

Lesson Plan for KNP Activity

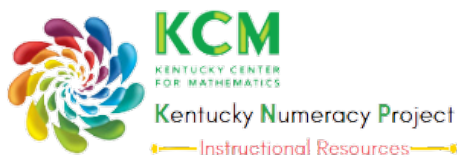
S 2209.1: Problem Solvers

Teacher Planning Notes:	
Task Group Number: 2209	Task Group Name: Problem Solvers
Strand: Structuring	Activity Level and Color: 1 Red
KNP Activity Link with access to Printables and Student Instructions: /knp/activity.php?id=2209.1&prefix=S	
Numeracy Target: Facile structures to 5 Numeracy Targets Chart	
Fluency Benchmark: KY.K.OA.5 Fluently add and subtract within 5.	
Kentucky Academic Standard(s): KY.K.OA.1 , KY.K.OA.2	
Student-Friendly Learning Target: I am learning to model and solve word problems using manipulatives in the range of 1-5.	
Suggested Student Grouping(s): whole group, small group, partners, or independent work	
Materials: question cards, picture mats, various manipulatives (counters, cubes, bear counters, etc.)	
Activity Description: Students will draw a question card and model the question with manipulatives using a picture mat. Students will then explain their thinking/describe their model to their teacher or partner and then figure out the missing quantity.	

Teacher Notes: The goal of this activity is for students to begin to understand part-part-whole relationships (i.e. understanding addition as putting together and adding to, and understanding subtraction as taking apart and taking from) of numbers via word problems. The range of numbers in this activity is kept relatively small (1-5) to give students opportunities to explore different ways to act out a computational situation using concrete materials, while still supporting the ongoing development of fluency to 5 (and building the foundation for fluency to 10 and 20). There is a dual focus within this activity; to help students develop strategies for breaking numbers into different parts and to become fluent with computation within 5. Strategy flexibility should be encouraged throughout this activity and keywords should NOT be promoted (i.e., the word altogether does not always mean addition, etc.). As students develop a good working knowledge of modeling and solving these types of problems with concrete materials, the activity can be extended by using containers (cups, cans, etc.) instead of mats. For example, if a student gets a card that says 3 bears went into the cave and 2 bears stayed outside the cave. How many bears are there in all?, the teacher could put 3 bears in a can and 2 bears beside the can so that the student can only see 2 of the bears, thus screening part of the collection, encouraging the development of additional strategies and foundations for abstract thinking. Teachers are also encouraged to create additional questions to supplement the questions provided within the activity. Using classroom and/or school specific questions are a great way to reinforce the understanding of computation while using real-world examples that are relevant to students. Problem cards are labeled with letters indicating the increasing level of complexity. Cards labeled with letter A address kindergarten levels of master. Cards labeled with letter B address first grade levels of master. Cards labeled with letter C address second grade levels of master. First grade students will continue to work with card type A while progressing to mastery to card type B. Second grade students will work with card type A and B while progressing to mastery of card type C. Students should not be restricted to a specific card type with they are ready to advance. Be flexible and allow them to work with what card type will challenge them.

Evidence of Learning (Diagnostic Assessment of Progress): Give student a small amount of counters (5-6). Verbally pose a question that involves situations of adding to, taking from, putting together, or taking apart in the range of 1-5 with unknowns in all positions and ask student to model the problem with counters.

KNP ID #S 2209.1



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