Lesson Plan for KNP Activity
F 7703.0: Rods and Strips: How Many?

Teacher Planning Notes:

Task Group Number: 7703	**Task Group Name:** Rods and Strips
Strand: Fractions	**Activity Level and Color:** 0 Yellow

KNP Activity Link with access to Printables and Student Instructions:
/knp/activity.php?id=7703.0&prefix=F

Numeracy Target: Whole number foundations; introduce manipulative
Numeracy Targets Chart

Fluency Benchmark: Fractions Fluency with fractions

Kentucky Academic Standard(s): [KY.1.G.2](KY.1.G.2), [KY.1.MD.2](KY.1.MD.2)

Student-Friendly Learning Target: I am learning to determine how many equal parts make one whole.

Suggested Student Grouping(s): individual/partners/small group

Materials:
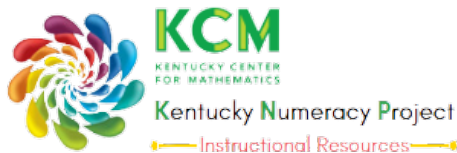Cuisenaire Rods set, recording sheet, 1 per student

Activity Description:
Students may work individually, in partners or in a teacher directed small or full group. Students will complete an activity sheet using cuisenaire rods. (Only white, red, purple, yellow, brown and orange rods are needed for this activity). Students will first predict, then determine, how many of a given smaller rod it takes to equal the lenghts of a given larger rod. For example, students are asked to consider 1 red rod (2 cm long) and 1 brown rod (8 cm long) and are asked to predict how many red rods it will take to equal 1 brown. After making a prediction, students use as many red rods as needed to test their predictions.

Teacher Notes:
A "Color Template" for cuisenaire rods is included for students who are color blind or have trouble with the color words. Before having students work the activity sheet, students may benefit from working similar tasks in small or whole group setting. Pose similar tasks, being sure that the answer will be a whole number. Bring attention to prediction strategies that involve estimating how many iterations of the small rod will be needed to equal the longer. As students test their predictions, notice if students are matching endpoints carefully and the smaller rods are laid end-to-end in a straight line with no gaps.

Evidence of Learning (Diagnostic Assessment of Progress):
Show a student 1 red rod and 1 orange rod. Ask, "How many red rods do you think it might take to equal the lenghth of 1 orange rod?" Allow student to touch and move materials. Observe if student has a strategy for making a prediction, such as moving the piece to estimate number of iterations needed. Four, five & six are all reasonable estimates. After student makes a prediction, place 6 to 7 red rods on the table and ask "Can you use these to test your prediction?" If needed ask "How many red rods do you need to line up to make the same length as the orange?" Observe if student places red rods in a straight line without gaps. Observe if student carefully makes a comparison by aligning both end points of the orange rod to the endpoints of the line of red rods.