

# LEVEL A CENTERS

These materials were adapted from Illustrative Mathematics® IM K-12 Math.<sup>1</sup>

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## CENTER OVERVIEW

[Description adapted from “Center Overview” in [How to Use the Materials](#), a section of the IM K-5 Math Teacher Guide.]

Centers are reusable games or game-like activities intended to give students time to practice skills and concepts that are developed across the level. They are particularly suited to supporting students as they build fluency with a given skill.

According to Illustrative Mathematics, “Each center builds across multiple stages that may span several grades. For example, Get Your Numbers in Order, a center in which students use their understanding of relative magnitude to order numbers, has five stages that span grades 1–5. Center stages are aligned to the Common Core standards.” Level A centers will sometimes target pre-CCRS skills; use these if you suspect your students will need extra review in these areas. You can use centers to build on the content in a lesson or section, develop fluency with a skill, refresh students’ memory of previously taught skills, or preview content for an upcoming unit.

Centers can be implemented in a variety of ways. In Level A, some lessons have dedicated time for students to explore centers. In addition, students can work with centers if they arrive early to class, if the lesson is done before class is over, during independent study time, or during any other free periods throughout the day.

Centers are particularly useful in multilevel classes because they are designed so that students can complete them with little assistance once they understand the instructions. Consider assigning different centers (or different stages of a center) to different groups of students. You could also assign some students to work in centers while others are receiving direct instruction.

[Explore Level B Centers](#)

[Explore Level C Centers](#)

## HOW TO USE THE CENTERS

- 1) Read the lesson plan and identify the centers associated with it. Feel free to choose different centers (or stages) to better meet the needs of your students.
- 2) Navigate to the listed centers using the table of contents and read the descriptions.
- 3) Click on the blue center title to access the printable materials.
- 4) Collect and prepare the materials (considering collecting the materials in plastic bags, envelopes, folders, or other containers so that they can be reused later).
- 5) Teach students how to use the center.
- 6) Make the center available during future center times.

For more information about using centers, read this [article from Illustrative Mathematics](#).

**Materials Note:** Grid paper, 10-frames, dot paper, and other relevant materials can be found at <https://free-printable-paper.com/math-printables/> or [https://lrt.ednet.ns.ca/PD/BLM/table\\_of\\_contents.htm](https://lrt.ednet.ns.ca/PD/BLM/table_of_contents.htm), among other sources.

## CENTERS IN REMOTE INSTRUCTION

Students can complete centers online! Put students in breakout groups and send materials ahead of time or prepare them digitally. Depending on the center, you might want to use some [virtual manipulatives](#) or create a shared document or digital whiteboard for students to access. Please reach out to your program’s digital literacy specialist or the DLDE project for assistance with making centers work for your remote students.

## CENTER DESCRIPTIONS

The center descriptions below are organized based on the unit that they best align to; however, you may find that it is useful to draw in standards from other units to support student learning. For example, you may want to bring in centers that build addition fact fluency when your class is working on measurement.

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## REFERENCE

*Illustrative Mathematics How to Use the Materials - Teachers* | Kendall Hunt. (n.d.). *Im.kendallhunt.com*. Retrieved May 6, 2024, from <https://im.kendallhunt.com/k5/teachers/teacher-guide/how-to-use-the-materials.htm>.

## NUMBER AND OPERATIONS AND ALGEBRAIC THINKING

### CAPTURE SQUARES

Students generate a number and connect two dots that are adjacent to the number. If that line closes the square, they capture it and shade it in their color. The player to shade in three squares first is the winner.

#### **Stage 1: Add Within 10**

##### **Stage Narrative**

Students roll two number cubes and find the sum.

##### **Standards Alignments**

Addressing 1.OA.6

##### **Materials to Gather**

Colored pencils or crayons

Number cubes

##### **Materials to Copy**

Capture Squares Stage 1 Gameboard (groups of two)

##### **Additional Information**

Each group of 2 needs two number cubes.

#### **Stage 2: Subtract Within 10**

##### **Stage Narrative**

Students choose two cards (0–10) and find the difference.

##### **Standards Alignments**

Addressing 1.OA.6

##### **Materials to Gather**

Colored pencils or crayons

Number cards 0–10

##### **Materials to Copy**

Capture Squares Stage 2 Gameboard (groups of two)

#### **Stage 3: Add Within 20**

##### **Stage Narrative**

Students spin to get a number (6–10) and flip a card (0–10) and find the sum. The spinner includes a wild space where students can choose their own number.

##### **Standards Alignments**

Addressing 1.OA.6, 2.OA.2

##### **Materials to Gather**

Colored pencils or crayons

Number cards 0–10

Paper clips

##### **Materials to Copy**

Capture Squares Stage 3 Gameboard (groups of two)

Capture Squares Stage 3 Spinner (groups of two)

**Stage 4: Subtract Within 20****Stage Narrative**

Students spin to get a number (16–20) and flip a card (0–10). They subtract the number on the card from the number on the spinner. The spinner includes a wild space where students can choose their own number.

**Standards Alignments**

Addressing 1.OA.6, 2.OA.2

**Materials to Gather**

Colored pencils or crayons

Number cards 0–10

Paper clips

**Materials to Copy**

Capture Squares Stage 4 Gameboard (groups of two)

Capture Squares Stage 4 Spinner (groups of two)

**CHECK IT OFF**

Students choose two number cards and add or subtract to make given numbers. The partner who makes the most numbers wins.

**Stage 1: Add Within 10****Stage Narrative**

Students take turns picking two number cards (0–5) to make and find the value of an addition expression. Students check off the number that represents the value of the sum (0–10) and then write the addition expression on the recording sheet.

This stage has two different recording sheets, one for kindergarten and another for grade 1. On the kindergarten recording sheet, students fill in blanks to record the expression. On the grade 1 recording sheet, students write in the full expression. Be sure to use the appropriate recording sheet with students.

**Variation**

Students can roll two cubes (and treat 6 as a wild card) to provide visual support for each quantity.

**Standards Alignments**

Addressing 1.OA.5, 1.OA.6

**Materials to Gather**

Number cards 0–10

**Materials to Copy**

Check It Off Stage 1 Recording Sheet Grade 1 (groups of one)

Check It Off Stage 1 Recording Sheet Grade K (groups of one)

**Stage 2: Subtract within 10****Stage Narrative**

Students take turns picking two number cards (0–10) to make and find the value of a subtraction expression. Students check off the number that represents the value of the difference (0–10) and then write the subtraction expression on the recording sheet.

**Variation**

Students can choose whether to add or subtract after picking two number cards.

**Standards Alignments**

Addressing 1.OA.5, 1.OA.6

**Materials to Gather**

Number cards 0–10

**Materials to Copy**

Check It Off Stage 2 Recording Sheet (groups of one)

**Stage 3: Add or Subtract Tens**

**Stage Narrative**

Students take turns picking two number cards that are multiples of 10 (0–90) and choose whether to make an addition or subtraction expression. Students check off the value of the sum or difference (0–90) and then write the addition or subtraction expression on the recording sheet.

**Standards Alignments**

Addressing 1.NBT.4, 1.NBT.6

**Materials to Gather**

Connecting cubes in towers of 10 and singles

**Materials to Copy**

Check It Off Stage 3 Recording Sheet (groups of one)

Number Cards, Multiples of 10 (0-90) (groups of two)

## COMPARE

Both partners flip over a card, and the partner whose card has the greater value takes both cards. The game is over when each partner runs out of cards to flip over. The partner with the most cards wins.

**Stage 1: Add and Subtract Within 10**

**Stage Narrative**

Students use cards with addition and subtraction expressions within 10.

**Standards Alignments**

Addressing 1.OA.6

**Materials to Copy**

Compare Stage 1 Addition Cards to 10 (groups of two)

Compare Stage 1 Subtraction Cards to 10 (groups of two)

**Stage 2: Add and Subtract Within 20**

**Stage Narrative**

Students use cards with addition and subtraction expressions within 20.

**Standards Alignments**

Addressing 1.OA.6

**Materials to Copy**

Compare Stage 2 Addition Cards to 20 (groups of two)

Compare Stage 2 Subtraction Cards to 20 (groups of two)

## COUNTING COLLECTIONS

Students count collections and represent how they counted.

### Stage 3: Up to 120

#### Stage Narrative

Students are given a collection of up to 120 objects. They record an estimate for how many objects they think are in their collection. Then, they work with a partner to figure out how many objects are in their collection, and each partner records how many. Students may draw pictures, write numbers or equations, or use base-ten representations to represent their collection.

