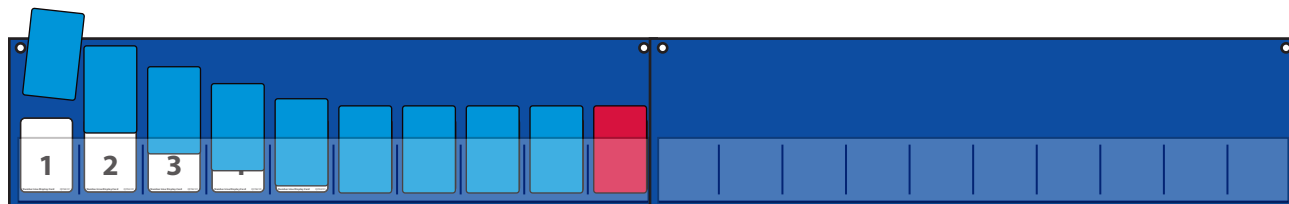
Day 2 Introducing the Number Path Pocket Chart.....	pg. 26
Day 3 Counting Forward & Backward Within 9	pg. 27
Day 4 Counting Forward & Backward Within 9	pg. 29
Day 8 Counting Forward & Backward Within 9	pg. 38
Day 10 Introducing Decade Day	pg. 42
Day 11 Counting Forward & Backward Within 19.....	pg. 46
Day 14 Choral Counting from 1 to 19.....	pg. 53
Day 20 Celebrating the Second Decade Day	pg. 67

Preparation

Kit Materials	<ul style="list-style-type: none"> • Number Path pocket chart • Number Path display cards 1–10 • Number Path cover cards (9 blue and 1 red) • Frog Number Path Markers
Classroom Materials	<ul style="list-style-type: none"> • clothespins (3) • glue gun • permanent marker (black) • dowel, ruler, paint stirrer, or similar item (2) • sentence strips (17–18 strips, in two colors) • ruler marked with centimeters

☐ Prepare the Number Path display

Post the Number Path pocket chart near the Days in School display. Place Number Path display cards 1–10 in order in the first 10 pockets. Cover numbers 1–9 with blue cards and number 10 with a red card. The red cards, or doors, cover decade numbers and serve as reference points for students. You'll adjust the range of numbers in the pocket chart on Day 10.



☐ Prepare the Frog Number Path clips and pointers

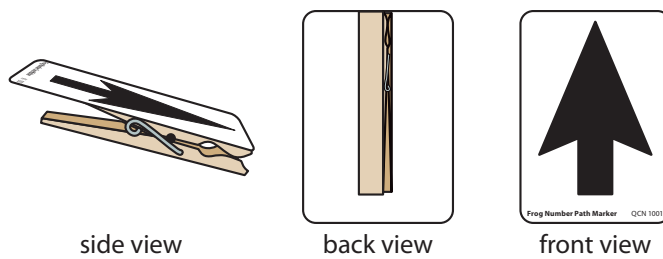
You'll probably find it convenient to prepare all the clips and pointers now that you will use throughout the school year. You'll use the arrow clip and Tad frog pointer this month, the frog range marker clips in October, and the Polli frog pointer in January.

- **arrow clip** Find the arrow in the set of Frog Number Path markers. Use a glue gun to affix it to a clothespin, with the arrow pointing to the closed end of the clothespin and flush with its edge.

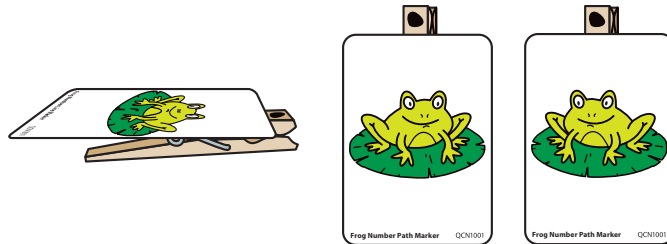
Vocabulary

**Word Resource Card available.*

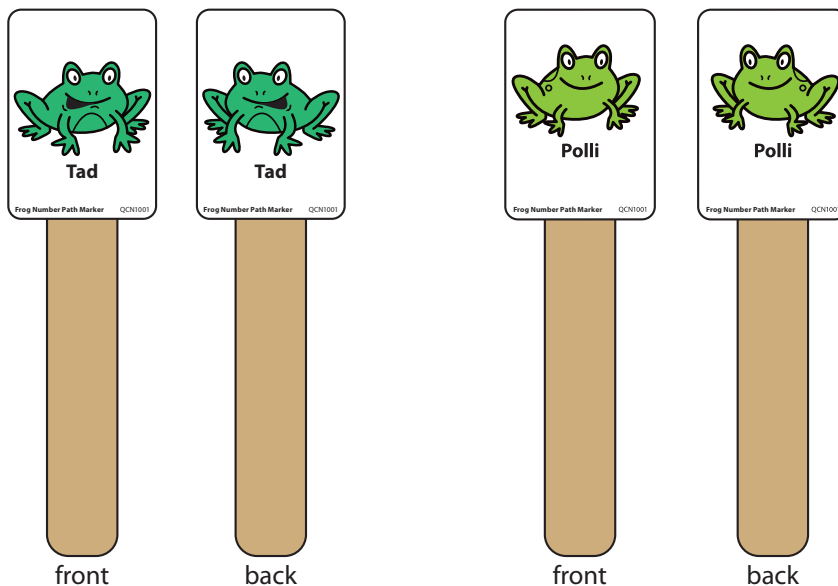
after*
backward
before*
count back*
count on*
decade
digit*
forward
number line*
number path*
ones family
teens family



- **frog range marker clips** Use the two cards showing frogs sitting on lily pads to create frog range marker clips. Use a glue gun to affix each card to a clothespin, leaving about $\frac{1}{2}$ " of the clothespin exposed at the closed end. Mark that edge of the clothespin with a dot of black permanent ink.

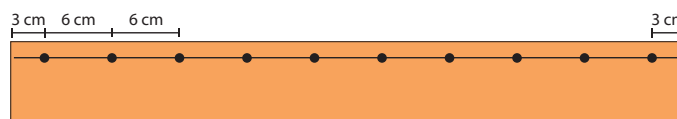


- **frog pointers** Use a glue gun to affix the two Tad frog cards to either side of a wooden dowel, ruler, paint stirrer, or similar item. The frog will appear to hop to the left or right depending on how the pointer is turned. Affix the two Polli frog cards to either side of another dowel or paint stirrer.



Prepare the classroom number line sentence strips

Prior to Day 10, draw a line about $\frac{1}{2}$ " from the top of a colored sentence strip and mark 10 dots along the line. Mark the first and tenth dots about 3 cm from the edge of the strip. Make the second dot 6 cm from the first dot, the third dot 6 cm from the second dot, and so on.



Use this strip to mark 16 or 17 more sentence strips in the same way. If you draw the line on all of the strips, you can use the first strip as a guide for marking all the other dots without having to measure each time. Laminate the strips. You'll write numbers on each strip with students during Number Path activities throughout the year. At the end of the year, you can erase the numbers from all of the strips and reuse the strips the following year. (Melamine foam sponges — Mr. Clean Magic Eraser, Scotch Easy Erasing Pad, and others — are quick and effective erasers.) You'll begin posting these strips on Day 10.

Mathematical Background

In this workout, students use both a number path and a number line model. The two are similar but have some distinct differences.

Number Path Pocket Chart

The Number Path display helps students keep track as they recite the counting sequence and connect the number name to the written numeral: for example, 4 and four refer to the same number. It also helps them see relationships among numbers: for example, 8 is 1 more than 7 because it comes immediately after 7. The number path supports students' ability to count discrete objects because each space is a discrete object and garners exactly one count.

Classroom Number Line

The classroom number line is essentially a measurement model, somewhat akin to a ruler. Each number on the line indicates how many intervals it is from 0. Later in the year, students will count the intervals between numbers to calculate. You will assemble this number line over time, using colored sentence strips that each contain a single decade's worth of numbers (ones, teens, twenties, and so on). Adding a decade of numbers every 10 days gives students the opportunity to consider patterns within and among the number families. Consider highlighting the multiples of 10 (10, 20, 30, and so on) in some way. You can write them in red, embellish them with a sticker, or draw a shape around each one.



Key Questions

Use these questions to encourage students to count forward and backward on the number line.

- What number comes next? How do you know?
- What number comes before (any given number 0–19)?
- What number is 3 more? Can you prove it?
- What number is 2 less? Can you prove it?
- What number(s) comes between (two given numbers)? How do you know?

Number Corner September

Update Routines

You'll usually update Calendar Grid, Calendar Collector, and Days in School before moving on to the day's featured activity. These brief updates create consistency for students as they practice noticing and predicting patterns and explore the month's mathematics.

Calendar Grid

On Day 2, introduce the update procedure. Follow this procedure every day that the Calendar Grid is not a featured workout. When Calendar Grid is featured, the update will be part of the activity.

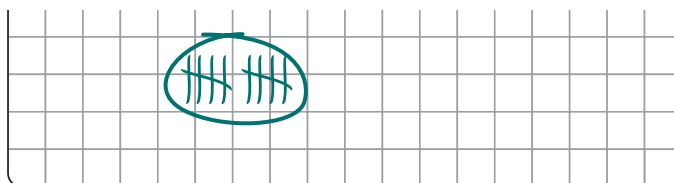
Procedure

1. Students make predictions about the day's Calendar Grid marker.
2. A student helper posts the Calendar Grid marker for the day and leads the class in saying the day's date.
3. With student input, the teacher writes the date on the Date Chart.
4. Starting Day 5, a student helper updates the model of the day — the sticks, the tiles in double 10-frames, or the tallies — to represent the quantity shown on the marker.
5. Starting Day 7, add this step: With student input, the teacher updates the Calendar Grid Observations chart.

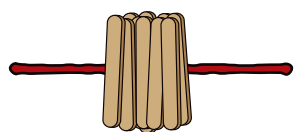
Note

On the 10th of the month, you'll need to show students how to represent 10 with each model so that they can represent 2-digit numbers.

1. For the tally marks, circle the two groups of 5 to make a 10.



2. For the craft sticks, show how to bundle 10 sticks with a chenille stem and explain that you call that bundle a ten.

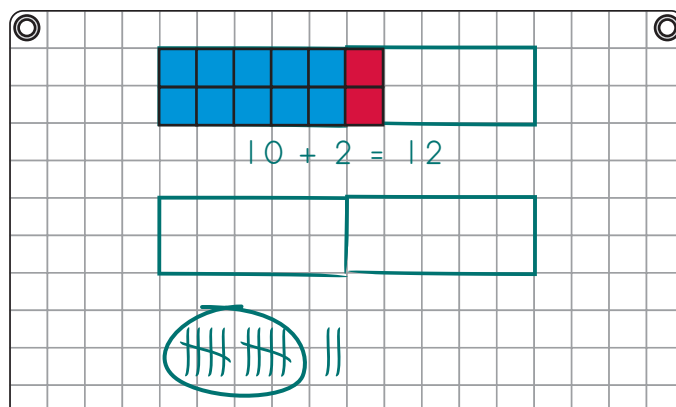


Step 1: Count out 10 sticks onto the chenille stem.



Step 2: Twist the chenille stem tightly to create a bundle.

3. For the double 10-frames, fill in the first 10 spaces on the left with blue tiles, and then switch to red for the next 10 tiles on the right. The equations you write will demonstrate the 10 and more facts ($10 + 1$, $10 + 2$, $10 + 3$, and so on).



Calendar Collector

Follow this update procedure on Days 2–15.

Procedure

1. The student helper spins the Pennies & Nickels spinner to determine the number of coins to collect.
2. The student helper places the day's coins in the weekly collection pocket.
3. The student helper finds matching paper coins, and affixes the paper coins to the Nickels & Pennies Data Collection Graph.
 - » Before students arrive each Monday, the teacher removes the previous week's paper coins from the graph so that students can start the week's collection from scratch. By the last week of the month, there will be three separate sets of coins in the collection pockets.

Days 5, 10, and 15 feature estimating and counting the weekly collection. Consider swapping the days around when needed so that the collection is counted on the last school day of the week. On Day 18, you'll combine the weekly collections and find the total.

Days in School

Follow this update procedure every school day. When Days in School is featured, this update is the first step in the activity.

Procedure

1. The teacher or student helper marks an X on the 100-frame.
 - » When five squares in a column have been filled, a line is drawn through the five squares.
 - » When a column of 10 has been filled, the teacher or student helper draws a line through the second group of five and then colors in the column of 10. The columns of 10 alternate between two colors (e.g., blue, red, blue, red).
2. The student helper points to the chart and leads the class in counting how many days they have been in school. Students count by 1s, and then by 5s and 1s.
3. The teacher writes the day's number in numeral and word form on the Days in School Chart.

