SAMPLE CENTERS

Grade 2 Unit 1 Centers

Center Overview

<table>
<thead>
<tr>
<th>Center A</th>
<th>Center B</th>
<th>Center C</th>
<th>Center D</th>
<th>Center E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition Spinner</td>
<td>How Many 10s? How Many 1s?</td>
<td>Hidden Dots</td>
<td>Matching Numbers</td>
<td>Make 50 or 100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Add 2 numbers between 1–5.</th>
<th>Build 2-digit numbers using place value templates and base ten blocks.</th>
<th>Up to 10 dots and write any equation to match.</th>
<th>Match number representations within 50.</th>
<th>Add to make 50.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2</td>
<td>Add 2 numbers between 1–10.</td>
<td>Build 2-digit numbers in different ways using base ten blocks.</td>
<td>Up to 10 dots and write an addition and subtraction equation to match.</td>
<td>Match number representations within 100.</td>
<td>Add to make 100.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Add 2 numbers between 5–10.</td>
<td>Record different ways to compose 2-digit numbers using 10s and 1s.</td>
<td>Up to 20 dots and write an addition and subtraction equation to match.</td>
<td>Match number representations within 100 and create another representation.</td>
<td></td>
</tr>
</tbody>
</table>
### Center A

#### Unit 1: Adding and Subtracting with Data  
#### Center A: Addition Spinner

**Teacher-facing Learning Goals**
Develop fluency with addition sums within 20.

**Building to CCSS:** 2.OA.B.2

**Stage Descriptions**
- **Stage 1:** Add 2 numbers between 1–5.
- **Stage 2:** Add 2 numbers between 1–10.
- **Stage 3:** Add 2 numbers between 5–10.

**Look Fors**
- Students can find the sum of 2 numbers mentally.

**Required Materials:**
- spinners and recording sheets for each student
- paper clips

#### Student-facing Directions

**Stages 1–4: Addition Spinner**

**Task Statement**
- Spin to get your first number.
- Spin again to get your second number.
- Add the 2 numbers together.
- Write an equation to represent the sum.
- Check your answer with your partner.

#### Teacher Interactions

**Groups of 2**

**Questions to ask during center**
- How did you find the sum of these numbers?
- Is this a fact you just know?
- Do you need cubes to count on? Is there another way you could find the sum?
### Center B

<table>
<thead>
<tr>
<th>Unit 1: Adding and Subtracting with Data</th>
<th>Center B: How Many 10s? How Many 1s?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher-facing Learning Goals</td>
<td></td>
</tr>
<tr>
<td>• Represent 2-digit numbers with different amounts of 10s and 1s based on diagrams.</td>
<td></td>
</tr>
<tr>
<td>• Represent 2-digit numbers with different amounts of 10s and 1s using place value blocks.</td>
<td></td>
</tr>
<tr>
<td>Building On CCSS: 1.NBT.B.2</td>
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</tr>
</tbody>
</table>

### Stage Descriptions

- **Stage 1:** Build 2-digit numbers in different ways using place value templates and base ten blocks.
  - Students can build numbers based on place value (35 as three 10s and five 1s).
  - Students use a template to create a different way of representing the number.
  - Students understand that numbers built with different amounts of 10s and 1s can represent the same number.

- **Stage 2:** Build 2-digit numbers in different ways using base ten blocks.
  - Students can build numbers based on place value (35 as three 10s and five 1s).
  - Students understand one 10 has the same value as ten 1s.
  - Students can make 2-digit numbers in different ways with place value blocks.
  - Students understand that numbers built with different amounts of 10s and 1s can represent the same number.

- **Stage 3:** Record different ways to compose 2-digit numbers using 10s and 1s.
  - Students can build numbers based on place value (35 as three 10s and five 1s).
  - Students understand one 10 has the same value as ten 1s.
  - Students can make 2-digit numbers in different ways without using place value blocks.
  - Students use place value structure to find different ways of representing the same number.