#### Standards Alignments

Addressing first grade counting standards (pre-CCRS)

#### Materials to Gather

10-frames

Collections of objects

Cups or paper plates

#### Materials to Copy

Counting Collections Stage 3 Recording Sheet (groups of 1)

#### Additional Information

Create a collection of up to 120 objects per group of two students (buttons, two-color counters, linking cubes, paper clips, pattern blocks, square tiles, paper placemats).

## FIND THE PAIR

Each player starts with five cards, and the rest are turned face down in a pile. Students ask their partner for a number that would make the target number when added to the number on one of their cards.

### Stage 2: Make 10

#### Stage Narrative

Partner A asks their partner for a number that would make 10 when added to the number on one of their cards. If Partner B has the card, they give it to Partner A. If not, Partner A chooses a new card. When students make the target number 10, they put down those two cards and write an equation to represent the combination. Students continue playing until one player runs out of cards. The player with the most pairs wins.

#### Standards Alignments

Addressing 1.OA.6

#### Materials to Gather

10-frames

Connecting cubes or counters

Number cards 0–10

#### Materials to Copy

Find the Pair Stage 2 Recording Sheet (groups of one)



## **FIVE IN A ROW: ADDITION AND SUBTRACTION**

Students take turns generating numbers and placing counters on a board. The first partner to have five counters in a row wins.

**Stage 1:** Add 1 or 2

**Stage Narrative**

Students choose a number card 0-10 and choose to add 1 or 2 to the number on their card and then place their counter on the sum.

**Standards Alignments**

Addressing 1.OA.5

**Materials to Gather**

Number cards 0–10

Two-color counters

**Materials to Copy**

Five in a Row Addition and Subtraction Stages 1 and 2 Gameboard (groups of two)

**Additional Information**

Each group of two needs 25 counters.

**Stage 2:** Subtract 1 or 2

**Stage Narrative**

Students choose a number card 0-10 and choose to subtract 1 or 2 from the number on their card and then place their counter on the difference.

**Variation**

Students can choose to add or subtract 1 or 2.

**Standards Alignments**

Addressing 1.OA.5

**Materials to Gather**

Number cards 0–10

Two-color counters

**Materials to Copy**

Five in a Row Addition and Subtraction Stages 1 and 2 Gameboard (groups of two)

**Additional Information**

Each group of two needs 25 counters.

**Stage 3:** Add 7, 8, or 9

**Stage Narrative**

Students choose a number card 0-10 and choose to add 7, 8, or 9 to the number on their card and then place their counter on the sum.

**Standards Alignments**

Addressing 1.OA.5, 1.OA.6

**Materials to Gather**

Number cards 0–10

Two-color counters

**Materials to Copy**

Five in a Row Addition and Subtraction Stage 3 Gameboard (groups of two)

**Additional Information**

Each group of two needs 25 counters.

**Stage 4: Add or Subtract 10****Stage Narrative**

Students choose a card that shows a multiple of 10. They choose whether to add or subtract 10 from the number on their card and then place their counter on the sum or difference.

**Standards Alignments**

Addressing 1.NBT.5

**Materials to Gather**

10-frames

Connecting cubes in towers of 10 and singles

Two-color counters

**Materials to Copy**

Five in a Row Addition and Subtraction Stage 4 Gameboard (groups of two)

Number Cards, Multiples of 10 (0-90) (groups of two)

**Additional Information**

Each group of two needs 25 counters.

**Stage 5: Add Within 100 Without Composing****Stage Narrative**

Partner A chooses two numbers and places a paper clip on each number. They add the numbers and place a counter on the sum. Partner B moves one of the paper clips to a different number, adds the numbers, and places a counter on the sum. Students take turns moving one paper clip, finding the sum, and covering it with a counter.

Two gameboards are provided, one where students add a one-digit and a two-digit number and one where they add a two-digit and a two-digit number.

**Standards Alignments**

Addressing 1.NBT.4

**Materials to Gather**

Paper clips

Two-color counters

**Materials to Copy**

Five in a Row Addition and Subtraction Stage 5 Gameboard (groups of 2)

**Additional Information**

Each group of two needs 25 counters and 2 paper clips.

**Stage 6: Add Within 100 with Composing****Stage Narrative**

Partner A chooses two numbers and places a paper clip on each number. They add the numbers and place a counter on the sum. Partner B moves one of the paper clips to a different number, adds the numbers, and places a counter on the sum. Students take turns moving one paper clip, finding the sum, and covering it with a counter.

**Standards Alignments**

Addressing 1.NBT.4

**Materials to Gather**

Paper clips, two-color counters

**Materials to Copy**

Five in a Row Addition and Subtraction Stage 6

Gameboard (groups of two)

**Additional Information**

Each group of two needs 25 counters and 2 paper clips.

## GET YOUR NUMBERS IN ORDER

Students use their understanding of relative magnitude to order numbers. Students take turns placing numbers on the board and must make sure that the numbers across the board go from least to greatest. If a number cannot be placed on the board, students say “pass” and get one point. Then, it is their partner’s turn. The player with the fewest points when all the boxes on the board are filled is the winner.

### **Stage 1: Two-digit Numbers**

#### **Stage Narrative**

Students remove the cards that show 10 before they start. Then they choose two number cards and make a two-digit number. Students write their number in any space on the board, as long as the numbers from left to right go from least to greatest. If students cannot place their number, they get a point. The player with the fewest points when the board is filled is the winner.

#### **Standards Alignments**

Addressing 1.NBT.3

#### **Materials to Gather**

Dry erase markers

Number cards 0–10

Sheet protectors

#### **Materials to Copy**

Get Your Numbers in Order Stage 1 Gameboard (groups of two)

## GRAB AND COUNT

Students grab a handful of objects to count.

### **Stage 1: Pattern Blocks**

#### **Stage Narrative**

Each student grabs a handful of pattern blocks and puts them together with their partner’s. They guess how many pattern blocks there are and then count the blocks. Students record their guess and the actual number of blocks on the recording sheet.

#### **Variation**

Students can count their own group of blocks first and record an expression to represent the total number of pattern blocks.

#### **Standards Alignments**

Addressing kindergarten counting standards (pre-CCRS)

#### **Materials to Gather**

Pattern blocks

#### **Materials to Copy**

Grab and Count Stage 1 Recording Sheet (groups of one)

#### **Additional Information**

Each group of two needs around 20 pattern blocks.

**Stage 2: Ones Cubes****Stage Narrative**

Each student grabs a handful of ones cubes and puts them together with their partner's. They estimate how many cubes there are and then count the cubes. Students record their estimate and the actual number of cubes on the recording sheet.

**Variation**

Students can count their own group of cubes first and record an equation to represent the total number of cubes.

**Standards Alignments**

Addressing first grade counting standards (pre-CCRS)

**Materials to Gather**

Base-ten blocks

**Materials to Copy**

Grab and Count Stage 2 Recording Sheet (groups of one)

**Additional Information**

Each group of two needs around 80 ones cubes from the base-ten block set.

**GREATEST OF THEM ALL**

Students use digit cards to create the greatest possible number. As each student draws a card, they choose where to write it on the recording sheet. Once a digit is placed, it can't be moved. Students compare their numbers using  $<$ ,  $>$ , or  $=$ . The player with the greater number in each round gets a point.

Students should remove cards that show 10 from their deck.

**Stage 1: Two-digit Numbers****Stage Narrative**

Students make two-digit numbers.

**Variation**

Students try to make the number with the least value.

**Standards Alignments**

Addressing 1.NBT.3

**Materials to Gather**

Number cards 0–10

**Materials to Copy**

Greatest of Them All Stage 1 Recording Sheet (groups of one)

## HOW CLOSE?

Students pick a given number of digit cards and then choose a subset of those to make an expression that yields a number as close as possible to the target number.

### **Stage 1: Add to 20**

#### **Stage Narrative**

Before playing, students remove the cards that show 10 and set them aside.

Each student picks 5 cards and chooses 3 of them to write an addition expression with 3 addends. The student whose sum is closest to 20 wins a point for the round. Students pick new cards so that they have 5 cards in their hand and then start the next round.

#### **Standards Alignments**

Addressing 1.OA.6, 2.OA.2

#### **Materials to Gather**

Number cards 0–10

#### **Materials to Copy**

How Close? Stage 1 Recording Sheet (groups of one)

### **Stage 2: Subtract from 20**

#### **Stage Narrative**

Before playing, students remove the cards that show the number 10 and set them aside.

Each student picks 4 cards and chooses 2 or 3 to subtract from 20 to get close to 0. The student whose difference is closest to 0 wins a point for the round. Students pick new cards so that they have 4 cards in their hand and then start the next round.

#### **Standards Alignments**

Addressing 1.OA.6, 2.OA.2

#### **Materials to Gather**

Number cards 0–10

#### **Materials to Copy**

How Close? Stage 2 Recording Sheet (groups of one)

### **Stage 3: Add to 100**

#### **Stage Narrative**

Before playing, students remove the cards that show the number 10 and set them aside. Each student picks 7 cards and chooses 4 of them to create 2 two-digit numbers. Each student adds the numbers and the student whose sum is closest to 100 wins a point for the round. Students pick new cards so that they have 7 cards in their hand and then start the next round.

#### **Standards Alignments**

Addressing 1.NBT.4

#### **Materials to Gather**

Number cards 0–10

#### **Materials to Copy**

How Close? Stage 3 Recording Sheet (groups of one)

## **MYSTERY NUMBER**

Each student has a mystery number. They give clues to their partner based on sentence stems or vocabulary words. After each clue, the partner guesses the mystery number. Players earn points based on how many clues they need to identify the mystery number. The player with the lowest score after five rounds wins.

### **Stage 1: Two-digit Numbers**

#### **Stage Narrative**

Students pick two cards and make a mystery two-digit number. Students give clues based on the sentence starters.

#### **Standards Alignments**

Addressing 1.NBT.2

#### **Materials to Gather**

Number cards 0–10

#### **Materials to Copy**

Mystery Number Stage 1 Directions (groups of two)

### **Stage 2: Three-digit Numbers**

#### **Stage Narrative**

Students pick three cards and make a mystery three-digit number. Students give clues based on the sentence starters.

#### **Standards Alignments**

Addressing 1.NBT.2

#### **Materials to Gather**

Number cards 0–10

#### **Materials to Copy**

Mystery Number Stage 1 Directions (groups of two)

## **NUMBER PUZZLES: ADDITION AND SUBTRACTION**

Students use the digits 0–9 to make each addition or subtraction equation true.

### **Stage 1: Within 10**

#### **Stage Narrative**

Students work together to use digit cards to make addition and subtraction equations within 10 true. Each digit card may only be used one time on a page.

#### **Standards Alignments**

Addressing 1.OA.8

#### **Materials to Copy**

Number Puzzles Addition and Subtraction Stage 1 Gameboard (groups of two)

Number Puzzles Digit Cards (groups of two)

### **Stage 2: Within 20**

#### **Stage Narrative**

Students work together to use digit cards to make addition and subtraction equations within 20 true. Each digit card may only be used one time on a page.

#### **Standards Alignments**

Addressing 1.OA.6, 1.OA.8, 2.OA.2

**Materials to Copy**

Number Puzzles Addition and Subtraction Stage 2 Gameboard (groups of two)

Number Puzzles Digit Cards (groups of two)

**Stage 3: Within 100 Without Composing****Stage Narrative**

Students work together to use digit cards to make addition and subtraction equations within 100 without composing true. Each digit card may only be used one time on a page.

**Standards Alignments**

Addressing 1.NBT.4, 1.OA.8

**Materials to Copy**

Number Puzzles Addition and Subtraction Stage 3 Gameboard (groups of two)

Number Puzzles Digit Cards (groups of two)

**Stage 4: Within 100 with Composing****Stage Narrative**

Students use digit cards to make addition and subtraction equations true. They work with sums and differences within 100 with composing and decomposing. Each digit card may only be used one time on a page.

**Standards Alignments**

Addressing 1.NBT.4, 1.OA.8

**Materials to Copy**

Number Puzzles Addition Stage 4 Gameboard (groups of two)

Number Puzzles Digit Cards (groups of two)

**NUMBER RACE**

Students generate and write numbers. Students continue to play until they've filled up a column.

**Stage 3: Add to 10****Stage Narrative**

Students take turns rolling two dot cubes. They find the sum and record it in the corresponding column on their gameboard. If the sum is more than 10, students roll the cubes again.

**Standards Alignments**

Addressing 1.OA.5, 1.OA.6

**Materials to Gather**

Dot cubes

**Materials to Copy**

Number Race Stage 3 Gameboard (groups of one)

**Additional Information**

Each group of two needs two dot cubes.

## SHAKE AND SPILL

Students shake counters in a cup and spill them out of the cup.

### **Stage 3:** Represent

#### **Stage Narrative**

Students decide together how many counters to use (up to 10). One partner spills the counters. Both partners represent the red and yellow counters on the recording sheet.