Number Corner September

Focus Standards

Calendar Grid Place Value Models

- 1.OA.6** Use strategies to add with sums to 20
- 1.NBT.2a** Demonstrate an understanding that 10 can be thought of as a bundle or group of 10 ones, called a ten
- 1.NBT.2b** Demonstrate an understanding that numbers from 11 to 19 are composed of a ten and some more ones
- 1.MP.7** Look for and make use of structure

Calendar Collector Collecting 5s & 1s with Nickels & Pennies

- Supports 1.NBT** Count by 5s within 100
- Supports 1.NBT** Order numerals within the range of 0–120
- Supports 1.NBT** Group and count objects by 5s and 10s
- 1.MD.4** Organize, represent, and interpret data with up to 3 categories, and answer questions about the data points
- 1.MP.6** Attend to precision

Days in School Finding 5

- Supports 1.NBT** Count by 5s within 100
- 1.NBT.2a** Demonstrate an understanding that 10 can be thought of as a bundle or group of 10 ones, called a ten
- 1.NBT.4** Add a 1-digit number and a 2-digit number
- 1.MP.7** Look for and make use of structure
- 1.MP.8** Look for and express regularity in repeated reasoning

Computational Fluency Adding 10 & More

- 1.OA.6** Use strategies to add with sums to 20
- 1.NBT.2a** Demonstrate an understanding that 10 can be thought of as a bundle or group of 10 ones, called a ten
- 1.NBT.2b** Demonstrate an understanding that numbers from 11 to 19 are composed of a ten and some more ones
- 1.MP.7** Look for and make use of structure
- 1.MP.8** Look for and express regularity in repeated reasoning

Number Path The First Two Decades

- Supports 1.NBT** Order numerals within the range of 0–120
- 1.NBT.1** Count to 120, starting with any number less than 120, including 0 or 1
- 1.NBT.1** Read and write numerals within the range of 0–120
- 1.NBT.2** Demonstrate an understanding that the digits in a 2-digit number represent amounts of tens and ones
- 1.NBT.2b** Demonstrate an understanding that numbers from 11 to 19 are composed of a ten and some more ones
- 1.MP.7** Look for and make use of structure
- 1.MP.8** Look for and express regularity in repeated reasoning

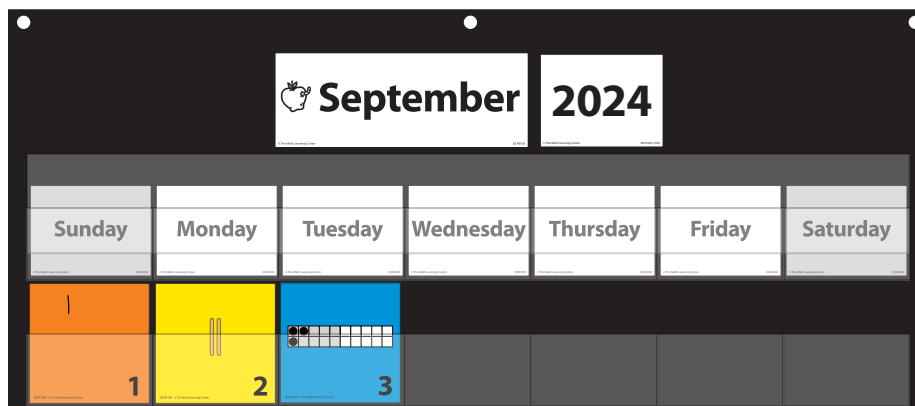


Calendar Grid: Introducing the Calendar Grid & Date Chart

Kit Materials | prepared Calendar Grid display

Today you will introduce the Calendar Grid, Calendar Collector, and Days in School workouts. Depending on your schedule, you might plan to introduce a couple of the workouts during your Number Corner block and the final workout at another time during the day.

- 1 Introduce the Calendar Grid.
 - Seat students close to the Calendar Grid display.
 - Explain that the calendar tells us the date, and the class will use it to tell what day it is. Provide time for students to share how they have used or seen calendars used in their homes and communities. What types of events might they see recorded on a calendar? How have they determined how many days until an event?
 - Post today's calendar marker and any markers that come before it if you are not starting on the first of the month.
 - Explain that you will select a helper each day. The helper will post a new calendar marker for that day (and for Saturday and Sunday if that day is Monday).
- 2 Read the date aloud while pointing to the display cards for the day of the week, the month, the date, and the year. Then invite students to say the date with you.



"Today is Tuesday, September third, 2024."

- 3 Introduce the Date Chart and show students a shortcut way to write the date using only numbers.
 - Remind students of the work they did with months in kindergarten. Point to the month cards and invite students to say the months, January through September, with you while holding up fingers to count.
 - Explain that September is the ninth month of the year and, using a dry-erase marker, write 9 under the Month heading on the Date Chart.
 - Point out the Day heading and write today's day number under it.



Equity-Based Practice

Drawing on multiple resources of knowledge

Some students might have their own cultural experiences with using calendars. Having students connect the Calendar Grid activity to their home and community experiences with calendars can help them value these experiences as relevant and mathematical.



Math Teaching Practice

Establish mathematics goals to focus learning

In Calendar Grid, the teacher builds on students' prior experiences with months of the year to help them understand how months are sequenced. They also draw on their work with patterns in kindergarten to help them identify and describe patterns in the calendar markers each month.

- Explain that the year is abbreviated by writing its last two numbers (in this example, 24), and write these numbers under the Year heading.
- Also explain that the word *September* can be abbreviated as *Sept.* Model writing today's date using this abbreviation at the bottom of the Date Chart.

Month	Day	Year
9	3	24
Sept. 3, 2024		

- Discuss the calendar markers that have been posted so far.
 - Point to the markers and ask students to look at them quietly and give a thumbs-up when they have something to share.
 - Have students share their observations with a partner and then as a class.

Students *I see Popsicle sticks.*

There are three black dots and some boxes on the blue one.

I think it will be a pattern like in kindergarten, so orange will come next.



Calendar Collector: Introducing the Calendar Collector

Copies & Display	PO P8 Penny Poem PO P9 Nickel Poem
Kit Materials	<ul style="list-style-type: none"> prepared Calendar Collector display Pennies & Nickels Spinner
Classroom Materials	prepared Nickels & Pennies Data Collection Graph

- To introduce the Calendar Collector, invite students to talk in pairs and then as a whole group about their own collections (e.g., shells, special toys, stickers).
- Explain that in the Calendar Collector workouts this year, the class will make a new collection together each month. This month, they are collecting nickels and pennies.
- Display some of the plastic nickels and pennies, and ask students how they are the same and different. Guide students to sort the coins into two piles by color.
- Display the Penny Poem and the Nickel Poem. Explain that the poems can help students remember which coin is which. Invite them to follow along as you read each poem aloud.

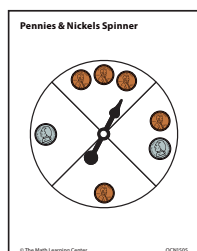


Equity-Based Practice

Challenging spaces of marginality

Many students have authentic experiences of curating, sorting, and maintaining their own collections. Connecting students' collections at home to the collections they will be working with in Calendar Collector centers student experiences and knowledge as legitimate intellectual spaces for investigation of math ideas.

- 5 Draw students' attention to the Pennies & Nickels spinner, and ask volunteers to share observations.

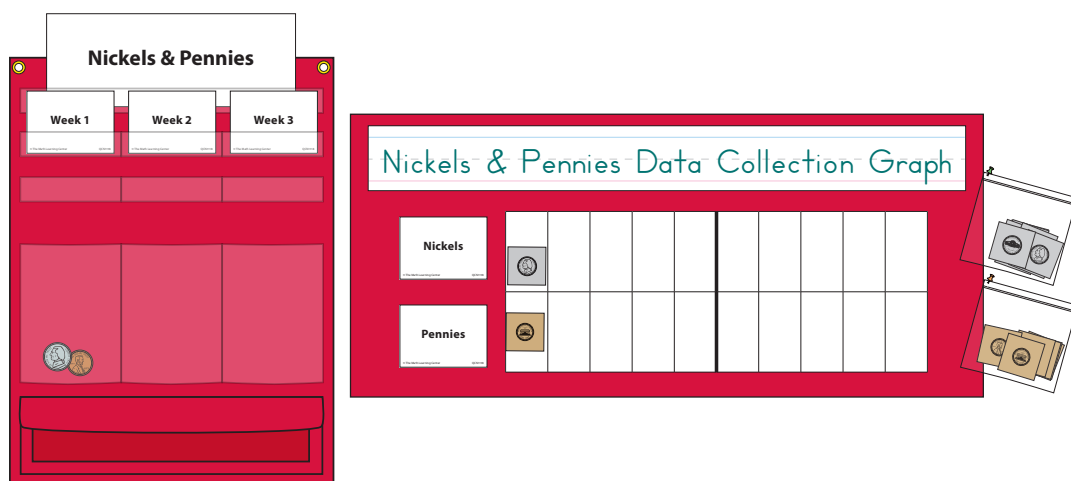


Students *There are 2 nickels on it.*

There are lots of pennies.

I think when it lands in one of the sections, you get money.

- 6 Explain how to use the spinner to collect coins.
 - Call on a volunteer to identify the coins in each section of the spinner.
 - Explain that a student helper will spin the spinner each day. The helper will add the coins shown on the spinner to the week's collection.
- 7 Complete the update procedure together for each day that has passed this week.
 - Select a student helper to spin the spinner.
 - When the spinner arrow lands, ask the class to identify the coins.
 - Have the helper select the correct coins from the supply of plastic coins and place them in the weekly collection pocket.
 - Then have the helper find paper coins to match the plastic coins added to the collection, and post the paper coins to the Nickels & Pennies Data Collection Graph.
 - » Explain to the class that the paper coins represent the coins you added to the week's collection pocket.
 - » Tell the class that this type of graph is called a *picture graph*, because it uses pictures of objects to represent the collection.
 - » Read the graph to students, calling attention to the row for nickels and the row for pennies.
 - » Using removable adhesive putty, affix the paper coins to the graph.





Days in School: Introducing the Days in School Chart

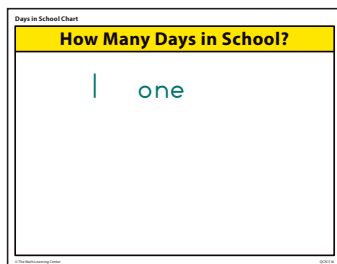
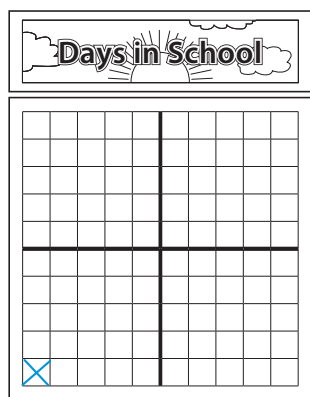
Kit Materials	prepared Days in School display
Classroom Materials	marker (blue)

- 1 Introduce the Days in School update procedure for the month.

When introducing this routine, refer to the 100-frame as the Days in School Chart. Much of the fascination students have with this workout during the first couple of months is based on trying to determine the total number of squares in the frame.

- Draw students' attention to the chart and explain that they'll mark an X in one square for each day they spend in school to show how many days they have been in first grade.
- Make an X in the bottom left square of the 100-frame with a blue marker, and ask students to share what they notice.

- 2 Use a dry-erase marker to write the numeral 1 and the word *one* on the Days in School Chart.



✓ Updates

Complete the update routine for these workouts:

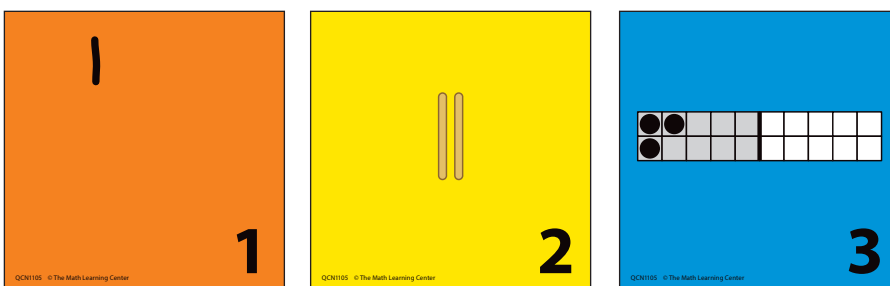
- Calendar Collector
- Days in School



Calendar Grid: Starting Collections of Tallies, Sticks & Tiles

Kit Materials	Calendar Grid display
Classroom Materials	prepared tallies, sticks, and tiles materials

- 1 Before posting the new marker for the day, ask students to share predictions about the marker, first in pairs, and then as a whole group.



Students *I say it's going to be orange, because it goes in a pattern—orange, yellow, blue, and then it starts over with orange again.*

It's going to have 4 on it because 1, 2, 3, and then 4.

We think sticks, like maybe four of those Popsicle sticks.

- 2 Post the marker for the day, and then work with students to build the collection shown on the marker, using tally marks, craft sticks, or tiles.

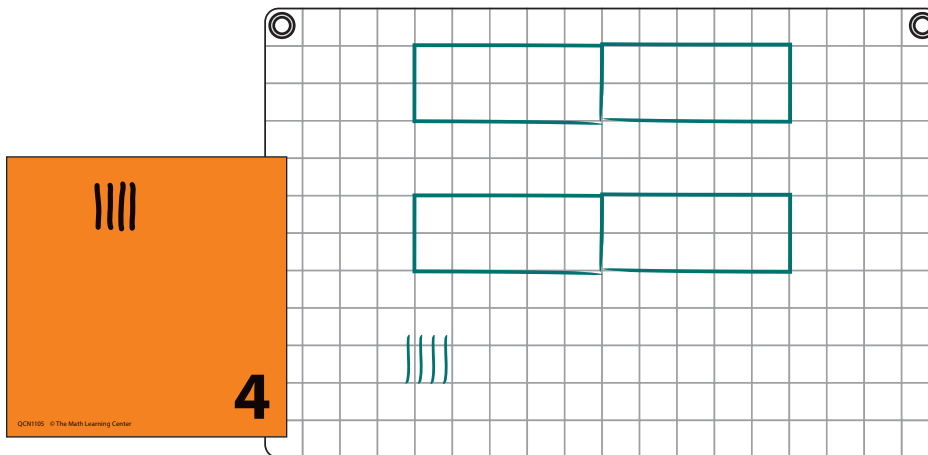
Depending on the dates of the second, third, and fourth days you conduct Calendar Grid, the order in which you start these three collections will vary. In the following examples, imagine that you are teaching Days 2, 3, and 4 on September 4, 5, and 6.

Tally Marks

Post the Magic Wall before this activity.

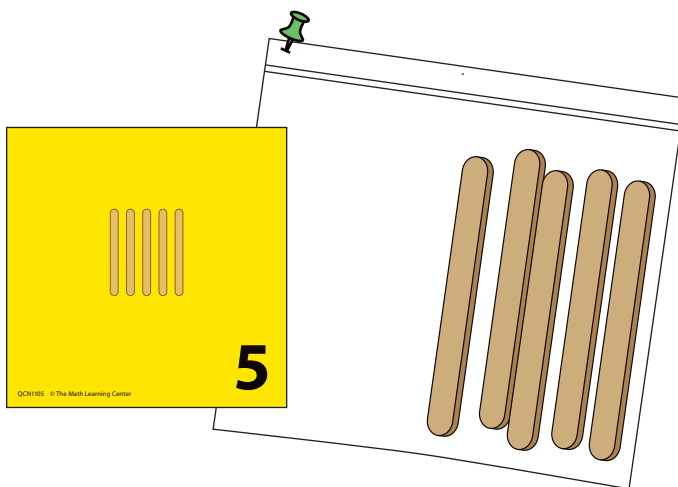
- Explain that the marks on the day's marker are called tally marks and that they help us group and count in sets of 5s and 1s.
- In the space below the double 10-frames you've drawn on the Magic Wall, draw tally marks to represent the day's date. Invite students to count with you as you draw the tally marks.

When drawing tallies for numbers greater than 5, show students how to draw the fifth mark diagonally across a set of four marks. You might describe this fifth mark as making a gate of the set of five. This set of five is now easy to recognize and can be thought of as 5 ones or one group of 5.



Sticks

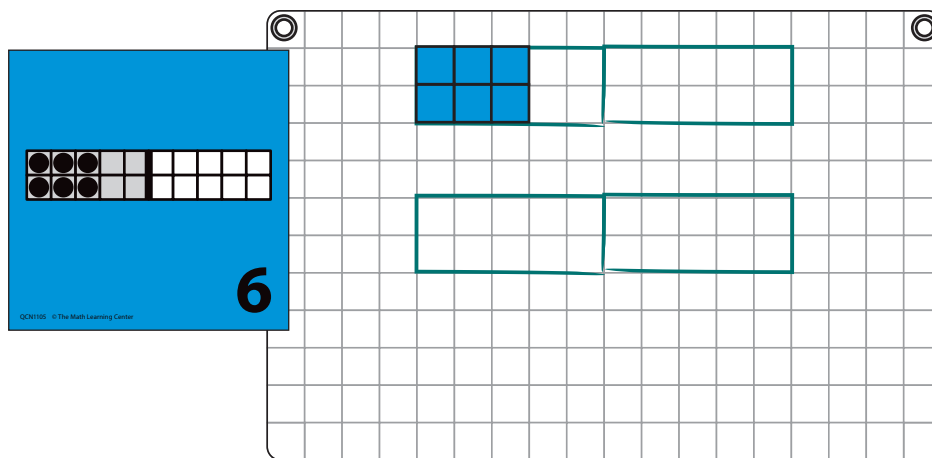
- Show the class the bag of craft sticks.
- Ask students how many sticks you would need to take from this bag and place in the empty bag to equal the number of sticks shown on the day's calendar marker.
- Invite a student helper to count this number of sticks into the second plastic bag.



Tiles in Double 10-Frames

The day you start this collection with the class, set magnetic colored tiles into the first double 10-frame on your Magic Wall to match the number on the calendar marker before you conduct the activity.

- Direct students' attention to the tiles you have posted on the Magic Wall.
 - » Have students share observations about the display on the Magic Wall, first in pairs, and then as a whole class.



- Ask students to determine how many tiles are in the top double 10-frame and then determine how many more tiles they would need to make 10.

Teacher Look at the first 10-frame. How many tiles are in the frame?

Student Six.

Teacher Is there a way to find out how many more tiles we need to make 10, to fill in the left side of the top double 10-frame?

Student You can count them.

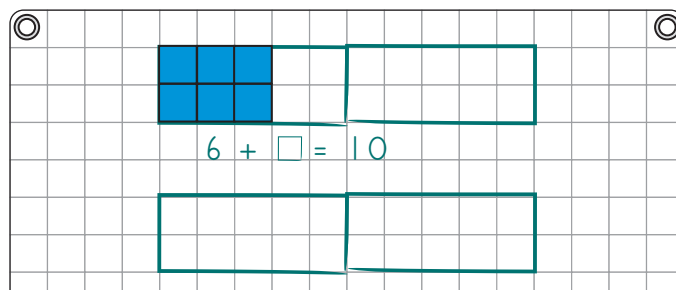
Teacher Let's count the empty squares to see how many more tiles we need. I'll point and you count.

Students 1, 2, 3, 4!

Teacher We have six tiles, and we need four more to fill the first 10-frame.

- Write an equation below the frame to represent the situation, and then discuss.

Teacher Today is September 6, so I put six tiles in the frame, and I wrote 6 to show we have six tiles. How many more tiles do we need to make 10?



Students Four.

Teacher We need four more tiles to make 10, so I am going to write 4 in the square. Read our equation as I point to it.

Students Six plus 4 equals 10.



Math Teaching Practice

Use and connect mathematical representations

Students write equations to represent the part of the 10-frame that is filled. They use a square to represent the number of tiles that are needed to completely fill the frame. Helping students make connections among mathematical representations, such as symbolic equations and visual models, deepens their understanding of mathematics concepts.

1 2 3

Number Path: Introducing the Number Path Pocket Chart

Kit Materials prepared Number Path display (numbers 1–10)

If you haven't already done so, place Number Path display cards 1–10 in order in the first ten pockets. Cover numbers 1–9 with blue cards and number 10 with a red card.

- 1 Direct students' attention to the Number Path pocket chart and ask them to guess which numbers are hidden behind the blue covers.



Many students will be familiar with the Number Path pocket chart from kindergarten. This quick guessing game serves as an informal assessment of what they remember and will engage students who are seeing it for the first time.

- Explain that there are numbers hidden behind the blue covers, and ask students to think about what those numbers might be.
- Call on students to share their ideas.
- If a student guesses a number from 1 to 9, lift the blue cover from that number.

If a student guesses 10, tell them that the number 10 is not behind any of the blue covers. Don't lift the red cover: 10 is the "mystery" number and will remain screened until the tenth day of school.



SUPPORT Reveal a number or two to help students get started.

CHALLENGE If students seem very confident with their guesses, ask them to come up to the Number Path pocket chart and point to the pocket they think holds their number. Invite other students to express their agreement with a signal such as clapping twice.

- 2 Introduce the ones number family and the term *digit*.

Once all the numbers from 1 to 9 are revealed, tell students that this set of numbers is called the *ones family*. Each number in the ones family stands alone. It is exactly one *digit* and gets its own pocket in the Number Path pocket chart.



Math Teaching Practice

Support productive struggle in learning mathematics

In Number Path, students use patterns in the counting sequence to guess which numbers are hidden behind the blue covers. The teacher confirms or challenges students' guesses by sliding up the blue covers. Revealing a number or two to help them get started encourages students to continue in what might be a challenging task.

✓ Updates

Complete the update routine for these workouts:

- Calendar Collector
- Days in School



Calendar Grid: Starting Collections of Tallies, Sticks & Tiles

Kit Materials	Calendar Grid display
Classroom Materials	tallies, sticks, and tiles materials

For more detailed instructions for Starting Collections of Tallies, Sticks & Tiles, refer to Day 2.

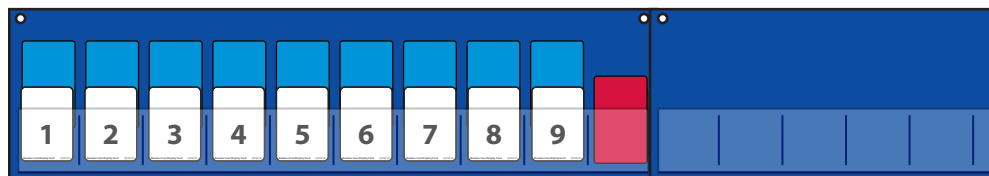
- 1 Before posting the new marker for the day, ask students to share predictions about the marker, first in pairs, and then as a whole group.
- 2 Post the marker for the day, and then work with students to build the collection shown on the marker, using tally marks, craft sticks, or tiles.



Number Path: Counting Forward & Backward Within 9

Kit Materials	Number Path display (numbers 1–10)
Classroom Materials	prepared arrow clip

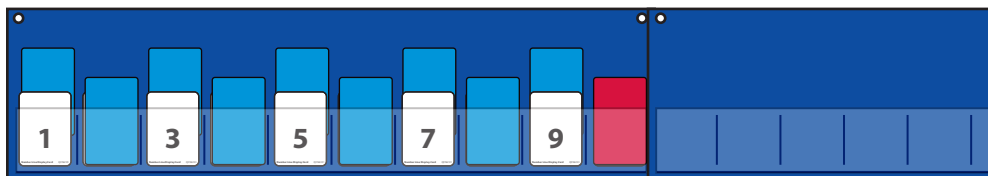
- 1 Invite students to count forward in unison from 1 to 9 as you point to the numbers on the Number Path pocket chart.



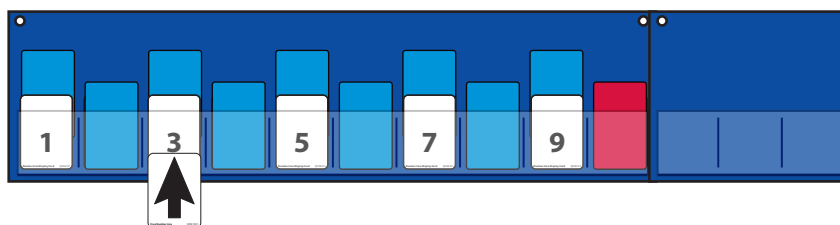
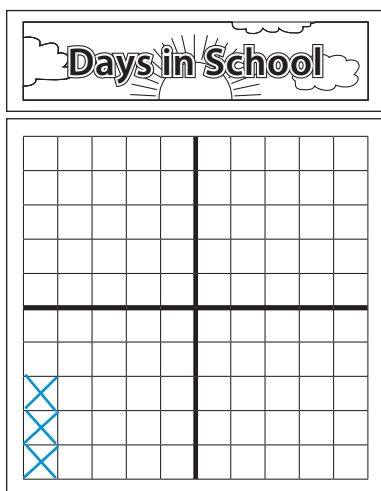
- 2 Ask students to start at numbers other than 1 (e.g., 5, 3, and 7) and count forward to 9 while you point to each number.
- 3 Invite them to count backward from 9 to 1 as you point to the numbers.
- 4 Ask them to count backward from numbers other than 9 (e.g., 4, 6, and 8) while you point.
- 5 Lower the covers to hide numbers 2, 4, 6, and 8.

- 6 Ask students to name the numbers that come before and after 3. After they share their answers, lift the blue covers to reveal the numbers and then lower them again.

Consider using a signal such as tapping the blue cover with your finger to allow all students to have think time before giving the answer.



- 7 Repeat step 6 for the numbers before and after 5, and then 7.
- 8 Help students make a connection between the Number Path pocket chart and the Days in School 100-frame.
- Invite a student to find the number that shows how many days they've been in school.
 - Have them attach the arrow clip to the pocket for that number.



Math Teaching Practice

Build procedural fluency from conceptual understanding

Asking which hidden numbers come before and after a given number develops conceptual understanding of the counting sequence which students can use to support counting on to add and counting back to subtract.

Extension

The Number Path pocket chart is an excellent tool for introducing skip-counting by 2s. Simply reveal the even numbers from 2 to 10 and point to the numbers while students count forward and then backward.

✓ Updates

Complete the update routine for these workouts:

- Calendar Collector
- Days in School



Calendar Grid: Starting Collections of Tallies, Sticks & Tiles

Kit Materials	Calendar Grid display
Classroom Materials	tallies, sticks, and tiles materials

For more detailed instructions for Starting Collections of Tallies, Sticks & Tiles, refer to Day 2.

- 1 Before posting the new marker for the day, ask students to share predictions about the marker, first in pairs, and then as a whole group.
- 2 Post the marker for the day, and then work with students to build the collection shown on the marker, using tally marks, craft sticks, or tiles.



Number Path: Counting Forward & Backward Within 9

Kit Materials	Number Path display (numbers 1–10)
Classroom Materials	arrow clip

For more detailed instructions for Counting Forward & Backward Within 9, refer to Day 3.

- 1 Invite students to count together from 1 to 9 as you point to the numbers on the Number Path pocket chart.
- 2 Ask students to start at numbers other than 1 (e.g., 5, 3, and 7) and count forward to 9 while you point to each number.
CHALLENGE Consider hiding some of the numbers when students are counting.
- 3 Invite them to count backward from 9 to 1 as you point to the numbers.
- 4 Ask them to count backward from numbers other than 9 (e.g., 4, 6, and 8) while you point.
- 5 Lower the covers to hide numbers 3, 5, 7, and 9.



Digital Resources

The Number Line app can be used for counting. In the Number Line app, count forward and backward from 1 to 9; or start at numbers other than 1. Use the line masking tool to cover the numbers. Tap the blue cover to reveal the number.

Apps are available at apps.mathlearningcenter.org.

- 6 Ask students to name the numbers that come before and after 4. After they share their answers, lift the blue covers to reveal the numbers and then lower them again.
- 7 Repeat step 6 for the numbers before and after 6, and then 8.
- 8 Help students make a connection between the Number Path pocket chart and the Days in School 100-frame.
Invite a student to find the number that shows how many days they've been in school, and attach the arrow clip to that pocket.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Days in School

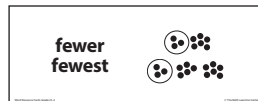


Calendar Collector: Looking at the Weekly Collection Total

Kit Materials	<ul style="list-style-type: none"> • Calendar Collector display • Word Resource Cards for <i>fewest</i>, <i>most</i>, and <i>equal</i> • Pennies & Nickels Spinner
Classroom Materials	<ul style="list-style-type: none"> • Nickels & Pennies Data Collection Graph • standard pocket chart • sticky notes • prepared label card

Ideally, Looking at the Weekly Collection Total should happen on the last school day of the week. Consider shifting the order you teach the days, if needed.

