The Cicada Cycle

Summary

Students will use their knowledge of Least Common Multiples to solve a real world problem related to cicada infestations.

Main Core Tie

Mathematics Grade 6
Strand: THE NUMBER SYSTEM (6.NS) Standard 6.NS.4

Time Frame

1 class periods of 60 minutes each

Group Size

Individual

Materials

- Copy of the task sheet
- Paper
- Pencils
- Rulers
- Manipulatives: (counters, chips, etc.)
- Pipe cleaners, paper plates, yarn (optional for Venn Diagram)

Background for Teachers

Teachers will want to familiarize themselves with cicadas and their impact on agriculture. This can be done by previewing the video clips that are listed on the lesson plan.

- Curriculum guide for Grade 6 The Number System Standard 4

Student Prior Knowledge

Students will need a working knowledge of how to find the LCM of two numbers as well and the ability to apply the skill to a new problem.

Students will need a general understanding of insect life cycles and their impact on agriculture

Some students may need visual representations of cicadas

Intended Learning Outcomes

Students will use their working knowledge of LCM to solve real-world problems related to cicada infestations.

Strategies for Diverse Learners

For students who finish early, challenge them to solve the problem using a different method and then be able to explain which method was easier/more appropriate for this particular problem. Use the following guided questions to support struggling students:

- Could you draw a picture?
- Show me what you've done.
- What do you think the answer should look like?
- What tools in the classroom could help you?

Extensions

Students could research actual data on cicada infestations to determine if their data matches and explain why or why not.

Bibliography

Adapted from: Smith, Margaret Schwan, Victoria Bill, and Elizabeth K. Hughes. "Thinking Through a Lesson Protocol: Successfully Implementing High-Level Tasks." Mathematics Teaching in the Middle School 14 (October 2008): 132-138.

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