Math Plans for December 5-9, 2016

**Standard:** MAFS.3.NF.1.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.

a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.

b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

**Calendar Math:** Teachers will dedicate 10 minutes everyday to review math skills already learned, through Calendar math. Skills will depend on class needs.

**Activator:** Teachers will give each group/team a string with index cards (teachers will prewrite fractions on the index cards). Students will work together to build a number line and place the fractions appropriately. Teachers will pull sticks for teams to share their work.

**DOK 1.1:** define a fraction.
- Teacher will use current fraction anchor chart to review parts of a fraction and what a fraction is (this is review).
- Students will discuss what a fraction is with their shoulder partner, teachers will pull random sticks to let students share their ideas.

**Evidence:** Students will define a fraction on the back of their DOK checklist.

**DOK 1.2:** define the parts of the fraction.
- Teacher will use current fraction anchor chart to review parts of a fraction, what a fraction is, how to partition and label them.

**Evidence:** Using the back of their DOK checklist, students will label the numerator, denominator and what they represent.

**DOK 1.3:** define partition
- Teacher will use current fraction anchor chart to review parts of a fraction, what a fraction is, how to partition and label them.

**Evidence:** Using the shape found on the back of the checklist, students will partition the shape and label it.

**DOK 1.4:** locate a fraction on the number line.
- Teacher will review how to locate a fraction on a given number line using previous Engage NY lessons.

**Evidence:** Students will be given a fraction to locate on the number line on the back of the DOK checklist.
**DOK 2.1: Partition a number line.**
- Teachers will use Engage NY Lesson 15 homework page to model how to partition a number and represent a fraction on the number line.
- Students will work with their shoulder partner to solve the second problem on the worksheet. Teachers will move around the room observing student work and clearing up any misconceptions partnerships may have.

**Evidence:** Students will complete the Engage NY lesson 15 homework page.

**DOK 2.2: Represent a fraction on the number line.**
- Teachers will use Engage NY Lesson 15 homework page to model how to partition a number and represent a fraction on the number line.
- Students will work with their shoulder partner to solve the second problem on the worksheet. Teachers will move around the room observing student work and clearing up any misconceptions partnerships may have.

**Evidence:** Students will complete the Engage NY lesson 15 homework page.

**DOK 2.3: Answer word problems using fractions on a number line.**
- Teacher will place a word problem on the board. The whole class will work together to solve it using strategies learned in the class. For example: circle the important information, underline the question, showing how we solved it and how to answer the question).
- Next students will be given a word problem to solve with their shoulder partner. They will use the Kagan structure "Rally Coach" to solve one problem as a pair.
  - Rally Coach Steps:
    1. Pair Shoulder Partners. Determine who is A and who is B.
    2. Present a problem for which there is only one correct answer.
    3. Partner A solves the problem while Partner B coaches, checks the accuracy of the answer and praises.
    4. If the answer is incorrect, Partner B coaches Partner A to the correct answer.
    5. Present a new one-answer-only problem.
    6. Partner B solves the problem while Partner B coaches, checks the accuracy of the answer and praises.
    7. Repeat from step 1.

**Evidence:** Students will be given one word problem to solve, they will show their work and use strategies learned in class.

**Flying Above: Represent a fraction on the number line beyond 1.**
- Teacher will model putting a fraction beyond 1 on a number line by using the Engage NY Lesson 17 Problem Set worksheet. The whole class will do one problem together as the teacher walks them through it.
- Students will then practice with their shoulder partner to complete problem #2.
Evidence: Engage NY Lesson 17 Problem Set worksheet (finish).

Remediation: Teachers will pull struggling students in small groups to help students and clear up any misconceptions (using the current anchor chart).
Possible misconceptions would be:
- Students may label the number line starting with the first fraction 1/3 instead of 0/3.
- Students may begin counting the first notch as "1/3 instead of 0/3."
- Students could be confused on numerator/denominator.

On Friday, students will take an assessment on NF.1.2

<<Assessment Questions for NF 1.2.docx>>

***Students will be given 5 minutes everyday for gonoodle recess.

Grade Book:
DOK Checklist (Classwork, 20%, out of 8)
Assessment (Quiz, 30%, out of 6)