Place the Word Resource Cards in your standard pocket chart. Post the chart in or near your Number Corner discussion area.

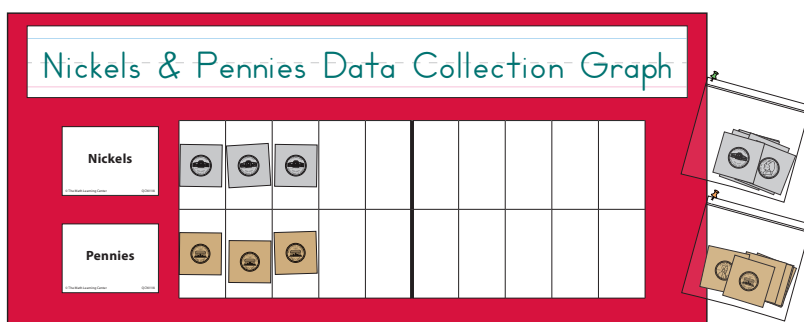


- 1 After completing the update procedure, call students' attention to the Word Resource Cards on display, and explain that these are some of the words they can use to talk about the number of pennies and nickels on the graph they made this week.

Other words students might use when describing the graph include less, more, and least. The word fewest is used to compare things that are counted (quantities), while the word least is used to compare amounts and measurable attributes, such as length or weight. While students are not expected to know or use these distinctions, look for opportunities to model precise language by using fewest when comparing the number of coins.

MLL As you read “most” put your hands together, and then open them up wide. Invite students to do the same. As you read “fewest” open your hands wide and then bring them closer together.

- 2 Invite students to look quietly at the graph for a few moments. What do they notice? What do they see? Then ask them to share their observations, first in pairs and then as a whole group.



- 3 Record students' observations on sticky notes, and post them beside the graph. (Consider using a different color marker to highlight or underline key vocabulary words.)

SUPPORT Use the key questions for this month's Calendar Collector workout to guide the conversation about the graph.

- 4 Elicit student suggestions for how to determine the value of the collection.

If no one suggests grouping pennies into sets of five, you might do so. The graphing mat provides a good visual to support "5 and more" thinking, and can be used as a reference for counting on from 5 rather than counting by 1s.

SUPPORT Some students might need support thinking about the difference between counting the number of coins and determining the value of the collection. For example, thinking of two nickels being worth 10¢, while six pennies are worth just 6¢ could be new learning. Highlight the difference by asking, *Which row has more coins?* and then, *Which row has more cents?* Ask students to explain their answers.

- 5 Write the total value of the coins on a prepared label card, and post it to the Calendar Collector pocket chart.



Equity-Based Practice

Affirming mathematics learners' identities

Recording students' observations and posting them beside the graph explicitly validates students' knowledge. It encourages students to see themselves as problem solvers who can make valuable contributions worthy of being recorded and shared.



Digital Resources

The Money Pieces app can be used to support students in making observations and finding the value of the collection. Toggle money grids for the nickel piece and penny piece to see a visual of each coin's value.

Apps are available at apps.mathlearningcenter.org.

✓ Updates

Complete the update routine for these workouts:

- Calendar Collector
- Days in School



Calendar Grid: Introducing the Calendar Grid Observations Chart

Kit Materials	Calendar Grid display
Classroom Materials	<ul style="list-style-type: none"> • prepared Calendar Grid Observations chart • tallies, sticks, and tiles materials

On the 10th of the month, show students how to represent 10 with each model so they can represent 2-digit numbers.

- 1 After students have made predictions about the marker for the day, and it has been posted, introduce the Calendar Grid Observations chart. Show students the chart you have prepared, and explain that it will help the class keep track of the information on the calendar markers. Students can use this information to find patterns and learn more about the models.
- 2 With student input, fill in the Calendar Grid Observations chart for each marker that has been posted so far this month.

If there are many rows to fill in, focus on today's row and the three that come before it. Fill in the remaining rows at another time.

Calendar Grid Observations				
Date	Model	Tens	Ones	Equation
1	I	0	1	$0 + 1 = 1$
2	II	0	2	$0 + 2 = 2$
3	...	0	3	$0 + 3 = 3$
4	IIII	0	4	$0 + 4 = 4$
5	OOOO	0	5	$0 + 5 = 5$
6	0	6	$0 + 6 = 6$
7	IIII II	0	7	$0 + 7 = 7$
8	OOOO OO	0	8	$0 + 8 = 8$
9	0	9	$0 + 9 = 9$
10	IIII II	1	0	$10 + 0 = 10$

As you fill in the rows beyond 10, use shorthand notation in the Model column to reinforce the idea of ten and some more, as well as to save time. See an example in Day 9.



Math Teaching Practice

Use and connect mathematical representations

Having students write equations to represent the number models on the Calendar Grid markers helps students make connections among the symbolic equations and three visual models for numbers: bundles and sticks, tally marks, and double 10-frames. Connections among mathematical representations deepen understanding of mathematics concepts.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Calendar Collector
- Days in School

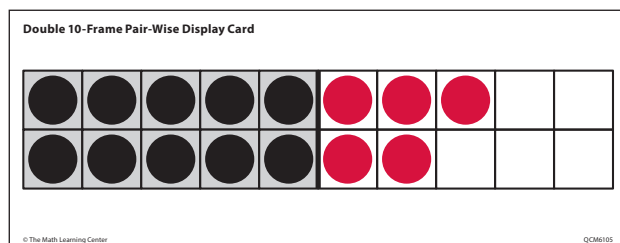


Computational Fluency: Matching Double 10-Frames & Combination Cards

Kit Materials	Double 10-Frame Pair-Wise display cards 11–20
Classroom Materials	<ul style="list-style-type: none"> • standard pocket chart • prepared 10 & More Combination Cards • sticky notes, large (optional)

Select five or six Double 10-Frame Pair-Wise display cards and their matching 10 & More Combination Cards to use in this activity.

- 1 Place one of the Double 10-Frame Pair-Wise display cards in a standard pocket chart, and ask students how they can tell how many dots are on the card.



- Ask students to think quietly about how many dots are on the card and to give a thumbs-up when they have a number to share.
- Invite students to whisper the number to a neighbor, and then call on students to explain how they found the total.

Teacher Now that you've shared with a partner, who wants to tell how many dots are on the card?

Student A It's 15.

Teacher How did you know?

Students I just know that $10 + 5$ is 15, and it's easy to see it.

I can see three 5s, so I went 5, 10, 15.

I saw the 10 and then I said 11, 12, 13, 14, 15.

I counted the whole thing.

- 2 Place four or five other display cards in the pocket chart, and give students time to figure out how many dots are on each card.
- 3 Ask volunteers to identify the number of dots on each card.



Digital Resources

The Number Frames app can be used in place of the Double 10-Frame Pair-Wise display cards. In the app, use the drawing tools to write an equation that matches each card.

Apps are available at apps.mathlearningcenter.org.



Math Teaching Practice

Facilitate meaningful mathematical discourse

Students think independently about how many dots are on the card, and then share their ideas with a partner. Facilitating a discussion where students explain and justify their thinking builds a shared understanding of counting strategies among the class.

Encourage students to share their counting methods in depth. Ask whether any other student used the same strategy. Ask a student to revoice another student's counting strategy. Make connections between strategies.

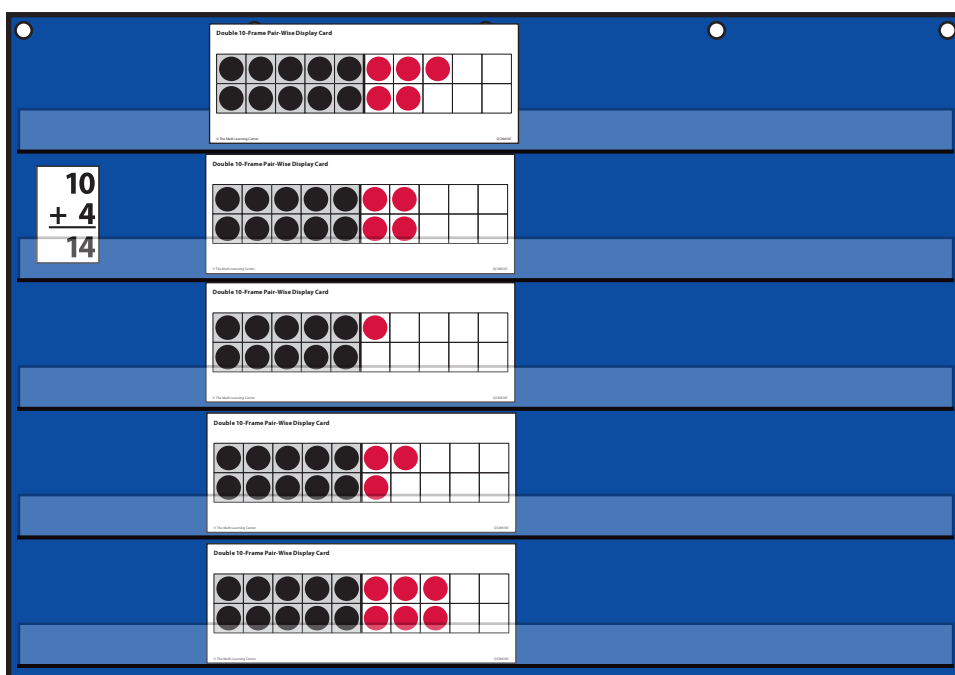
- 4 Hold up one of the 10 & More Combination Cards, and have students find its matching Double 10-Frame Pair-Wise display card.
 - Read the combination card with students, pointing to each numeral and symbol on the card as you go.
 - Ask students to look at the double 10-frame cards and find the one they think matches the written combination. When they think they have a match, they should give a thumbs-up.
 - Call on students to share their thinking.
 - When they identify the matching card, invite a student to place the combination beside its match in the pocket chart.



Equity-Based Practice

Affirming mathematics learners' identities

When students are able to choose which strategy to use, it increases engagement and access to the task for all students. Providing space for all students to contribute to classroom discussions affirms students' identities as mathematics learners.



- 5 Continue until students have matched all the cards you selected for this activity.

CHALLENGE If students are quite familiar with double 10-frames, you might want to use all the Double 10-Frame Pair-Wise display cards in the set and all the combination cards. You might also cover the 10 black dots on each of the display cards with a large sticky note and write “10” on the note. This gives students a chance to count on without seeing the first quantity.

SUPPORT If students haven't worked with 10-frames before, you might show only the right side of the Double 10-Frame Pair-Wise display cards and ask students to find ways to determine how many dots they can see on just this side before you proceed with the activity as written.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Calendar Collector

Days in School: Finding 5

Kit Materials	Days in School display
Classroom Materials	marker (blue)

- 1 Complete the update procedure.
- 2 Call students' attention to the heavy horizontal line running across the middle of the 100-frame.

It is possible that students have already mentioned the line that divides the 10-strip in half. If so, you might want to begin this discussion by recalling students' observations.

Teacher *I notice that something changes on the chart when we get to 5. I'll point, and you count to 5 and let's see if you can find what I notice.*

Students 1, 2, 3, 4, 5.

The line gets darker.

It cuts the boxes in half. You have 5 and 5 more.

- 3 Slowly draw a line to connect the five squares running from the bottom to the midpoint of the first column on the 100-frame while students count those five squares.

Some teachers enjoy making a game out of finding the 5 by having students count on their fingers as the line is drawn and signal "stop."



Teacher *I'm going to put my marker in the first square and connect the squares to the five-line. You count as I draw. Tell me when to stop.*

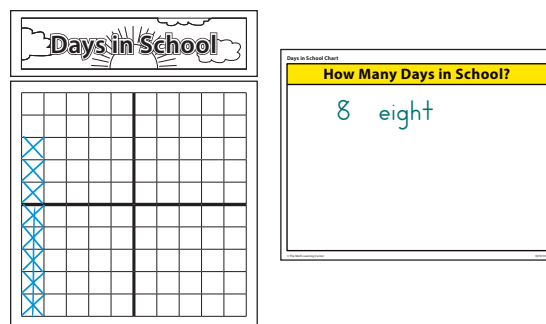
Students 1, 2, 3, 4, 5 — Stop!



Math Practices in Action

Look for and make use of structure

When students attend to the horizontal line that runs across the 100-frame, they are using 5 as a benchmark to count the total squares colored. As the number of days in school increases, students can use this structure, along with that of columns of 10, to count greater numbers.



- Point out that the 5 is part of today's number, and touch the squares as students count the day's number. Invite them to clap or hold up their hands when they get to 5.

When you complete the update procedure over the next few days, continue to have students clap on the 5, show 5 on their fingers, or perform some other action to help them get a sense of where 5 is within the number.

1 2 3 Number Path: Counting Forward & Backward Within 9

Kit Materials	Number Path display (numbers 1–10)
Classroom Materials	arrow clip

For more detailed instructions for Counting Forward & Backward Within 9, refer to Day 3.

- Invite students to count in unison from 1 to 9 as you point to the numbers on the Number Path pocket chart.
- Ask students to start at numbers other than 1 (e.g., 5, 3, and 7) and count forward to 9 while you point to each number.
CHALLENGE Consider hiding some of the numbers when students are counting.
- Invite students to count backward from 9 to 1 as you point to the numbers.
- Ask them to count backward from numbers other than 9 (e.g., 4, 6, and 8) while you point.
- Lower the covers to hide numbers 1, 3, 5, and 7.
- Ask students to name the numbers that come before and after 2. After they share their answers, lift the blue covers to reveal the numbers, and then lower them again.
- Repeat step 6 for the numbers before and after 4, and then 6.
- Help students make a connection between the Number Path pocket chart and the Days in School 100-frame.