This stage has two different recording sheets, one for kindergarten and another for grade 1. Be sure to use the appropriate recording sheet with students.

#### **Standards Alignments**

Addressing 1.OA.6

#### **Materials to Gather**

Crayons

Cups

Two-color counters

#### **Materials to Copy**

Shake and Spill Stage 3 Recording Sheet Grade 1 (groups of one)

Shake and Spill Stage 3 Recording Sheet Kindergarten (groups of one)

#### **Additional Information**

Each group of two needs a cup and 10 two-color counters.

### **Stage 4:** Cover (up to 10)

#### **Stage Narrative**

Students decide together how many counters to use (up to 10). Partner A closes their eyes while Partner B shakes, spills, and covers up the yellow counters with a cup. Partner A determines how many counters are under the cup and explains how they know. Both partners record the round. Switch roles and repeat.

This stage has two different recording sheets, one for kindergarten and another for grade 1. Be sure to use the appropriate recording sheet with students.

#### **Standards Alignments**

Addressing 1.OA.6

#### **Materials to Gather**

Cups

Two-color counters

#### **Materials to Copy**

Shake and Spill Stage 4 and 5 Recording Sheet (grades 1 and 2) (groups of one)

Shake and Spill Stage 4 Recording Sheet Kindergarten (groups of one)

#### **Additional Information**

Each group of two needs a cup and 10 two-color counters.

### **Stage 5:** Cover (up to 20)

#### **Stage Narrative**

Students decide together how many counters, between 11–20, to use. Partner A closes their eyes while Partner B shakes, spills, and covers up the yellow counters with a cup. Partner A determines how many counters are under the cup and explains how they know. Both partners record the round. Switch roles and repeat.

#### **Standards Alignments**

Addressing 1.OA.6



### **Materials to Gather**

Cups

Two-color counters

### **Materials to Copy**

Shake and Spill Stage 4 and 5 Recording Sheet (grades 1 and 2) (groups of one)

### **Additional Information**

Each group of two needs a cup and 20 two-color counters.

## **SORT AND DISPLAY**

Students sort a collection and create a representation of their data.

### **Stage 1: Any Way**

#### **Stage Narrative**

Students sort 10–20 objects into two or three categories and then show how they sorted. Provide students with a group of items that will be interesting for them to work with such as:

- Pattern blocks
- Connecting cubes
- Counters
- Combination of the blocks, cubes, and counters
- Sets of books

Students then show their representation to a partner and ask questions that can be answered about their collection of objects.

#### **Standards Alignments**

Addressing 1.MD.4

#### **Materials to Gather**

Collections of objects

#### **Materials to Copy**

Sort and Display Stage 1 Recording Sheet (groups of one)

#### **Additional Information**

Create collections of 10–20 objects with up to three attributes by which to sort.

## **TARGET NUMBERS**

Students add or subtract to get as close as possible to a target number.

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### **Stage 1: Add Ones**

#### **Stage Narrative**

Before playing, students remove the cards that show 0 and 10 and set them aside.

Students add a one-digit number to a two-digit number with composing a ten to get as close to 95 as possible. Students start their first equation with 55 and turn over a number card and add it to their starting number for the round. The sum becomes the first addend in the next round. The player who gets closest to 95 in 6 rounds, without going over, is the winner.

#### **Standards Alignments**

Addressing 1.NBT.4

#### **Materials to Gather**

Connecting cubes in towers of 10 and singles

Number cards 0–10

**Materials to Copy**

Target Numbers Stage 1 Recording Sheet (groups of one)

**Stage 2: Add Tens or Ones**

**Stage Narrative**

Before playing, students remove the cards that show 0 and 10 and set them aside.

Students add tens or ones to get as close to 95 as possible. Students start their first equation with 25. Students take turns flipping a number card and choosing whether to add that number of tens or ones and write an equation. The sum becomes the first addend in the next round. The player who gets closest to 95 in 6 rounds, without going over, is the winner.

**Standards Alignments**

Addressing 1.NBT.4

**Materials to Gather**

Connecting cubes in towers of 10 and singles

Number cards 0–10

**Materials to Copy**

Target Numbers Stage 2 Recording Sheet (groups of one)

**Stage 3: Add Two-digit Numbers**

**Stage Narrative**

Students add two-digit numbers to get as close to 95 as possible. Students start by rolling two number cubes to get a starting number. Then, they take turns rolling the three cubes to get a number to add. They choose one of the numbers on the cubes to represent the tens and a different number to represent the ones. Students add their tens and ones to the starting number. The sum becomes the first addend in the next round. The player who gets closest to 95 in 6 rounds, without going over, is the winner.

