**Fairfield Public Schools Balanced Math Instructional Model**

Grade K Unit 1 Lesson 16

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| Materials: Fluency: Teacher math rack Lesson: two dice per pair of students, Game board for tracing numerals 1-12 (one per student), Game boards 1-6 (if needed for differentiation). | | |
| Fluency Work  (1-5 min.) | Using the teacher math rack, slide bead quantities 1-9. Ask students how many beads they saw. Challenge students to answer how many more beads are needed to make ten. Have student repeat the reasoning of their peers. | |
| Teaching Point | Writing numbers 1-12 |
| Mini-Lesson | Tell the students they are going to play a game today. Share with them a number cube (dice) and remind them of observations about what they noticed about the dots on the dice, how they are organized to make them easier to see, how many sides to the dice, how many dots on each side. Then introduce the new game board 1-12. Ask a student volunteer to help you roll two die. Then model how to write the numeral for that quantity of all the dots on the die. Some students may be able to combine the numbers with automaticity, however explicitly model how to find the total amount by counting all the dots as well. Be sure to display 5 & 5, 5 & 6, and 6 & 6 combinations and write each total as 10, 11, and 12. Tell them that they are going to work with a partner in rolling the dice and they will each get a game board on which to write the numbers that come up.  Explain your expectations on how to appropriately roll the dice and how they can take turns rolling it. Suggestion: some teachers have students roll the dice on a mat on the desk (8.5 x 11 sheet of paper, or a folder) as a means of creating a contained space to roll. This also cuts down on the noise. |
| Focus Questions for APS | How do you write the number? |
| Active Problem Solving | Provide each student with two die per pair and one recording sheet for each student. As you confer with students take note that each student has the opportunity to see the number of dots on the dice and is able to tell you the number it represents. If some students complete a column of number writing they can continue by trying to write their own without tracing the numbers. Game ends when all players until all numbers are written. Ask players which numbers they wrote the most. Which numbers did they write the least? Did they write any numbers the same amount of times? Did they not write any of the numbers and if so which ones? Players can play again if they finish early or they can complete the sheet by writing in any number that was not written. |
| Differentiation Suggestions | A variation on the game is to have number cards that students draw from a pile face down on the table. You can modify the numbers they can choose. A game board is included with only numbers 1-6 for one dice only, or use number cards 1-10 (and a modified game board). Other students you may ask them to keep a tally mark list of how many rolls it takes them to fill the page with written numerals. Some students may not need to trace the numerals and can be asked to write the numerals on their own. |
| Assessment Point | Notice  Who is already able to write numbers 1-12?  Who is identifying the number of dots on all sides of the dice?  Who is counting the dots on the dice and who knows the number at-a-glance? (subitizing)  Who is combining the numbers of both die and knows the combination? |
| Reconvene &  Focus Q. | After students have had time to complete about 15 minutes of numeral writing, reconvene the class to the meeting area. Play the game once as a group and ask for volunteers to roll the dice and another student to demonstrate how to write each numeral. Ask students if they have an easy way to remember how to write a number. This is an opportunity to discuss reversals and think about how the class can remember which way the numbers face. |