

Eucalyptus Lesson Plan



Created by: Angeli Tempel
George Mason University, COMPLETE Math
Fall 2015

The Task

99% of the trees in our neighborhood are eucalyptus trees. The town planning commission wants to get rid of some of these trees because they spread too quickly. However, the people in my neighborhood like the trees. The commission argues that their new eucalyptus tree removal plan will cut down so few eucalyptus trees that 98% of the trees in our neighborhood will be eucalyptus trees. If the plan only involves removing eucalyptus trees, what percent of the existing trees in my neighborhood would the plan remove?

Materials

- The Task
- Calculators
- Grid Paper
- Poster Paper (one sheet per group)

Facilitating Task

- Launch the task by reading it aloud.
- Clarify the task as needed by asking students to retell the story and identify what's known and unknown.
- Provide individual think time, so students can process and begin solving.
- Small groups (4 students maximum) compare strategies and solutions. After reaching consensus, small groups record solution and justification on Poster Paper.
- Each group shares their solution and justification.
- The teacher asks questions to support students in connecting the strategies shared and the mathematical ideas highlighted.

Misconceptions

- Students might use an additive approach instead of multiplicative reasoning. For example, students might think that only 1% of the Eucalyptus trees will be removed because 98% is one percent less than 99%.
- Students might have difficulty figuring out that the number of non-Eucalyptus trees remains constant.
- Students might have trouble keeping track of the whole, especially since the number of trees originally in the neighborhood is not given.

Suggested Prompts or Questions

- How is this problem similar to other problems you might have solved?
- What's staying the same and what's changing?
- How might you represent this situation?