**Standards Alignments**

Addressing 1.NBT.4

**Materials to Gather**

Connecting cubes in towers of 10 and singles

Number cubes

**Materials to Copy**

Target Numbers Stage 3 Recording Sheet (groups of one)

**WHAT'S BEHIND MY BACK**

Students work with a given number of connecting cubes. They break apart the tower into two parts.

**Stage 2: 10 cubes**

**Stage Narrative**

Students work with 10 cubes. One partner snaps the tower and puts one part behind their back and shows the other part to their partner. Their partner figures out how many cubes are behind their back. This stage has two different recording sheets, one for kindergarten and another for grade 1. Be sure to use the appropriate recording sheet with students.

On the kindergarten recording sheet, students draw or color the connecting cube tower to show the two parts that the tower broke into and fill in an equation to show the total number of connecting cubes in the tower and the two parts that the tower was broken into.

On the grade 1 recording sheet, students record an addition equation with a blank to represent the missing cubes.

**Standards Alignments**

Addressing 1.OA.4, 1.OA.6

**Materials to Gather**

10-frames, Connecting cubes

**Materials to Copy**

What's Behind My Back Stage 2 Recording Sheet Grade 1 (groups of one)

What's Behind My Back Stage 2 Recording Sheet Kindergarten (groups of one)

**Additional Information**

Each group of two needs 10 connecting cubes.

## WRITE NUMBERS

Students take turns writing the next 1, 2, or 3 numbers in the sequence. The player who writes the last number on the number path wins.

**Stage 1: Numbers to 99 by 1**

**Stage Narrative**

Students count by 1 and choose whether to count forward or backward. Gameboards go from 39–60, 69–90, and 78–99.

**Standards Alignments**

Addressing first grade counting standards (pre-CCRS)

**Materials to Gather**

Dry erase markers, sheet protectors

**Materials to Copy**

Write the Number Stage 1 Gameboard (groups of two)

**Stage 2: Numbers to 99 by 10**

**Stage Narrative**

Students count by 10 and choose whether to count forward or backward. Gameboards go from 3–93, 5–95, and 8–98.

**Standards Alignments**

Addressing first grade counting standards (pre-CCRS)

**Materials to Gather**

Dry erase markers, sheet protectors

**Materials to Copy**

Write the Number Stage 2 Gameboard (groups of two)

**Stage 3: Numbers to 120 by 1**

**Stage Narrative**

Students count by 1 and choose whether to count forward or backward. Gameboards go from 89–110, 95–116, and 99–120.

**Standards Alignments**

Addressing first grade counting standards (pre-CCRS)

**Materials to Gather**

Dry erase markers, sheet protectors

**Materials to Copy**

Write the Number Stage 3 Gameboard (groups of two)

## GEOMETRY AND MEASUREMENT

### ESTIMATE AND MEASURE

Students estimate the length of objects and then measure to find the actual length.

**Stage 1:** Choose Your Unit

**Stage Narrative**

Students choose an object and a familiar unit to measure it with. They estimate the length of the object and then measure to see the actual length to the nearest whole unit.

**Variation:**

Students may use base-ten cubes and add the length of two objects to practice adding within 100.

**Standards Alignments**

Addressing 1.MD.2, 1.NBT.4

**Materials to Gather**

Base-ten blocks, connecting cubes, paper clips (2-inch)

**Materials to Copy**

Estimate and Measure Stage 1 Recording Sheet (groups of one)

**Additional Information**

Gather or identify objects of various lengths that are less than 20 units (pencils, markers, books, glue, scissors, shoe, tape dispenser, side of desk).

### GEOBLOCKS

Students work with geometric blocks.

**Stage 1:** Explore

**Stage Narrative**

Students have free exploration time with geometric blocks.

**Standards Alignments**

Addressing kindergarten geometry standards (pre-CCRS)

**Materials to Gather**

Geometric blocks

**Stage 2:** Build to Match

**Stage Narrative**

Students use solid shapes to build objects pictured on cards.

**Standards Alignments**

Addressing kindergarten geometry standards (pre-CCRS)

**Materials to Gather**

Geometric blocks

Solid shapes

**Materials to Copy**

Geoblocks Stage 2 (groups of eight)

**Stage 3:** Describe and Find

**Stage Narrative**

Students describe solid shapes so their partner can identify the shape out of a set of 4–6 solid shapes.

