Lesson Plan for KNP Activity A 3340.6: **Problem Strings**

Teacher Planning Notes:	
Task Group Number: 3340	Task Group Name: Panel Dot Cards
Strand: Addition and Subtraction	Activity Level and Color: 6 Orange
KNP Activity Link with access to Printables and Student Instructions: /knp/activity.php?id=3340.6&prefix=A	
Numeracy Target: Extending and refining strategies for +/- Numeracy Targets Chart	
Fluency Benchmark: KY.2.NBT.5 Fluently add and subtract within 100.	
Kentucky Academic Standard(s): KY.1.NBT.4, KY.1.NBT.5, KY.2.NBT.9	
Student-Friendly Learning Target: I am learning to use composite strategies to add and subtract within 100.	
Suggested Student Grouping(s): teacher partner, small group, whole class	
Materials: Problem strings in the range of 100,100 bead rack (optional), writing materials	
Activity Description: The teacher will choose or create a problem string and present the string, one problem at a time, to the student or group of students. (See the print link for more information about problem strings and several examples.)	

Teacher Notes: Problem strings are a powerful tool for supporting math talk in the classroom. After posing problems, give plenty of wait time. Prompt students to explain their thinking and invite them to find and use a variety of strategies. Use questions such as \"Can you use this problem to solve the next problem?\", \"Can you solve it another way?\" and \"Do you see a pattern?\" to foster reflections, sense making and the development of more advanced strategies. If students need the support of materials, problems can be presented on a 100 bead rack, such as the virtual bead accessible through the interactive website link, and then screened. For more information about strings, see the print link.

Evidence of Learning (Diagnostic Assessment of Progress): Present any of the problem strings. Prompt student to explain thinking for each solution. Prompt student to look for patterns or ways to use previous problems to solve subsequent problems.

KNP ID #A 3340.6



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