

Lesson Plan for KNP Activity

M 4404.6: Matching Bug Word Problems

Teacher Planning Notes:

Task Group Number: 4404

Task Group Name: Buggin' Out - [2,4,6,8]

Strand: Multiplication and Division

Activity Level and Color: 6 Orange

KNP Activity Link with access to Printables and Student Instructions:

</knp/activity.php?id=4404.6&prefix=M>

Numeracy Target: Extend and refine strategies for multiplication and division

[Numeracy Targets Chart](#)

Fluency Benchmark: KY.3.OA.7 Fluently multiply and divide within 100.

Kentucky Academic Standard(s): [KY.3.OA.3](#), [KY.3.OA.4](#), [KY.3.OA.6](#)

Student-Friendly Learning Target: I am learning to match various representations to a single word problem.

Suggested Student Grouping(s): Small Group 4-5/ independent

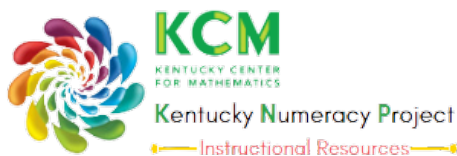
Materials: -Word problem Cards: 15 (Beetle) cards in total, 1 sheet; Representation Cards: 45 cards in total, 3 sheets: 15 Equation (A) representation cards; 15 Equation (B) representation cards; 15 Multi-form (un-labeled); representation cards; 5 equal groups cards; 5 Arrays cards; 5 Repeated addition cards

Activity Description: All the word problem cards (beetle cards) should be shuffled and placed upside down in the middle of the group. All the representation cards should be shuffled and scattered face up in the middle of the group. On their turn, a student will draw a word problem card and read it out loud. The student will then collect as many representation cards that match their word problem card as they can. The students will end their turn and stack the collect cards along with their word problem card in front of them. Play will continue until there are no word problem cards left. At the end of the game the students will check their matches and count the number of correct matches. The student with the highest number of correct matches wins the round.

Teacher Notes: This activity challenges students to enrich their understanding of the relationship between multiplication and division by applying multiple mental math strategies and their recall of basic facts to varied representations of different types of word problem equations. Students are ready for this activity when they recognize and apply the commutativity property of multiplication and the inverse relationships of multiplication and division. Each sheet of Representation Cards has one match for each Word Problem Card. If you want a single match for each Word Problem Card prints only one of the three Representation Card sheets. If you want to have two matches for each Word Problem Card print two of the three Representation Card sheets and so on. If necessary, label or mark the back of the matching sets of cards so that students may check their matches at the end of the game. We recommend starting with only one set of representation cards. Introducing the activity with multiple sets of representation cards seem to confuse and overwhelm the students. Keep in mind that the more representation cards being used, the longer the activity will take. This activity contains two set of word problem cards based off the common multiplication and division situations. These problem types can be found in the table on page 89 in the Common Core State Standards for Mathematics. The one unknown could be group size, group number, or product. Cards are labeled appropriately. o 5 Beetle Cards (Column one): Equal groups- one unknown o 5 Beetle Cards (Column two): Arrays- one unknown o 5 Beetle Cards (Column three): Compare- one unknown It is recommended that word problem cards and representation cards are printed on card stock or heavier paper to prevent wear and tear. Created by Jordan Rhude & Emily Westerling, 2015

Evidence of Learning (Diagnostic Assessment of Progress): When read a beetle word problem card, student can choose three matching representations from nine different choices.

KNP ID #M 4404.6



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