**Grade 4 Math – Division Fingerprints cont’d**

**February 9, 2015**

**2 periods (11:42-12:56)**

**Outcomes:**

7. Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by:

• using personal strategies for dividing with and without concrete materials

• relating division to multiplication.

**Learning Objectives:**

Students will:

* 1. Recognize relationship between division and multiplication
* 2. Apply strategies to solve basic division problems.

**Assessments:**

* Observations (1,2)
* Fingerprint division (1,2)
* Gallery walk

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| **Materials:**   * 8.5 x 17 paper – get several extras * ink pads * counters/manipulatives * whiteboards * worksheet | **Prep:**   * photocopy worksheet – from book |

**Differentiation:**

* have counters available for students who struggled with manipulative that don’t move!
* Valeria – work with her a little extra, maybe give her 8 instead of 36 or 24 - have her come to front table

**Lesson Outline:**

**Intro:**

* (2 minutes)WWL – What We’re Learning:
  + I can use objects/arrays to help me divide.
  + I understand how division and multiplication are related.
* Have students get whiteboards
  + Have every student draw 12 dots, but we’re going to draw them as an array
    - An array is just a pretty way of drawing our dots, will help us to make groups
    - Divide dots into several ways – into groups of 4, into groups of 6, etc.

**Body:**

* (15 minutes) – Division Worksheet
  + Guide first one or two questions
  + Have students work individually
* (25 minutes)– Finger Print arrays
  + Have students work in partners/groups from before
    - Divide their finger prints into easy to see groups
      * If students don’t have their fingerprints in an array, maybe have them redo it

**Conclusion:**

* (2 minutes)WWL
  + Go over two things we were supposed to learn!
    - Did we?
* (10 minutes – 12:40) – Gallery Walk
  + Each student writes a division sentence on their board, with a picture
    - Students walk around – give a dot if you agree or a question mark if you’re not sure.