



Math Center: Subtracting with The Little Red Fort

Children build forts using ten blocks.
Children subtract within ten and record their equations.

Big Ideas	<p>Children will:</p> <ul style="list-style-type: none"> communicate mathematically through multiple forms of expression. persevere in solving questions with a growth mindset. solve mathematical problems using a variety of strategies. make sense of the world around them through mathematics. connect math to other learning and real-world examples. <p>A strong, interdependent math community has qualities, such as:</p> <ul style="list-style-type: none"> shared responsibility, collaboration and support for each other.
Guiding Questions	<p>What does it mean to be a member of a math community? How do you use math tools? How do you most effectively communicate your mathematical thoughts and ideas? Why is collaboration and listening to the ideas of others important?</p>
Vocabulary	<p>subtract: taking away a number from a bigger number to find how many are left minus: the symbol used to show we are subtracting or taking away difference: the number left after you take some away</p>
Materials and Preparation	<ul style="list-style-type: none"> <i>The Little Red Fort</i>, Brenda Maier blocks to make forts (e.g., Legos, wooden blocks, wooden cubes, pattern blocks, foam blocks, Red Solo cups). Each child will need a 10 blocks in total. When possible, use red blocks, as inspired by the book. number dice to use for subtraction work or Fort Challenge cards plain paper or white boards for children to record their subtraction equations

<p>Intro to Centers</p>	<p><i>Today we have a new Math Center. We will make forts just like Ruby in the book The Little Red Fort. We will practice subtraction!</i></p> <p>Show the book.</p> <p><i>Let's get our brains ready for the Math Center by doing some subtraction problems! If I have 10 blocks, and gave Ben 2 blocks, how many blocks would I have left?</i></p> <p>Show ten fingers and remove 2.</p> <p>Model a few more subtraction problems from 10. Encourage children to use their 10 fingers and practice solving the equations together.</p> <p><i>At the Math Center, you will have ten blocks to make a fort. Using the subtraction cards [or dice] we will take away from our total of 10. Let's try it together.</i></p> <p>Invite one child to create a fort using 10 blocks. Remind children that for this activity, they will be subtracting from 10 in total. Make it very important that children begin with 10 blocks. Model how to count them out before building the fort.</p> <p>Take a card from the deck and read the card. Model taking away the total number of blocks from the fort. Have a child record the equation on the paper/whiteboard. Think out loud when working on the subtraction equation.</p> <p><i>We will practice subtraction at the Math Center this week! Don't forget that subtraction means to take away. You will need to rebuild your fort each time. I wonder if your fort will be built the same or different? How many different ways will you build a fort?</i></p> <p><i>Recording your subtraction problems on a white board or paper will be a good way for you to document your problem solving. You can work by yourself or with a partner.</i></p> <p><i>Don't forget that cleaning up after you are done is an important part of Centers.</i></p>
<p>During Centers</p>	<p>Children will build forts with 10 blocks. Children will use the subtraction cards (or dice) to subtract from their total.</p> <p>Children may work on their own or with a partner. Notice how children are recording their subtraction problems and model writing equations if needed.</p>

	<p>Take observational notes or photographs of student work. Bring these examples to Thinking and Feedback to talk about math concepts and problem solving strategies.</p>
<p>Facilitation</p>	<ul style="list-style-type: none"> ● What materials will you use to build your fort? ● How did you build your fort? ● How do you know you only have ten blocks? What did you do to make sure you are subtracting from ten? ● When you use a subtraction card how do you know how many blocks you have left? What strategy did you use to solve the problem?
<p>Standards</p>	<p>QR.C.1 Know the number names and the count sequence.</p> <ul style="list-style-type: none"> ● K.CC.A.1: I can count to 100 by ones and by tens ● K.CC.A.3: I can write numbers from 0 to 20. I can write the numbers 0-20 to represent a number of objects. <p>QR.C.2 Count to tell the number of objects.</p> <ul style="list-style-type: none"> ● K.CC.B.4a: When counting objects, I say the number names in the right order, making sure I say only one number for each object that I count. ● K.CC.B.5: I can count to answer “how many?” questions for as many as 20 things arranged in different ways. Given a number from 1-20, I can count out that many objects. <p>QR.C.5 Understand place value.</p> <ul style="list-style-type: none"> ● K.NBT.A.1: I can compose and decompose numbers from 11 to 19 into ten ones and some more ones. I can show these with a drawing or equation. I understand that teen numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. <p>AR.C.1 Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</p> <ul style="list-style-type: none"> ● K.OA.A.1: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. ● K.OA.A.4: For any number from 1 to 9, I can find which two numbers make 10 when added together. I use objects or drawings and can write the equation. <p>Standards for Mathematical Practice: 1-8</p>