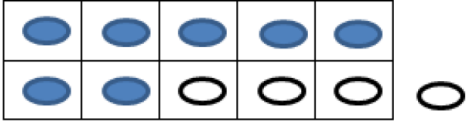
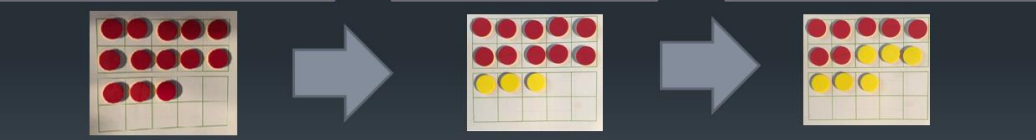
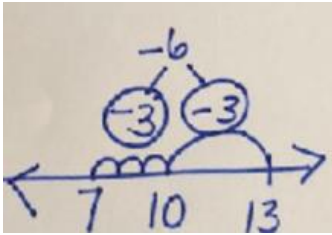


## Building Understanding and Fluency within 20

<p><b>Overarching Student Learning Goals</b></p> <p>In this unit, your child will work to build an understanding of the following:</p>	<p><b>Resources/Tasks to support your child at home.</b></p>
<p><b>Using Ten to Add</b></p> <p>Given the problem <math>7 + 4</math> the student thinks... I know <math>7 + 3</math> makes 10 so <math>7 + 4 = 11</math>.</p>  <p>(Students might use a ten frame to model this strategy.)</p>	<ul style="list-style-type: none"> <li>Task: John had 7 red jelly beans and 5 blue jelly beans. How many jelly beans does John have? Explain how you can use ten to add.</li> <li>Digital games (levels 1 and 2 ) to practice <b>addition</b> fluency <a href="http://goo.gl/M88wa">http://goo.gl/M88wa</a></li> </ul>
<p><b>Using Ten to Subtract</b></p> <p><math>13 - 6 = ?</math></p> <div data-bbox="121 803 1150 1047"> <p>Students begin by modeling 13. The double ten frame automatically creates a model showing 13 broken apart into 10 and 3</p> <p>Students flip over 3 of the counters to yellow to represent subtracting to get to ten.</p> <p>Students then flip over another three counters to yellow, for a total of 6. This leaves a difference of 7 red counters.</p>  </div> <p>Number lines are a more abstract way for students to represent their thinking.</p> 	<ul style="list-style-type: none"> <li>Task: Kelly had a bag of 12 jelly beans. 4 are green and the rest are yellow. How many jelly beans are yellow? Explain how you can use ten to subtract.</li> <li>Digital games (levels 1 and 2 ) to practice <b>subtraction</b> fluency <a href="http://goo.gl/CIXvF">http://goo.gl/CIXvF</a></li> </ul>

## Grade 2

### Using Doubles to Add and Subtract.

Given  $2 + 3 = \square$

If I know  $2 + 2 = 4$ , then I know  $2 + 3$  is one more so it equals 5.

$$2 + 2 = \square \text{ so } 2 + 3 = \square$$

Given  $17 - 8 = \square$

Student uses addition doubles fact to solve the subtraction problem.

I know  $8 + 8 = 16$  so  $8 + \boxed{9} = 17$ .

$17 - 8 = \boxed{9}$

$$8 + 8 = \square \text{ so } 8 + 9 = \square$$

- Students need to have their doubles mastered before they can use doubles to add and subtract. Look for real-world examples of doubles with your child.

Examples:

- fingers on your hands  $5 + 5$
- legs on a ladybug  $3 + 3$
- rows of eggs in a carton  $6 + 6$
- days in 2 weeks  $7 + 7$

- Learn Zillion Video: Use Doubles to Add and Subtract Within 20 <https://bit.ly/2KBsGi0>

### Building Fluency

Games or flash cards allow student to apply strategies with the goal of becoming fluent with facts to 20 by the end of 2<sup>nd</sup> grade. Continued practice throughout the year will be needed.



Player 1  $7 + 7 = 14$

Player 2  $9 + 6 = 15$



*Fluency is the ability to recall facts without relying on counting strategies.*

- Greg Tang Math: Math Limbo – game to practice facts <http://gregtangmath.com/mathlimbo>
- Using dice, roll 2 or 3 single digit numbers and add them together.
- Using a deck of cards – Addition War
  - make the ace 1 and remove face cards
  - 2 players
  - each player flips 2 cards and adds to find the sum
  - the player with the greater sum keeps all 4 cards