### Required Materials:

- recording sheets, place value diagram cards, and digit cards
- place value blocks
<table>
<thead>
<tr>
<th>Student-facing Directions</th>
<th>Teacher Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1: How Many 10s? How Many 1s?</strong></td>
<td>Groups of 2</td>
</tr>
<tr>
<td><strong>Task Statement</strong></td>
<td><strong>Center Directions</strong></td>
</tr>
<tr>
<td>- Choose a place value diagram card.</td>
<td>- Partner A finds one way to cover the drawing with place value blocks.</td>
</tr>
<tr>
<td>- Find 2 ways to cover the drawing with place value blocks to compose the number.</td>
<td>- If partners agree, both partners record 10s and 1s on the recording sheet.</td>
</tr>
<tr>
<td>- Record the ways you composed the number.</td>
<td>- Partner B finds a different way to cover the drawing with place value blocks.</td>
</tr>
<tr>
<td></td>
<td>- If partners agree, both partners record 10s and 1s on the recording sheet.</td>
</tr>
</tbody>
</table>

**Questions to ask during center** |
- How do you know these represent the same number? |
- What patterns do you see in the different ways to represent the same number? 

<table>
<thead>
<tr>
<th><strong>Stage 2: How Many 10s? How Many 1s?</strong></th>
<th>Groups of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Statement</strong></td>
<td><strong>Center Directions</strong></td>
</tr>
<tr>
<td>- Choose 2 cards and make a 2-digit number.</td>
<td>- Partner A chooses 2 digit cards and uses them to make a 2-digit number.</td>
</tr>
<tr>
<td>- Build your number in 2 ways with place value blocks.</td>
<td>- Partner A finds one way to build the number with place value blocks.</td>
</tr>
<tr>
<td>- Record the ways you composed the number.</td>
<td>- If partners agree, both partners record 10s and 1s on the recording sheet.</td>
</tr>
</tbody>
</table>

**Questions to ask during center** |
- Switch roles and repeat.
### Stage 3: How many 10s? How many 1s?

<table>
<thead>
<tr>
<th>Task Statement</th>
<th>Groups of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose 2 cards and make a 2-digit number.</td>
<td>Center Directions</td>
</tr>
<tr>
<td>Record 2 ways to compose the number with 10s and 1s.</td>
<td>Partner A chooses two digit cards and uses them to make a 2-digit number.</td>
</tr>
<tr>
<td></td>
<td>Partner A finds one way to build the number.</td>
</tr>
<tr>
<td></td>
<td>If partners agree, both partners record 10s and 1s on the recording sheet.</td>
</tr>
<tr>
<td></td>
<td>Partner B finds a different way to build the number.</td>
</tr>
<tr>
<td></td>
<td>If partners agree, both partners record 10s and 1s on the recording sheet.</td>
</tr>
<tr>
<td></td>
<td>Switch roles and repeat.</td>
</tr>
</tbody>
</table>

#### Questions to ask during center
- How do you know these represent the same number?
- How did you figure out a different way to represent the number?
Center C

<table>
<thead>
<tr>
<th>Unit 1: Adding and Subtracting with Data</th>
<th>Center C: Hidden Dots</th>
</tr>
</thead>
</table>

**Teacher-facing Learning Goals**  
Fluently add and subtract within 20.

**Addressing CCSS:** 2.OA.B.2

**Stage Descriptions**
- **Stage 1:** Determine the number of hidden dots on cards with totals of up to 10 dots and write an equation to match.
- **Stage 2:** Determine the number of hidden dots on cards with totals of up to 10 dots and write an addition and subtraction equation to match.
- **Stage 3:** Determine the number of hidden dots on cards with totals of up to 20 dots and write an addition and subtraction equation to match.

**Look Fors**
- Students can determine the missing number of dots mentally.
- Students can write addition and subtraction equations to match the dot cards.

**Required Materials:**
- hidden dot cards
- recording sheets

<table>
<thead>
<tr>
<th>Student-facing Directions</th>
<th>Teacher Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1-3: Hidden Dots</strong></td>
<td>Groups of 2</td>
</tr>
</tbody>
</table>

**Task Statement**
- **Stage 1:**
  - Flip over a card.
  - Figure out how many dots are hidden.
  - Write an equation that represents the parts and the total number of dots.
- **Stages 2 and 3:**
  - Flip over a card.
  - Figure out how many dots are hidden.

**Center Directions**
- Partner A chooses a hidden dot card.
- Work together to figure out how many dots are hidden.
- When both partners agree, record (an) equation(s) on the recording sheet.
- Switch roles and repeat.

**Questions to ask during center**
- How did you figure out how many dots were hidden?

Find IM K-5 Math beta requirements and more here: [www.illustrativemathematics.org/im-k5beta](http://www.illustrativemathematics.org/im-k5beta)
- Write an addition and subtraction equation that represents the parts and the total number of dots.