Invite a student to find the number that shows how many days they've been in school and attach the arrow clip to that pocket.

✓ Updates

Complete the update routine for these workouts:

- Calendar Collector
- Days in School

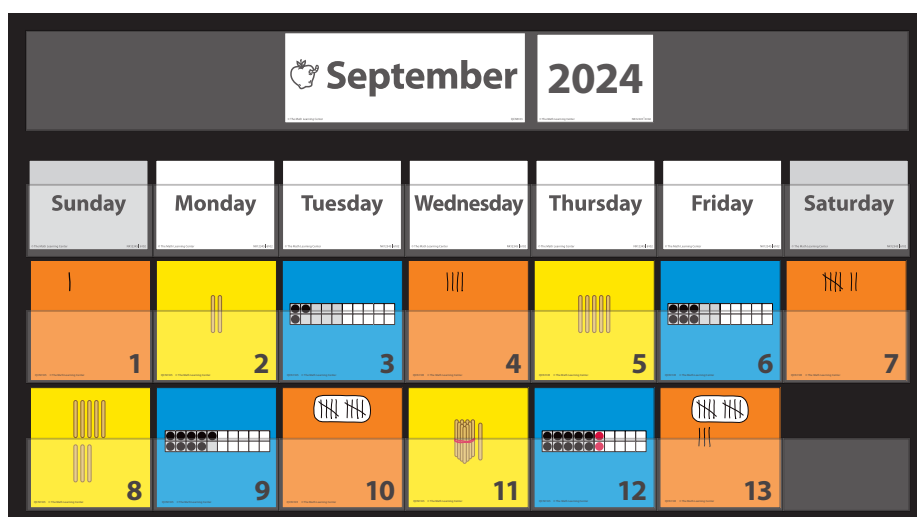


Calendar Grid: Ten & Some More

Kit Materials	Calendar Grid display
Classroom Materials	<ul style="list-style-type: none"> • Calendar Grid Observations chart • tallies, sticks, and tiles materials

After the 10th of the month, you will have frequent opportunities to address two concepts central to place value: 10 can be thought of as a single unit (1 ten) as well as a collection of 10 ones, and the numbers from 11 to 19 are composed of a ten and some more ones. This activity, suitable for any date between the 11th and the 19th, reinforces these concepts.

- 1 After students have made predictions about the marker for the day and it has been posted, discuss the marker, along with any before it that involve 10 and some more.



Point to the markers from 10 forward to the marker for the day. Ask students to think-pair-share what they notice about these calendar markers.

- » Ask students to look at the markers quietly and show thumbs-up when they have an observation to share.
- » Give students time to share their observations with a partner.
- » Select several students to share their observations with the class.

Students There's a white box around the tally marks on number 10.

The sticks are wrapped together on the 11, just like they are in the bag.

Some of the dots are red on the 12. All the dots before this were black.



Instructional Routine

Think-pair-share

Think-pair-share provides an opportunity for students to think about the calendar markers independently and then share their observation with a peer before sharing it publicly. These opportunities to rehearse their thinking increase student engagement in both the mathematical content and the classroom discourse.

- Complete the Calendar Grid Observations chart, and discuss the groups of 10 in each number as you go.

Teacher We have 13 tally marks on our marker for today. Count with me as I draw the marks here on our chart. One, 2, 3, 4, make a gate with 5. Six, 7, 8, 9, make a gate with 10. Now we have two groups of 5. How much is that?

Students Ten!

Five and 5 is 10.

Teacher How many more tally marks do we need to reach 13? Show with your fingers. I see lots of people holding up 3. Let's try it. 10, 11, 12, 13—yep, 10 and 3 more is 13.

- Once you've drawn the model on the chart, use it to reinforce the idea of counting on from 10.

Teacher So we can count on from 10—11, 12, 13. We have 13 tally marks.

- Complete the Tens, Ones, and Equation sections of the chart and discuss.
- Invite students to look quietly at the chart for a few moments. What do they notice? What do they see? Then ask them to share their observations, first in pairs and then as a whole group.
 - Call on a few students to share their observations with the class.

Many students will notice the vertical counting pattern and structure in the Ones column, as well as the vertical column of repeated 0s followed by repeated 1s in the Tens column. Others will notice that these same numbers appear in the equations.



Math Practices in Action

Look for and express regularity in repeated reasoning

When students look for patterns in the chart, they are discovering the regularities of the number system. Single digit numbers have 0 tens, all teen numbers have 1 ten, all numbers in the twenties family have 2 tens, and so on.

Date	Model	Tens	Ones	Equation
1	I	0	1	$0 + 1 = 1$
2	II	0	2	$0 + 2 = 2$
3	III	0	3	$0 + 3 = 3$
4	IIII	0	4	$0 + 4 = 4$
5	IIII I	0	5	$0 + 5 = 5$
6	IIII II	0	6	$0 + 6 = 6$
7	IIII III	0	7	$0 + 7 = 7$
8	IIII II I	0	8	$0 + 8 = 8$
9	IIII II II	0	9	$0 + 9 = 9$
10	IIII I I	1	0	$10 + 0 = 10$
11	IIII I I I	1	1	$10 + 1 = 11$
12	IIII I I II	1	2	$10 + 2 = 12$
13	IIII I I III	1	3	$10 + 3 = 13$

- Invite students to make predictions about future calendar markers or patterns they expect to see.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Days in School



Calendar Collector: Looking at the Weekly Collection Total

Kit Materials	<ul style="list-style-type: none"> • Calendar Collector display • Pennies & Nickels Spinner • Word Resource Cards for <i>greater than</i>, <i>less than</i>, <i>most</i>, <i>fewest</i>, and <i>equal</i>
Classroom Materials	<ul style="list-style-type: none"> • Nickels & Pennies Data Collection Graph • standard pocket chart • label card

Ideally, looking at the Weekly Collection Total should happen on the last school day of the week. Consider shifting the order you teach the days, if needed.

For more detailed instructions, refer to Day 5.

*If not done previously, place the Word Resource Cards for *most*, *fewest*, and *equal* in the standard pocket chart. Post the chart in or near your Number Corner discussion area.*

- 1 After completing the update procedure, call students' attention to the Nickels & Pennies Data Collection Graph, and explain that the class is going to figure out the value of this week's collection.
- 2 Invite students to think-pair-share whether the value of this week's collection is *greater than*, *less than*, or *equal* to last week's collection and why. Use the Word Resource Cards as needed to compare the totals, adding the cards for *greater than* and *less than* to the pocket chart as a reference.
- 3 Call on pairs of students to share and justify their thinking.
- 4 Elicit student suggestions for how to determine the value of the collection and follow their lead in counting the collection.
- 5 Write the total value of the coins on a blank label card, and post it to the Calendar Collector pocket chart. Ask students: *Which week's value is more? Which week's value is less?*

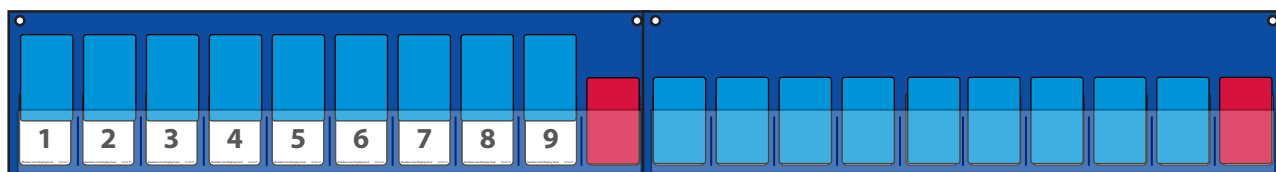
CHALLENGE Ask students to find the difference between the two values.

1 2 3 Number Path: Introducing Decade Day

Copies & Display	NCSB 1 The First Decade Day
Kit Materials	<ul style="list-style-type: none"> • Number Path display (numbers 1–10) • Number Path display cards 11–20 • Number Path cover cards (9 blue and 1 red)
Classroom Materials	<ul style="list-style-type: none"> • prepared frog pointer (Tad) • small toy frog (optional) • prepared classroom number line sentence strip

Be sure to allow 15 minutes for this activity, and do it on your tenth day of school. Since Decade Day is a yearlong routine, it is worth the time to explain it fully and “hook” students into the celebration this first time around.

Add Number Path display cards 11–20 to the Number Path pocket chart, covering numbers 11–19 with blue covers and number 20 with a red cover. Ensure that numbers 1–9 are visible.



1 Introduce the term *decade* and Decade Day to students.

Explain that a *decade* is a group of 10. Tell students that today is Decade Day because it is the tenth day of first grade. On each Decade Day this year, they will celebrate the number family they have been exploring on the Number Path pocket chart for the past 10 days. Today, the class celebrates the ones family.

2 Introduce the frog pointer, and tell students that the frog’s name is Tad.

You can use a small toy frog or puppet to represent Tad, along with the pointer. However, it is not the object but your enthusiasm that captures students’ attention and interest.



Teacher To help us celebrate Decade Day I have brought a friend for you to meet. Would you like to meet my friend?

Students Yes!

Teacher This is Tad. Can you say “hi” to Tad?

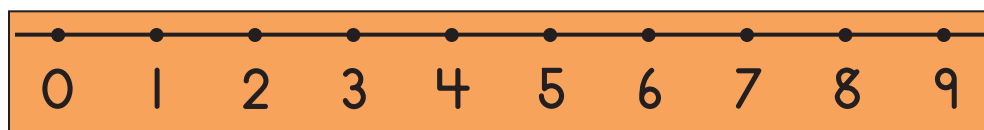
Students Hi, Tad.

- Write T-A-D vertically in a place where all students can see, and explain the acronym.

Teacher *Tad's name has a special meaning. It is an acronym. An acronym is a word in which each letter stands for a different word. The letter T is for ten, just like we have been in school for 10 days. The letter A is for adds. We are going to add a number line to our Number Corner display today. And the D is for decade, like our group of school days. Ten Adds a Decade.*

Ten
Adds
Decade

- Invite students to count the first decade (just the numbers 1–9) while you point to the numbers using the frog pointer.
- With students' input, write the numbers in the first decade (0–9) on a prepared sentence strip to begin the classroom number line.



- Post the first decade strip of the classroom number line near your Number Corner display, keeping in mind that the number line will be 17 or 18 strips long by the end of the school year.

If you do not have space for this many strips, consider posting the first nine strips in a row and then beginning a second row of eight or nine strips below the first row.

- Explain why this number line begins with a 0 instead of a 1.
Tell students that one thing they will do with this number line is count Tad's hops between numbers. The line starts with 0 to show Tad's starting point, and each number shows how many hops it takes to get to that point from 0. When Tad makes the first hop, Tad goes from 0 to 1. When Tad hops from 0 to 3, Tad has taken three hops. Show students what you mean by making the Tad pointer hop from 0 to a few different numbers while you all count together.

- Invite students to think of a motion they could do as they count Tad's hops from 0 to 9.

Some students may be confused that there are 10 numerals, but only nine intervals between the numbers 0 and 9. The tenth hop or interval occurs when Tad reaches the new decade and the numeral 10. This will become more evident to students when the next decade number line strip is added.

- After Tad has landed on the 9, hop Tad to the first red door on the Number Path pocket chart.
- Ask students to whisper to a partner what they think is behind the red door, and then have a student helper lift the red door to reveal the number 10.



Equity-Based Practice

Affirming mathematics learners' identities

Anticipating, understanding, and responding to student mistakes as learning opportunities validates incorrect answers as sources of learning. When discussions include more than correct answers, students feel safer and are more willing to participate.

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

- 11 Explain that 10 is the first number in the teens number family and that the class will spend the next 10 days exploring the rest of the numbers in that family.
- 12 Ask students to find The First Decade Day in their Number Corner Student Books and explain the directions.

Invite students to refer to the models they have been using in the other workouts, including the tenth calendar marker, the coins in the Calendar Collector, the Days in School 100-frame, and the double 10-frames. Help students write equations to describe the groupings they see in these models, and invite the class to draw connections between classmates' equations and any of the models.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Calendar Collector



Days in School: Finding the Two 5s in 10

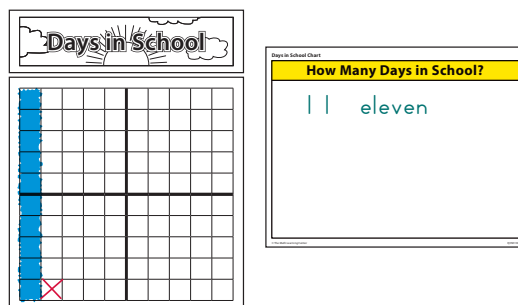
Kit Materials	Days in School display
Classroom Materials	markers (1 blue, 1 red)

Complete steps 1–4 before adding today's X to the 100-frame.

- 1 With the blue marker, draw a line to connect the sixth through the tenth squares on the frame.
- 2 Ask students to hold up their fingers to show how many sets of five they see in the column.

Teacher Let's count to 10 again. This time we'll start at 1 and count quietly until we say "five" with our loud voice. Then we'll keep counting quietly until we say "ten" with our loud voice.

- 3 Count the two groups by 5s — 5, 10 — while pointing to each group. Count again by 5s, this time asking students to count with you.
- 4 Emphasize the fact that two 5s make 10, and color the column blue.
 - Ask students to hold up their fingers as you count the squares together one by one.
 - Count by 1s to 10, emphasizing the 5 and 10.
 - Color the first column solid blue.
- 5 Make today's X with a red marker, count the day's number by 1s with students, and write the number on the chart.



