Lesson Plan

Teacher:	**Class/Group:**	**Date:**

KNPIG ID #: A 3316.4 (Figure Me Out, Flynn)	**Task Group Name:** Figure Me Out	
AVMR Strand: Addition & Subtraction	**AVMR Construct Level/Color:** 3 to 4 Purple	

Fluency Benchmark for RTI:
2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

KAS(s):	**KAS Domain and Cluster:**
1) 1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = ???? - 3, 6 + 6 = ????. **2)** 1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **3)** 1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract 10 - 8 by finding the number that makes 10 when added to 8.	Operations and Algebraic Thinking **1)** Work with addition and subtraction equations. **2)** Represent and solve problems involving addition and subtraction. **3)** Understand and apply properties of operations and the relationship between addition and subtraction.

Learning Target: I can use a variety of composite strategies solve expressions within 20 and write the matching number sentence.

Setting/Materials:
Figure Me Out, Flynn work mat Expression Cards ? Missing Subtrahend Writing/coloring utensils Optional 20 bead rack and/or writing space (see alternate materials option under teachers notes)

Activity:
Each student receives their own work mat. Shuffle the expression cards and place them face down in the middle of the students. Students will draw seven expression cards and place them face down on the answer boxes on their work mats. The students will then flip over one expression card, find the answer, and write the expression and answer in the corresponding answer box. The used expression cards will be moved to the discard pile. The student will follow this process until the entire work mat is completed. Optional: Once the work mat is completed the student will draw/color in the person on their work mat according to their answers boxes.

Evidence of Learning (Diagnostic Assessment of Progress):
Place a missing subtrahend expression cards in front of the student. Have the student solve the expression card mentally and explain their thinking

Teacher Notes:
This activity challenges students to solve missing subtrahend tasks using the most effective strategy when subtracting. Students are ready for this activity when they no longer need to count starting at one. A bead rack may help students visualize and reason about the quantities involved. This activity may be played as an individual activity or as a small group. If playing with a large group of students multiply sets of expression cards should be provided. This is also a great grab and go activity for students during and indoor recess or choice time. The students can choose to create and name whatever character they would like or just use the Flynn character. In testing groups, younger children enjoyed creating themselves, and older children really liked using the results of the addition problems to create crazy characters. Literacy Extension: Students will work at different paces and some may be more engaged in drawing and coloring their characters than others. For those students with extra time, or just as a literacy extension, you could have them write a descriptive narrative about their character integrating the four qualities discovered on the front. ?Why does Flynn have 12 pets??/?What are the names of the character?s siblings?? Alternative Materials: Recommended lamination or protective sleeves for work mats so use of dry erase markers is possible. It is also recommended that expression cards are printed on card stock or heavier paper to prevent wear and tear. If printing the work mat is unavailable, students may create their own work mat on a piece of paper. Be sure to have them follow the same format as the one provided.

Printables Link:
http://knp.kentuckymathematics.org/knp/uploads/printables_3316.4A.pdf

Student Instructions Link: