

Lesson Plan for KNP Activity

M 4404.3: When Bugs Attack

Teacher Planning Notes:	
Task Group Number: 4404	Task Group Name: Buggin' Out - [2,4,6,8]
Strand: Multiplication and Division	Activity Level and Color: 3 Green
KNP Activity Link with access to Printables and Student Instructions: /knp/activity.php?id=4404.3&prefix=M	
Numeracy Target: Count items arranged in equal groups with only group markers visible (items with groups are not visible) Numeracy Targets Chart	
Fluency Benchmark: KY.3.OA.7 Fluently multiply and divide within 100.	
Kentucky Academic Standard(s): KY.2.OA.4 , KY.3.OA.1 , KY.3.OA.4	
Student-Friendly Learning Target: I am learning to count groups of hidden items using skip counting to find the product.	
Suggested Student Grouping(s): Small Group 4-5 / independent	
Materials: - Bug Game Card: 120 cards total, 4 sheets: Fly Cards: 2 wings; Butterfly Cards: 4 wings; Spider Cards: 8 legs; Ladybug Cards: 6 legs; Ladybug Recording Sheet: one per person	

Activity Description:

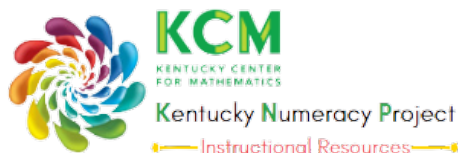
Each student should receive their own recording sheet. Separate each set of cards into different piles base on the bug type (or number on the card). On their turn, students will draw 10 bug game cards of the same bug type. The student will then write their bug type and number of bug parts found on the card on their recording sheet. (It is recommended to begin with the fly card (2 wings) and select the next largest card on their next turn. The student will then say "Bug Attack!" and toss the cards up in the air. The student will count the number of cards that land face down. Next the student will record their multiplication equation based on the number of cards face down. Ex. The student toss up 10 spider cards and five landed face down. Their equation would then be $5 \times 8 = ?$ (five groups of eight). Using the skip counting method the student will find the total. Then student will end their turn by writing the product in the "total" box on their recording sheet. Play will continue until all students have had four turns. One for each type of bug card.

Teacher Notes:

This activity challenges students to use multiplicative counting to count item in groups using perceptual markers. The student is ready for this activity when they can easily distinguish that a marker represents a specific group size and is showing strength in skip counting strategies. If the student is struggling with a specific fact or set of facts feel free to only use those specific cards instead of the entire set of bug game cards. Game may be played as many times as you see fit. The number of bug game cards drawn should be determined by the teacher if not wanting to use the original ten. When students are able to work with quantity conceptually they will be ready to record their equations on the recording sheet. Students may prefer placing their bug game cards in a cup and dumping them out instead of throwing them up in the air. Using the cups also helps students keep track of their bug game cards. Use lamination or protective sleeves for the recording so use of dry erase markers is possible. Protective sleeves are easier to erase than lamination but do not hold up as long. It is recommended that Bug Game Cards are printed on card stock or heavier paper to prevent wear and tear. Alternative materials: To replace bug game cards, numeral cards labeled [2, 4, 6 and 8] may be used. If printing the recording sheet is not possible, students may create their own recording sheet on a piece of paper. Be sure to have them follow the same format as the one provided. Created by Jordan Rhude & Emily Westerling, 2015

Evidence of Learning (Diagnostic Assessment of Progress):

Students will select eight spider cards and toss them in the air. Students will write corresponding number sentence for the number of cards that land face down multiplied by eight and then write the product.

KNP ID #M 4404.3

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