### **Standards Alignments**

Addressing K.G.4

### **Materials to Gather**

Geometric blocks  
Solid shapes

### **Stage 4: Feel and Guess**

#### **Stage Narrative**

Students feel the shape without looking at it and guess the shape.

### **Standards Alignments**

Addressing K.G.4

### **Materials to Gather**

Bags  
Geometric blocks  
Solid shapes

## **HOW ARE THEY THE SAME?**

Students develop their understanding of shapes by finding shared attributes. This game is for groups of four students.

### **Stage 1: Grade 1 Shapes**

#### **Stage Narrative**

Students lay six shape cards face up. One student picks two cards that have an attribute in common. All students draw a shape that has a shared attribute with the two shapes. Students get a point if they draw a shape that no other student drew. It is possible that students will draw a shape with a different shared attribute than what the original student chose. This can be an interesting discussion for students to have.

#### **Variation**

Students can choose a different shape card that matches, rather than draw a shape.

### **Standards Alignments**

Addressing K.G.4

### **Materials to Copy**

Centimeter Dot Paper - Standard (groups of one)  
Flat Shape Cards Grade 1 (groups of two)

## **MATCH MINE**

(There is no Google Drive file for this center because there are no recording sheets.)

Students put shapes together to make larger shapes. Students then describe their shape to a partner who tries to make a matching shape.

### **Stage 1: Pattern Blocks**

#### **Stage Narrative**

Students make larger shapes from pattern blocks.

#### **Variation**

Students may use folders to hide their shape.

### **Standards Alignments**

Level A Centers

Last revised: June 6, 2024

Addressing kindergarten geometry standards (pre-CCRS)

**Materials to Gather**

Folders

Pattern blocks

**Stage 2: Solid Shapes**

**Stage Narrative**

Students make larger shapes from solid shapes.

**Variation**

Students may use folders to hide their shape.

**Standards Alignments**

Addressing 1.G.2

**Materials to Gather**

Folders

Geometric blocks

Solid shapes

**PICTURE BOOKS**

Students work with picture books or magazines.

**Stage 1: Explore**

**Stage Narrative**

Students look at picture books and identify groups of objects. They may recognize small quantities or count to figure out how many.

**Standards Alignments**

Addressing kindergarten counting standards (pre-CCRS)

**Materials to Gather**

Picture books or magazines

**Additional Information**

Each group of two needs at least one picture book that shows groups with different numbers of objects throughout the book.

**Stage 2: Create**

**Stage Narrative**

Students create their own picture book representing different numbers.

**Standards Alignments**

Addressing kindergarten counting standards (pre-CCRS)

**Materials to Gather**

Colored pencils or crayons

**Materials to Copy**

Picture Books Stage 2 Recording Sheet (groups of one)

**Stage 3: Find Shapes**

**Stage Narrative**

Students look through picture books and notice and describe shapes they see in the pictures.

**Variation**

Students may record the shapes they see with drawings or words.

**Standards Alignments**

Addressing first grade geometry standards (pre-CCRS)

**Materials to Gather**

Picture books, magazines, or other appropriate resources

**Materials to Copy**

Picture Books Stage 3 Recording Sheet (groups of one)

**Additional Information**

Each group of two to four needs at least one picture book or magazine that shows a variety of shapes throughout the book.

**WHICH ONE?**

Students ask their partner yes or no questions to figure out what shape they chose.

**Stage 1: Grade K Shapes**

**Stage Narrative**

One partner chooses a shape on the gameboard. The other partner asks questions to figure out what shape they chose. Students may use counters to cover up shapes that have been eliminated. Students work with simple shapes such as circles, rectangles, and triangles.

**Standards Alignments**

Addressing K.G.4

**Materials to Gather**

Counters

**Materials to Copy**

Which One Stage 1 Gameboard (groups of two)

**Stage 2: Grade 1 Shapes**

**Stage Narrative**

One partner chooses a shape on the gameboard. The other partner asks questions to figure out what shape they chose. Students may use counters to cover up shapes that have been eliminated. Students work with triangles and quadrilaterals.

**Standards Alignments**

Building toward 2.G.1

**Materials to Gather**

Counters

**Materials to Copy**

Which One Stage 2 Gameboard (groups of two)