

**SAMPLE**

<b>Lesson Number: 9      Objective: Relate manipulative representations to the addition algorithm (in vertical form)</b>	
<b>Materials</b>	Place value disks—for demonstration and for students Personal white boards  (Linking cubes or Rekenrek available at the side for students still working to compare value)
<b>Application Problem</b>	Swapped; using Lesson 11:  Mr. Arnold has a box of pencils. He passes out 27 pencils and has 45 pencils left. How many pencils did Mr. Arnold have in the beginning?  <b>Mr. Arnold began with 72 pencils.</b>  <ul style="list-style-type: none"> <li>• Start unknown</li> <li>• Watch for composing strategies</li> <li>• Encourage students to explain how they created the additional ten when sharing</li> </ul>
<b>Fluency</b>	Make the Next Ten to Add (added to Smartboard file) (focus on single digit sums with new groups) <ul style="list-style-type: none"> <li>• Use personal white boards</li> </ul> Add Common (added to Smartboard file) <ul style="list-style-type: none"> <li>• If TIME</li> <li>• Demo last problem with place value disks; have students explain sum using unit language and demonstrating with disks (and other materials as needed by students)</li> <li>• </li> </ul> More Tens and Ones (added to Smartboard file just in case extra time)  <b>MOVE ON BY 1:26 PM</b>
<b>Concept Development</b>  Key ■ Must Do (M) ■ Could Do (C) ■ Extension problems (E)	Problem 1: <b>427 + 385</b> Problem 2: <b>672 + 249</b> Additional problems: 671 + 149; 348 + 464; 563 + 247  Use disks under doc cam; chip model & vertical form on board <ul style="list-style-type: none"> <li>• Do I have enough ones (tens) to bundle?</li> <li>• Can I compose a new unit?</li> <li>• Where do I record the new ten (hundred)?</li> <li>• How do we show this change using vertical form?</li> </ul>

<b>Student Debrief</b>	<p>Use student work from Problem 2 to elicit conversation and explanations from students around how they solved the problems. Challenge students to use place value language (ones, tens, hundreds, compose/bundle, made a new unit, new ten, new hundred)</p> <p>If needed use:</p> <ul style="list-style-type: none"> <li>• Explain to your partner how you used manipulatives to set up the problem in 1(a). How did you change your number disks to show the problem in the second column? <b>What actions did you take to solve?</b></li> <li>• Explain to your partner how you solved Problem 1(c). Did you need to compose a ten or hundred for the second problem in the set? Why not? <b>Why was the total the same for both problems?</b></li> </ul>
<b>Exit Ticket</b>	<p>Using place value disks and vertical form:</p> <p>1. <math>375 + 197</math></p> <p>2. <math>184 + 338</math></p>
<b>Problem Set</b>  Key ■ Must Do (M) ■ Could Do (C) ■ Extension problems (E)	<p>Must do: 1a – c; 2a &amp; 2c</p> <p>Could do: All others</p> <p>Extension: Find multiple ways to solve a given problem from Problem 2; find similarities and differences in solution strategies</p>
<b>Homework</b>  Key ■ Must Do (M) ■ Could Do (C) ■ Extension problems (E)	<p>Choose 3 from each side based during Student Debrief</p> <p>OR Solve 2d in at least 3 ways.</p>

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<b>Application Problem</b>	
<b>Fluency</b>	
<b>Concept Development</b>  Key ▪ Must Do (M) ▪ Could Do (C) ▪ Extension problems (E)	

<b>Student Debrief</b>	
<b>Exit Ticket</b>	
<b>Problem Set</b>  Key ▪ Must Do (M) ▪ Could Do (C) ▪ Extension problems (E)	
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