Digital Resources

The Number Pieces app can be used to represent the number of days in school. In the app, use the drawing tools to mark each day, group of 5 days, or group of 10 days. Apps are available at apps.mathlearningcenter.org.

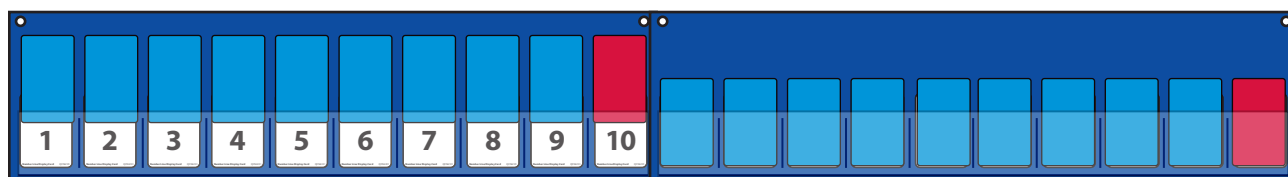
- 6 Count the day's number by 5s and then 1s when you get past 10. Continue to count by 1s, and by 5s and 1s, as you update the 100-frame with the class over the next few days.

1 2 3

Number Path: Counting Forward & Backward Within 19

Kit Materials	Number Path display (numbers 1–20)
Classroom Materials	arrow clip

- 1 Call students' attention to the Number Path pocket chart and ask for observations.



- 2 Have students say goodbye to the ones family by counting aloud as a class from 1 to 9, while you cover each number with a blue card.
- 3 One at a time, reveal numbers 11–19, and ask students what they notice or already know about these numbers. Students will most likely notice some of the following:
 - Numbers 10, 11, and 12 are the funny ones in the family; all the other numbers have “teen” names.
 - Each teen number has the numeral 1 as the first digit to show it has 1 ten.
 - The second numeral tells how many more than 10.
- 4 Ask students where else in Number Corner they have met the teen numbers. Students should be able to connect the teen numbers in the Number Path pocket chart to some of the teen number models appearing on the Calendar Grid and in the Computational Fluency workout. If students do not make these observations on their own, call their attention to the connections.
- 5 Invite students to count forward from 10 to 19 as you point to the numbers. Continue pointing as you count backward from 19 to 10.

SUPPORT Counting backward, the sequence from 14 to 11 is often the most challenging. If students could use more practice, try counting backward from 15 instead of 19. Stay within this range until your students are comfortable counting backward from 15 to 10.

CHALLENGE If students confidently count backwards from 19 to 10, try some of these variations:

- Invite students to count forward to 19, starting on any number between 2 and 14 (e.g., from 5 to 19). Reveal only the start number so that students must visualize the hidden numbers as they count.
- Invite students to count backward from numbers other than 19, stopping on any number that is not 10 or 1 (e.g., from 15 to 8 or 13 to 5). Reveal only the start number so that students must visualize the hidden numbers as they count.

- Hide some of the teen numbers, then ask students to identify the numbers that come before and after the numbers that are still shown. Lift the blue covers to reveal the numbers each time.



- Show just the even numbers from 2 to 18, and point to the numbers while students count forward by 2s and then backward by 2s.
- 6 Invite a student helper to place the arrow clip on the pocket that shows the number of days they have been in school.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Calendar Collector
- Days in School

⊕⊖⊗⊘ Computational Fluency: Ten & More Match Game

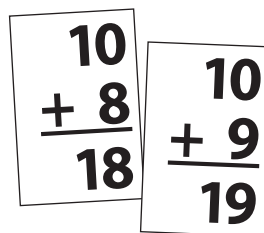
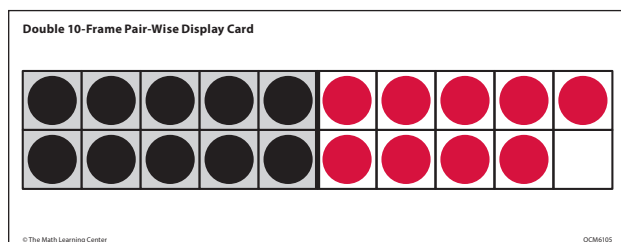
Kit Materials	Double 10-Frame Pair-Wise display cards 11–20
Classroom Materials	<ul style="list-style-type: none"> • Ten & More Combination Cards • standard pocket chart • auditory signal, such as a small bell

In this activity, students play a game in which each person gets a double 10-frame card or a combination card; then they search quietly for their match. There are enough cards for 20 students to play at the same time. If you have fewer than 20 students, remove the appropriate number of cards from each set.

If your class size is between 21 and 24, invite the few students without cards to be inspectors. When a pair of students sits down, an inspector checks their cards and gives a thumbs-up if their match is correct or a headshake to signal that the cards are not a match. If you have an odd number of students, make one or three students inspectors.

If you have 25 or more students, you might let pairs of students share one card, or you can space the students without cards in your meeting area and invite students with cards to join one of these seated inspectors when they think they have a match.

- Place one of the Double 10-Frame Pair-Wise display cards in your standard pocket chart. Ask students to think-pair-share what they notice about this card.
 - Ask students to think quietly about how many dots they see.
 - Have students share in pairs as you listen in on their discussions.
 - Choose two or three pairs to state how many dots are on the card and share their counting strategies.
 - Call specific attention to the strategies that used the idea of 10 and some more.
- Display two combination cards (one of which matches the double 10-frame card), and ask students to decide which one matches the Double 10-Frame Pair-Wise display card.



Equity-Based Practice

Challenging spaces of marginality

Providing opportunities for students to be inspectors distributes mathematics authority and presents it as interconnected among students and teacher. Students share the mathematical knowledge and authority to determine when answers are correct or incorrect rather than looking to the teacher as the sole authority.



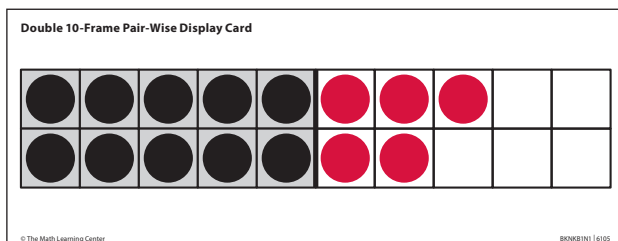
Instructional Routine

Think-pair-share

Think-pair-share provides an opportunity for students to think independently and discuss their observations with a peer before sharing it publicly. It also allows teachers to listen in on students' discussions to select and sequence those who will share with the class.

3 Describe how to play the 10 & More Match Game.

- Tell the class that you're going to pass out the double 10-frame cards and combination cards. They should keep their cards hidden from one another until the game begins.
- Explain that you will ring a bell (or give some auditory signal). When the bell rings, everyone holding a card will get up and look for the person with a matching card (i.e., a matching combination and double 10-frame), without much talking.
- When students find their partner, they should sit down together.



$$\begin{array}{r} 10 \\ + 5 \\ \hline 15 \end{array}$$

- Choose six students to model the game for the rest of the class using three double 10-frame cards and their matching combination cards.
- Distribute all the cards and play the game with the whole class.
- Invite pairs of students to place their matching cards in the pocket chart.
 - When the game is over, call on one pair of students at a time to place their matching cards in the pocket chart in order, from 11 to 20.
 - Ask the class to confirm each match by giving a signal such as clapping twice, putting hands on shoulders, or giving two thumbs up. This provides positive reinforcement for peers and keeps students engaged in the activity. If students disagree with a match, provide an opportunity for both sides to explain or justify their reasoning. Allow students to revise their thinking after listening to both sides of the discussion.
 - Discuss the growing pattern of 1 more.



Equity-Based Practice

Going deep with mathematics

By asking students to confirm matches, the teacher opens up space for student debate. Explaining and justifying solutions helps students dig deep into important mathematical concepts.



Math Practices in Action

Look for and express regularity in repeated reasoning

When students pair the numerals and quantities and then arrange them in order, they are looking for and making use of structure. Many students will see clearly that each number is 1 more than the number before it while others might begin to notice that each number from 11 to 19 is 10 black dots and some red dots. These are just a few of the patterns that the double 10-frame structure helps students recognize.

✓ Updates

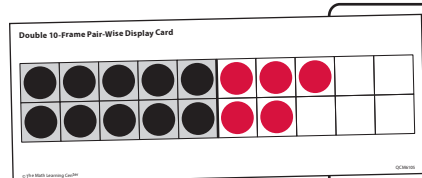
Complete the update routine for these workouts:

- Calendar Grid
- Calendar Collector
- Days in School

Computational Fluency: Writing Ten & More Equations

Copies & Display	NCSB 2 My Math Thinking
Kit Materials	Double 10-Frame Pair-Wise display cards 11–20
Classroom Materials	<ul style="list-style-type: none"> • standard pocket chart • whiteboard or chart paper

- 1 Display a few of the Double 10-Frame Pair-Wise display cards in your standard pocket chart. Invite students to share some of the ways they know how many dots are on a card.
- 2 Guide students in writing an equation to match one of the display cards.
 - Choose one card, and ask students to think about what they see.
 - With student input, write an equation to match the card on the board or a piece of chart paper.



$$10 + 5 = 15$$

Student There are 10 black dots and five red dots. That's 15 dots.

Teacher So, we can write 10 for the 10 black dots on the left side, then a plus sign to show there are more dots, and a 5 to show there are five more red dots. We show 10 dots plus 5 dots with "10 + 5." That tells about the parts. Now, we write "= 15" for the total. In all, we have 15 dots.

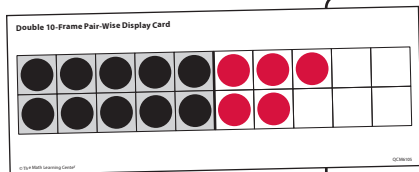
- 3 Have students write equations for other cards on the My Math Thinking page in their Number Corner Student Books.
 - Explain that they should choose a card with their eyes and write an equation that tells about the parts they see and the total number of dots on the card.
 - » Some students might want to draw a quick sketch of the card next to their equation. One way to show this is to draw a 10 with a line through it to represent the 10, and then draw the extra dots. This encourages students to count on from 10 instead of counting by 1s.



Math Teaching Practice

Build procedural fluency from conceptual understanding

Using the Double 10-Frame Pair-Wise display cards helps students see numbers as being composed of parts. In the example, students might quickly see a group of 10 and five more which supports fluency with counting on rather than counting all.



$$10 + 5 = 15$$



- When students have finished, invite them write an equation for another card.

Although the Double 10-Frame Pair-Wise display cards are grouped as one filled frame of 10 on the left and a second frame of more dots to the right, some students will notice the groups of 5 or other configurations. Help students record what they see rather than focusing exclusively on 10 and more combinations. It's possible that some students will want to write more than one equation about a particular card.

CHALLENGE Invite students to think about what kind of subtraction equation they could write by looking at the double 10-frame as a set of 20 minus the unfilled squares. This would result in equations such as $20 - 5 = 15$.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Calendar Collector
- Days in School

1 2 3 Number Path: Choral Counting from 1 to 19

Classroom Materials	<ul style="list-style-type: none"> • chart paper • markers in various colors
----------------------------	--

- 1 Introduce the choral counting routine. Tell students they are going to choral count from 1 to 19, and as they count, you are going to write the numbers on chart paper. Have students watch your marker as a signal to count together. If students begin to rush ahead, pause to reset, then restart the count at an appropriate number.
- 2 Start the count at 1, and as the counting is happening, record the count in two vertical columns on a chart paper:

As students count, pause after 13 and again after 17 to ask what they are noticing.

1	11
2	12
3	13
4	14
5	15
6	16
7	17
8	18
9	19
10	

- 3 At each pause point, facilitate a discussion about what students notice. Use colored markers to highlight patterns and relationships across the numbers.
 - *What patterns do you notice?*
 - *Where do you see that pattern?*
 - *Why do you think that pattern works?*
 - *Did anyone notice the same pattern? Did anyone notice a different pattern?*
 - *How is your pattern related to (student's name) pattern?*



Instructional Routine

Choral counting

Choral counting provides an opportunity to practice the count sequence as well as recognize and discuss number patterns. Students count from 1 to 19 as the teacher records the count in two columns, allowing number relationships and patterns to emerge that might go unnoticed when numerals are shown in a horizontal line.

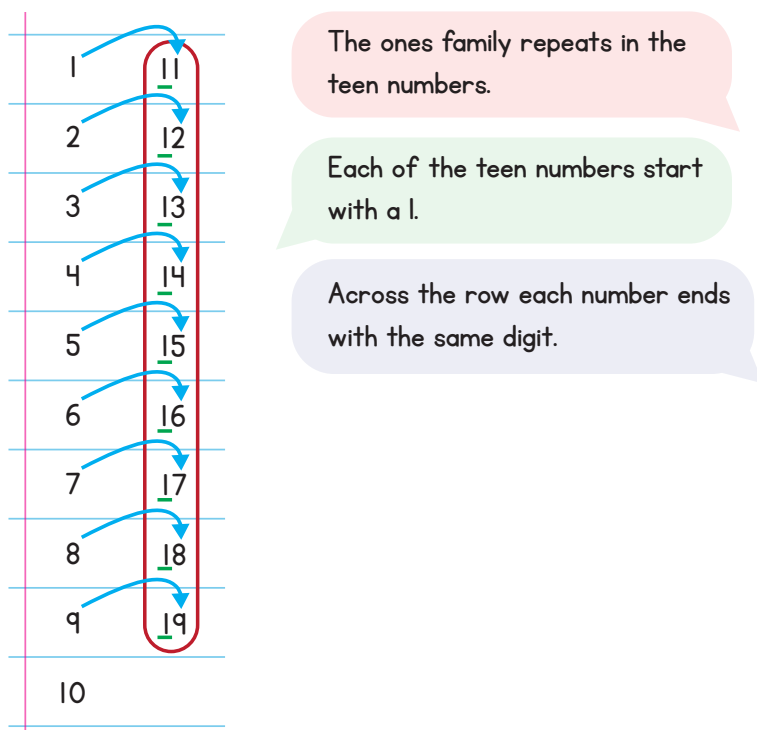


Digital Resources

Enter share code 4PQ1-NQXJ in the Number Chart app to choral count from 1 to 19. Pause the count at 13 and 17 to discuss patterns and predict what number will come next.

Apps are available at apps.mathlearningcenter.org.

- Can we use (student's name) pattern to predict what comes next?
- What number comes next? What would it look like? How do you know?



CHALLENGE Consider continuing the count by having students predict what number would be placed to the right of 14. How did they decide on the number? Could they predict any other numbers in the third column?

- 4 Connect the counting pattern in the chart to other displayed number sequences. Use the following questions to guide your discussion.
 - Where else do you see this number sequence in our classroom?
 - How is our counting chart like the Number Path pocket chart? How is it different?
 - How is our counting chart like the numbers on the Calendar Grid? How is it different?
- 5 Conclude the choral count by highlighting one or two of the patterns, relationships, or structures students have shared.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Days in School



Calendar Collector: Looking at the Weekly Collection Total

Kit Materials	<ul style="list-style-type: none"> • Calendar Collector display • Pennies & Nickels Spinner • Word Resource Cards for <i>greater than</i>, <i>less than</i>, <i>most</i>, <i>fewest</i>, and <i>equal</i>
Classroom Materials	<ul style="list-style-type: none"> • Nickels & Pennies Data Collection Graph • standard pocket chart • sticky notes • label card

Ideally, looking at the Weekly Collection Total should happen on the last school day of the week. Consider shifting the order you teach the days, if needed.

For more detailed instructions, refer to Day 5.

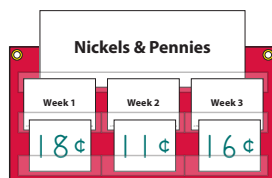
- 1 After completing the update procedure, ask students to look quietly at the Nickels & Pennies Data Collection Graph for a few moments. Then ask them to share their observations with a partner.
- 2 Call on pairs of students to share an observation. Challenge them to use one of the words from the Word Resource Cards.
- 3 Record students' observations on sticky notes, and post the notes beside the graph. (Consider using a different color marker to highlight or underline key vocabulary words.)
- 4 Elicit student suggestions for how to determine the value of the collection and follow their lead in counting the collection.
- 5 Write the total value of the coins on a blank label card, and post it to the Calendar Collector pocket chart.



Equity-Based Practice

Drawing on multiple resources of knowledge

The use of Word Resource Cards supports multilingualism. Images on the Word Resource cards support development of important mathematical concepts. Posting the words also creates a word wall that multilingual learners can reference as they participate in meaningful classroom discussions.



✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Days in School

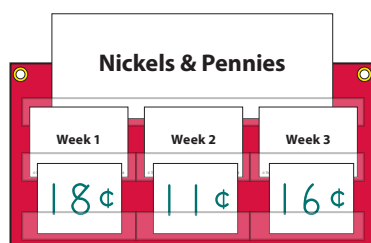


Calendar Collector: Ordering the Three Collections

Kit Materials	<ul style="list-style-type: none"> • Calendar Collector display • Word Resource Cards for <i>greatest</i> and <i>least</i>
Classroom Materials	<ul style="list-style-type: none"> • label cards showing the totals for each collection • standard pocket chart

Post your standard pocket chart in the Number Corner discussion area for this activity.

- 1 Explain to the class that today they will discuss the coins they collected over the past three weeks.
- 2 Review the three collections by pointing to them one at a time and asking students to read each label.



- 3 Remove the label cards from the Calendar Collector pocket chart and have students help you place them in the standard pocket chart in order from least to greatest.
 - Ask the class which collection has the least amount of money.

When comparing discrete objects that can be counted, such as the quantity of coins in the weekly collections, use the words most and fewest. When talking about the amount, or value of the coins, use least and greatest.

Teacher If I wanted to order our collections from the least amount of money we collected to the greatest amount of money collected in which week did we collect the least?

Students Week 2!

Teacher How much money did we collect in Week 2?

Students 11 cents.

Teacher How do you know 11 cents is the least amount collected?

Students Eleven tally marks is less than 16 or 18 tally marks.

When you count, you say 11 before 16 or 18.

Eleven comes before 16 and 18 on the number line.



Equity-Based Practice

Going deep with mathematics

Asking students to explain how they know that 11 cents is the least amount collected requires them to justify and prove their answer. Students need to consider what they know about the number 11 and its relationship to 18 and 16.

- Choose a student to put the card showing the least amount of money in the left side of the standard pocket chart.
- Ask the class in which week they collected the greatest amount of money.
- Hold the card students select, and ask them where the card would go in relationship to the card that is the least.

Teacher *Let's pretend this is our Number Path pocket chart. If 11 goes right here, would 18 go right next to 11 or farther away?*

Students *Farther away.*

Teacher *I'm going to slide 18 away from 11. You tell me when to stop.*

- Point to the remaining card.
- Choose a student to place this card in the pocket chart.
- Discuss where the card should be placed in relation to the two other cards and why.

✓ Updates

Complete the update routine for Calendar Grid.

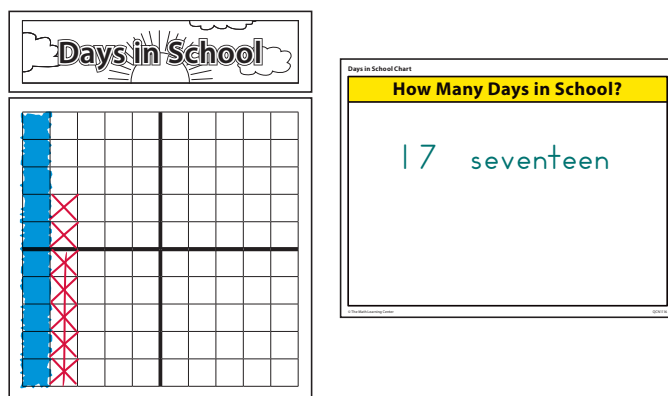


Days in School: Introducing Writing Equations for the Days in School

Kit Materials	Days in School display
Classroom Materials	<ul style="list-style-type: none"> • marker (red) • student whiteboards, markers, and erasers (class set)

- 1 Complete the update procedure.
- 2 Work with student input to write an equation for today's number.
Encourage students to think about the structure of the 100-frame to generate equations.

Teacher *We've made another red X today and figured out we've been in school for 17 days. Let's see if we can figure out how to write an equation to represent what we have on our frame so far.*



Teacher *How many squares do we have in all?*

Students *Seventeen.*

Teacher *I am going to write "17 equals or has the same value." Hmm. What is equal to 17? Let's look at our frame and see what numbers we see inside 17.*

- 3 Give students some time to work in pairs to write additional equations on their whiteboards for the day's number.
- 4 Invite students to share their equations with the class, and record them on the Days in School Chart.
 - Ask students to come up to the chart to show where they see the numbers as they share their ideas for equations.
 - Write the equation suggested by the student on the chart.
 - Continue until you have recorded three or four different equations.



Equity-Based Practice

Leveraging multiple mathematical competencies

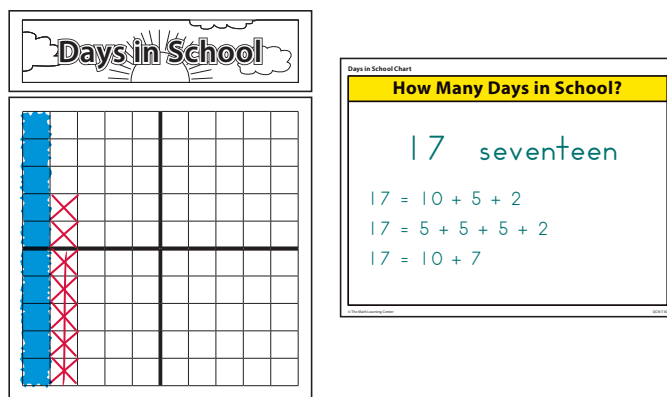
By collaborating with a partner to write equations for the day's number, students are able to draw from their varying math knowledge and skills to complete the task.



Math Practices in Action

Model with mathematics

By drawing connections between the context (the number of days they've been in school) and the models (filled squares in the 100-frame and equations), students gain a deeper understanding of the relationship between the two.



Computational Fluency: Completing the Ten & More Dots Page

Copies & Display	NCSB 3 Ten & More Dots
Kit Materials	Double 10-Frame Pair-Wise display cards 11–20
Classroom Materials	standard pocket chart

- 1 Display a couple of the Double 10-Frame Pair-Wise display cards in the standard pocket chart. Ask students to determine how many dots are on each card.
- 2 Flash a Double 10-Frame Pair-Wise display card for a few seconds. Ask students to work with a partner to show on their fingers how many dots they see.

If needed, model with a student helper how one person shows the 10 on their fingers, while the other person shows the number of dots more than 10 on their fingers.

- 3 Display 10 & More Dots and review the exercise together as a class. Give students the rest of the session to complete the page in their Number Corner Student Books.

This page is a form of independent practice and is not a formal assessment. To ensure that students are getting the most out of this practice, provide assistance as needed and invite them to help each other. Encouraging students to work together and providing them with immediate feedback keeps everyone on the right track.

- 4 When students are done, collect their work.

✓ Updates

Complete the update routine for these workouts:

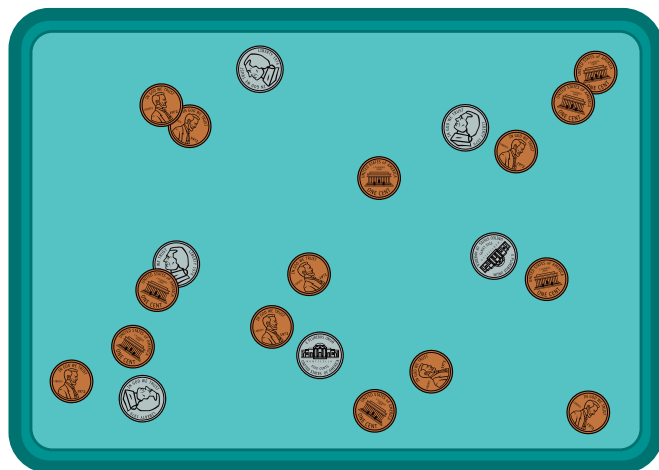
- Calendar Grid
- Days in School



Calendar Collector: Estimating & Counting the Month's Total Collection

Kit Materials	<ul style="list-style-type: none"> • Calendar Collector display • Word Resource Card for <i>estimate</i>
Classroom Materials	<ul style="list-style-type: none"> • tray or shallow container • student whiteboards, markers, and erasers (class set) • whiteboard or chart paper

- 1 Spread the coins from the three pockets of the Calendar Collector pocket chart onto a tray. Show students the coins, and ask them to think quietly about the money in the total collection. Emphasize that they should think about the value of the collection, not the number of coins.



Teacher *We have been collecting nickels and pennies for three weeks. I wonder how much money we have when we put all three collections of coins together?*

- 2 Show students the Word Resource Card for *estimate* and discuss the term with the class.

Teacher *We don't know exactly how much we have, but we can make a close guess by thinking about how much money we collected each week. An estimate is a close guess to the actual or real number.*

- 3 Move the tray around the group so all students get a quick close-up look at the collection.

- 4 Ask students to write their estimate on their whiteboard and set their marker down when they're done.

Just as young children approximate spelling when writing, they might approximate the written form of these numbers, even if they can verbalize them correctly.

- 5 Call on students to share their estimates, and write them on the board or chart paper where the class can see them. As you write, say each number name and the number of tens and ones it contains to set foundations for place value.

Student *Eighty-six.*

Teacher *Eighty-six. That's 8 tens and 6 ones.*

- Don't react to students' estimates, positively or negatively. It is important for students to feel safe sharing their ideas and taking intellectual risks without being evaluated on the spot.
- Call on students until everyone who wants to share has had a turn. It is fine if a student chooses to pass.
- If a student says a number that is already written, draw a line under it to indicate that another person also chooses this number. Some students will want to change their estimates. Allow them to change their answer on their whiteboard and assure them there will be a time for you to record new estimates.

- 6 Ask students how they could go about counting the money in all three pockets combined. Provide time for students to suggest some ideas.

- 7 Decide as a group which strategy to use. Students might suggest grouping the nickels and pennies together, then counting the nickels by 5, and then counting on the pennies by 1.

If some students prefer to use a different strategy, allow them to do so while the larger group uses the agreed upon strategy. Ask the group whether the answers will be the same if a different strategy is used. Some students might already know that a quantity will remain the same regardless of how the coins are counted, while others might need to explore this idea further.

- 8 Stop counting the money when the class has counted all the nickels or reached 15 cents, whichever comes first. Ask students to take a moment to consider the reasonableness of their estimates.

- Show students the coins that are left to count, and ask them whether they should eliminate or change any of the estimates you recorded earlier.

Teacher *We have 15¢ and this many coins left. Are there any estimates on our chart we could cross out?*

Students *We need to cross out 14¢. We've already passed it.*

We need to get rid of 16¢. That's only 1 more cent, and we have lots more.

Let's cross out \$3.00. There's no way we have that much money.

- Invite students to pick up their whiteboards and change their estimates if they like.
- Ask students if anyone has a new estimate they would like added to the class list.
- Record the new estimates on the board. You might use a different color marker to indicate these are the revised estimates.



Math Teaching Practice

Implement tasks that promote reasoning and problem solving

Students work to first estimate and then find the value of the coins in all three pockets. This task provides multiple entry points as students are given the opportunity to brainstorm strategies before deciding on a strategy to use. When students estimate, they are reasoning about numbers.



Math Teaching Practice

Elicit and use evidence of student thinking

Pausing to ask students to consider the reasonableness of their estimates in light of the coins that are left helps make students' thinking visible. This information can be used to inform next steps in instruction.

✓ Updates

Complete the update routine for Days in School.



Calendar Grid: Playing Ten & More Bingo

Copies & Display	NCSB 4 Ten & More Bingo
Kit Materials	<ul style="list-style-type: none"> • Calendar Grid display • Double 10-Frame Pair-Wise display cards 11–19
Classroom Materials	<ul style="list-style-type: none"> • Calendar Grid Observation chart • tallies, sticks, and tiles materials • trains of 10 Unifix cubes (class set plus a few extras)

- 1 Complete the update procedure.
- 2 Engage the class in a dot talk using the Double 10-Frame Pair-Wise display cards.
 - Show students one of the display cards and ask: *How many dots do you see? How do you see them?*
 - Invite students to give a thumbs-up when they have an idea to share.
- 3 Call on volunteers to share their thinking,
 - Draw a quick sketch of how students see the dots, or write an equation.
 - Encourage others to share by asking if anyone sees it a different way.
- 4 Discuss the different ways students see the arrangement.
- 5 Tell students that they will play a bingo game against you today to practice matching dot images with teen numbers.
- 6 Display 10 & More Bingo and have students find the page in their Number Corner Student Books. Select a student to choose one side of the bingo sheet for the class. Explain that the other side will be for you.
- 7 Show one of the Double 10-Frame Pair-Wise display cards. Ask students to think-pair-share, *How many dots did you see? How did you see them?*
- 8 Invite students to place a Unifix cube on the matching number on their bingo board. Do the same on your board.



Instructional Routine

Dot talk

Dot talks encourage students to use structure to determine quantities. Finding groups of 10s, 5s, or pairs of doubles on the double 10-frame encourages efficient counting and computational strategies.



Digital Resources

The Whiteboard app can be used to record the arrangements of dots students see. Use the drawing tools to draw the dots in the arrangement. Then use the text tool to record a matching equation.

Apps are available at apps.mathlearningcenter.org.


Double 10-Frame Pair-Wise Display Card


●	●	●	●	●	●	●	●		
●	●	●	●	●	●	●	●		



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NAME _____ DATE _____

Ten & More Bingo





19	13	15	18		17
11	17		12	19	11
16	12	18	13	15	16

Number Corner Grade 1 Student Book

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September | Calendar Grid

- 9 Repeat steps 7 and 8 until one team wins the game by covering three numbers in a row, column, or diagonal.

✓ Updates

Complete the update routine for these workouts:

- Calendar Grid
- Days in School

123 Number Path: Celebrating the Second Decade Day

Copies & Display	NCSB 5 The Second Decade Day
Kit Materials	Number Path display (numbers 1–20)
Classroom Materials	<ul style="list-style-type: none"> • classroom number line • prepared classroom number line sentence strip • frog pointer (Tad) • arrow clip

- 1 Gather students in the Number Corner area, show them the frog pointer, and remind them that *Tad* stands for *ten adds a decade* and that a *decade* is a group of 10.
- 2 Explain that Tad is here to help them add the second decade — the teens number family that the class has been studying — to the classroom number line.
- 3 On a prepared sentence strip that is a different color than the one already posted, record the second decade with class input, and add it to the classroom number line.
 - Have students read the numbers on the first decade strip as you hop the frog pointer from one number to the next. Start at 0, and as you hop to 1, students say “one.” When you hop from 1 to 2, students say “two,” and so on.
 - Pause at 9, and ask the class what number comes next. Record the numeral 10 on the new sentence strip.
 - Write the numbers 11 to 19 to complete the decade. Each time, say how many tens and ones are in each number as you write the two digits of the number.
 - When the strip is complete, have students say the number of tens and ones in each number: ten, 1 ten and 1, 1 ten and 2, 1 ten and 3 ... 1 ten and 9.
- 4 Ask students to share, first in pairs and then as a group, their observations about the classroom number line. You can prompt some observations by asking specific questions.
 - *What do all of the numbers in the ones family have in common?*
 - *What do all of the numbers in the teens family have in common?*
 - *How is the teens family similar to the ones family?*
 - *How is the teens family different from the ones family?*



Math Teaching Practice

Pose purposeful questions

Posing questions that ask students to compare the numbers in the ones and teens families advances students’ thinking about the structure of the numbers and their arrangement on the number line.



- 5 Invite students to think of an action they can do while they count together the intervals starting at 0 and ending on 19.
- 6 After Tad lands on 19, ask students where Tad will land after the next hop, and then hop Tad to the red door at the end of the Number Path pocket chart.
- 7 Ask students to make predictions about what the second decade number is, and then reveal the number 20 behind the red door.
- 8 Give students the rest of the session to complete the Second Decade Day page in their Number Corner Student Books. Provide as much guidance as needed for students to complete the items on the page.

SUPPORT Invite students to refer to the 20th calendar marker, the coins in the Calendar Collector pocket chart, the Days in School 100-frame, and the double 10-frames to help write their equations for the last prompt. Consider completing this item as a class or gathering students in small groups.



Math Teaching Practice

Support productive struggle in learning mathematics

Inviting students to refer to the 20th calendar marker, the coins in the Calendar Collector pocket chart, the Days in School frame, and the double 10-frames better positions them to engage in productive struggle. With the use of visual models, students can write multiple equations with the number 20.

Print Originals

GRADE 1 – SEPTEMBER





Paper Pennies





Paper Nickels





Graphing Mat



Days in School Title





100-Frame

Glue or tape this edge. (If using tape, attach tape on the back so the front of the sheet can be marked on.)



Ten & More Combination Cards page 1 of 2

$$\begin{array}{r} 10 \\ + 1 \\ \hline \end{array}$$

$$11$$

$$\begin{array}{r} 10 \\ + 2 \\ \hline \end{array}$$

$$12$$

$$\begin{array}{r} 10 \\ + 3 \\ \hline \end{array}$$

$$13$$

$$\begin{array}{r} 10 \\ + 4 \\ \hline \end{array}$$

$$14$$

$$\begin{array}{r} 10 \\ + 5 \\ \hline \end{array}$$

$$15$$

$$\begin{array}{r} 10 \\ + 6 \\ \hline \end{array}$$

$$16$$

(continued on next page)

Ten & More Combination Cards page 2 of 2

$$\begin{array}{r} 10 \\ + 7 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 10 \\ + 8 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 10 \\ + 9 \\ \hline 19 \end{array}$$

$$\begin{array}{r} 10 \\ + 10 \\ \hline 20 \end{array}$$



Penny Poem

PENNY

Penny, penny,
Easily spent.
Copper brown
and worth one cent.



1¢



Nickel Poem

NICKEL

Nickel, nickel,
Silver and thick.
If I need five cents,
You're the coin I'll pick.



5¢

Student Book

GRADE 1 – SEPTEMBER



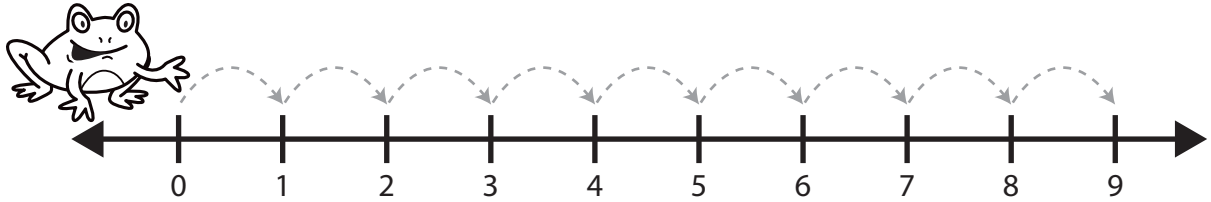
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DATE _____

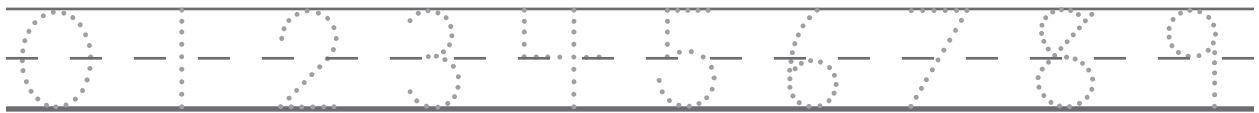


The First Decade Day

- 1 Help Tad hop from 0 to 9 by tracing the hops.



- 2 Trace and say the numbers from 0 to 9.



- 3 Choose a number to practice writing. Write it here as many times as you can.

- 4 What number comes after 9? _____

- 5 Write equations with the number 10.

a $10 =$ _____

b _____ $= 10$

c _____

d _____

NAME

DATE



My Math Thinking



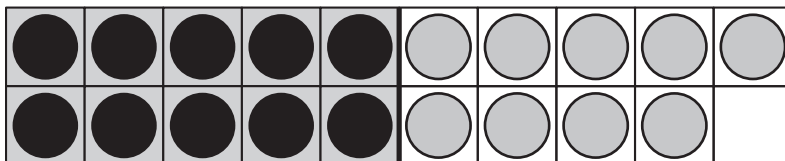
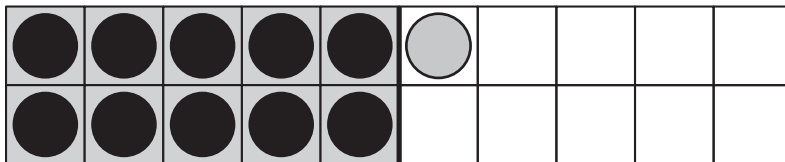
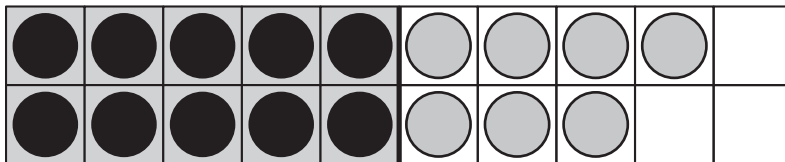
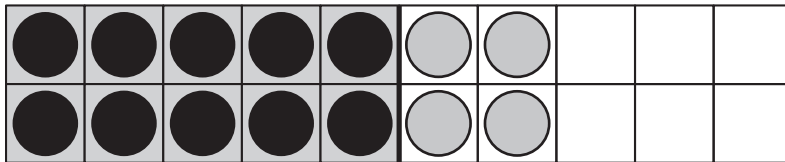
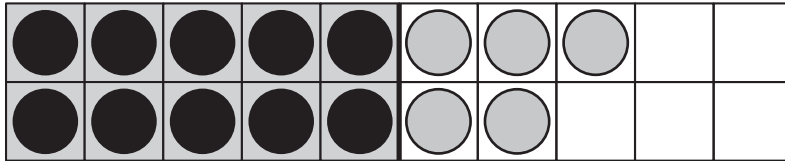
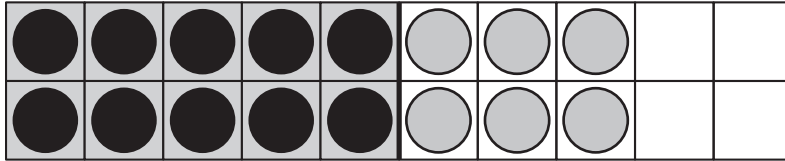
NAME _____

| DATE _____



Ten & More Dots

Write an equation to match each picture below.

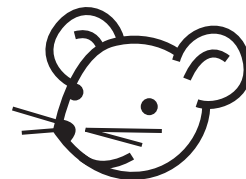


NAME _____

DATE _____



Ten & More Bingo



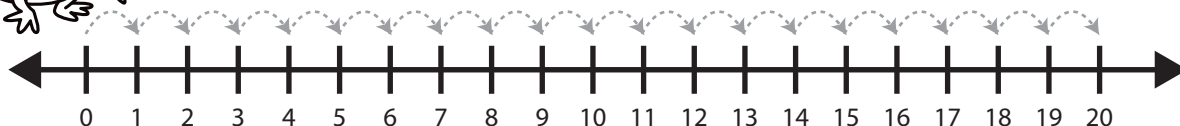
19	13	15
11	17	14
16	12	18

18	14	17
12	19	11
13	15	16

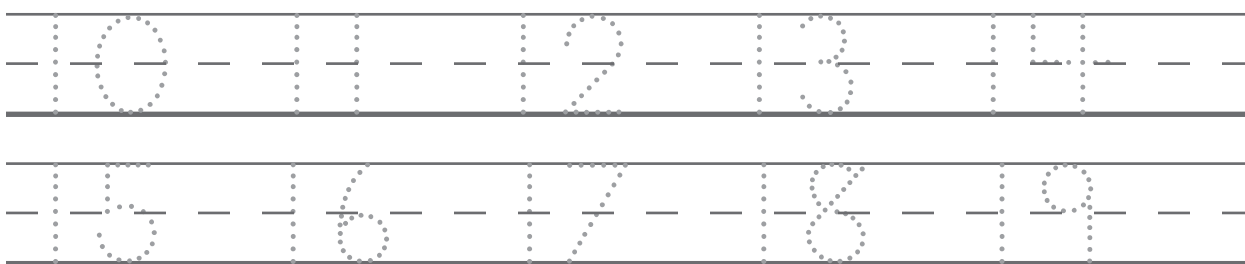


The Second Decade Day

- 1 Help Tad hop from 0 to 20 by tracing the hops.



- 2 Trace and say the numbers from 10 to 19.



- 3 Choose a number to practice writing. Write it here as many times as you can.

- 4 What number comes after 19? _____

- 5 Write equations with the number 20.

a $20 = \underline{\hspace{2cm}}$

b $\underline{\hspace{2cm}} = 20$

c $\underline{\hspace{2cm}}$

d $\underline{\hspace{2cm}}$