- How do you know this equation represents the dots on this card? What do these addends mean?

- Is there another equation you could write?

## Center D

### Unit 1: Adding and Subtracting with Data

<table>
<thead>
<tr>
<th>Teacher-facing Learning Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match representations of the same number composed with different amounts of 10s and 1s.</td>
</tr>
<tr>
<td>Match representations of the same number composed with different amounts of 10s and 1s.</td>
</tr>
</tbody>
</table>

### Center D: Matching Numbers

| Building Toward CCSS: 2.NBT.A |

### Stage Descriptions

- **Stage 1**: Match number representations within 50.
- **Stage 2**: Match number representations within 100.
- **Stage 3**: Match number representations within 100 and create another way to represent the number.

### Look Fors

- Students match place value diagrams to numbers.
- Students determine the value of a number composed of more than 10 ones.

### Required Materials:

- matching cards, recording sheets
- place value blocks

### Student-facing Directions

#### Stage 1 and 2: Matching Numbers

- Spread out all your cards.
- Find 3 cards that show the same number.
- Record each way.
- Continue matching until all cards are used.

### Teacher Interactions

#### Groups of 2

### Center Directions

- Player A picks a card.
- Player B picks a card that shows another representation of that number and explains why.

- Player A picks a card that shows another representation of that number and explains why.

Find IM K-5 Math beta requirements and more here: [www.illustrativemathematics.org/im-k5beta](http://www.illustrativemathematics.org/im-k5beta)
### Stage 3: Matching and Building Numbers

<table>
<thead>
<tr>
<th>Task Statement</th>
<th>Center Directions</th>
</tr>
</thead>
</table>
| - Spread out all your cards
  - Find 3 cards that show the same number.
  - Create another way to represent the number.
  - Record each way of making the number.
  - Continue matching until all cards are used. | - Player A picks a card.
  - Player B picks a card that shows another representation of that number and explains why.
  - Player A picks a card that shows another representation of that number and explains why.
  - Player B create another way to represent the number.
  - If partners agree, both partners record all 4 representations of the number on their recording sheet.
  - Switch roles and repeat. |

### Groups of 2

### Questions to ask during center
- How do you know these represent the same number?
- What do you notice about how the number of 10s and 1s change when composing a number in different ways?
## Center E

<table>
<thead>
<tr>
<th>Unit 1: Adding and Subtracting with Data</th>
<th>Center E: Make 50 or 100.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher-facing Learning Goals</strong></td>
<td></td>
</tr>
<tr>
<td>• Develop fluency adding within 100 using strategies based on place value.</td>
<td></td>
</tr>
<tr>
<td><strong>Building On:</strong> 1.NBT.B.4</td>
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</tr>
<tr>
<td><strong>Addressing CCSS:</strong> 2.NBT.B.5</td>
<td></td>
</tr>
</tbody>
</table>

### Stage Descriptions
- **Stage 1:** Make 50.
- **Stage 2:** Make 100.

### Look fors
- Students add on by ones.
- Students recognize when a ten can be made.
- Students build the number to be added first, then add the 10s to the 10s and 1s to the 1s.
- Students add mentally.

### Required Materials:
- spinners and recording sheets
- place value blocks
- paper clips

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<thead>
<tr>
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<th>Teacher Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1: Make 50, Stage 2: Make 100</strong></td>
<td><strong>Groups of 2</strong></td>
</tr>
</tbody>
</table>

### Task Statement
- Spin to get your starting number.
- Spin again and record your numbers in the equation.
- Find the sum and check with your partner.
- Move your sum to the beginning of the next equation.
- Spin and find the sum until you get past 50.

### Center Directions
- Use a pencil and paper clip to create a spinner.
- Partner A spins to get your starting number.
- Record it on the sheet.
- Partner B spins to get the next number and records it on the sheet.
- Both partners find the sum and record it.
- If both partners agree on the sum, write it as the first number in the next equation.

Find IM K-5 Math beta requirements and more here: [www.illustrativemathematics.org/im-k5beta](http://www.illustrativemathematics.org/im-k5beta)
- Partner A spins to get the next number.
- Both partners write it on the recording sheet.
- If partners agree on the sum, write it at the beginning of the next equation.
- Continue until your sum gets to 50 or 100.

**Questions to ask during center**
- How did you add the numbers?
- When did you make a new ten?