

Frames and Arrows Having Two Rules

Lesson Definition	
Lesson Title:	Frames and Arrows Having Two Rules
Teacher:	Ms. Teacher
Course Title:	Math
Unit Title:	Addition/ Subtraction
Main Standard Code:	2.OA.1
Main Standard:	Represent and solve problems involving addition and subtraction. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
Grade Level:	2
Subject:	Mathematics
Learning Objective:	Students will be able to make up and solve Frames-and-Arrows problems about coins and use coins to solve Frames-and-Arrows problems having two rules.
Condition:	Navigating between two rules, they'll fill in each frame.
Criteria:	They'll fill each frame with 80% accuracy.
Lesson Detail	
<i>Instructional Modes (all that apply)</i>	
Whole Class	
Behavior Check	
Review	
Think (Stimulate Interest):	<p>For 10 minutes, students will use the iPad app named "Counting Money" to practice counting money.</p> <p>Here is a Frames - and - Arrows problem that uses nickels:</p> <p>Add \$0.05 _____, \$0.10, \$0.15, \$0.20, _____, _____, \$0.35</p> <p>Take a blank Frames - and - Arrows diagram from Math Masters, page 75. Make up a problem that uses nickels, dimes, or quarters. Hand in your problem.</p>
Know (Teach):	<p>Students will review counting by 5s beginning with 0, counting by nickels beginning at 0, and filling in missing frames based on one rule.</p> <p>Teacher: Look at Math Masters Page 76. How is that different from Math Masters page 75.</p> <p>Students should be able to recognize that page 76 has two rules, and the arrows are different for each rule.</p> <p>Together we'll fill in a frame and arrows diagram. We'll begin with the rule for the solid arrow and then the rule for the dashed arrow.</p> <p>solid arrow (+\$0.05) dashed arrow (+\$0.10) \$0.10, _____, _____, _____, _____, _____, _____</p>

Show: (Check For Understanding)	Students will complete the last two frames and arrows above independently.
Teacher-Directed Group(s):	<p>Students who didn't successfully complete the last two problems will get addition practice filling frames and arrows.</p> <p>Students will be directed to use different colored highlighters to color the arrows on the rule box. Then use the different colored highlighters to color the corresponding arrow in the diagram. Next, write the rule above its arrow.</p> <p>Solid arrow rule: +\$0.10 Dashed arrow rule: -\$0.05 \$0.10, \$0.20, \$0.15, ____, ____, ____, ____.</p> <p>Students will use nickels, dimes, and a number line to help with counting up and back.</p>
Student-Directed Group(s):	Students will practice filling Two-Rule Frames and Arrows worksheet using Math Masters p.77, Problems 1-5.
Independent Practice:	Students will complete Math Journal p.69 -70, problems 1-6.
Homework:	Math HomeLink 3.6, Math Masters p.78 will be assigned for homework.
Resource / Material:	<p>Math Masters pp 75-79 Student Math Journal 1 pp 69-70 Home Link 3-6 Pink, yellow, purple, green, and blue highlighters per child: 5 dimes, and 5 nickels</p>
Technology Integration:(What and How)	Students will use the iPad app "Count Money" to practice counting money.
Accommodations:	There are ten ELL students and three students with IEPs that will participate in the lesson.
Modifications	
Accelerated:	Students would solve frames and arrows problems with a missing rule.
Pre-Requisite:	Use a number line to count up and back.
Teacher Reflections:	