



Paideia Seminar Lesson Plan



Text:

Amanda Bean's Amazing Dream by Cindy Neuschwander

Grade/Subject

Upper Elem / Math



Ideas, Values:

Math, Efficiency, Accuracy, Symbol



Pre-Seminar Content



Launch Activity:

Students prepare their own definition of multiplication, first independently, and then write a definition as a class on a chart or a slide on the interactive whiteboard.



Inspectional Read:

Predict the genre of the text by previewing the cover and formatting of the pages. Ask students whether they have ever read a book like this before.

Background Information:

Share as appropriate: Cindy Neuschwander is a native Californian, born in San Diego. Her father was a naval officer and later a high school teacher and her mother was a homemaker. She has one younger brother.

Cindy graduated with a BA in International Studies from Willamette University and earned an MA from Stanford University. She has taught all grades in elementary school as well as high school.

In addition to her teaching, Cindy is the author of eight published picture books for children with mathematical themes. She has written:

Amanda Bean's Amazing Dream

Mummy Math

88 Pounds of Tomatoes

The Chocolate Champs

Sir Cumference and the First Round Table

Sir Cumference and the Dragon of Pi

Sir Cumference and the Great Knight of Angleland

Sir Cumference and the Sword in the Cone

Vocabulary:

As the teacher reads the text aloud, students identify words or phrases that are unfamiliar. Provide meaning and discussion until all are comfortable. Words identified may include *rows, columns, groups, efficient, accurate*.

Analytical Read:

As the teacher reads the text aloud for a second time, ask students to note (jot down) multiplication sentences that they hear or see as the text progresses.



Pre-Seminar Process

 Define and state purpose for Paideia Seminar.

- ✧ Describe the responsibilities of facilitator and participants.
- ✧ Have participants set a Personal Goal.
- ✧ Agree on a Group Goal.

Seminar Questions

Opening (Identify main ideas from the text.):

- ❖ Where in the text do you see an example of multiplication? (Students had made notes about this in the *Analytical Read*) (round-robin contributions)
- ❖ How do you know that the example you chose was a multiplication sentence? (spontaneous discussion)

Core (Analyze textual details.):

- ❖ What was Amanda's problem and how did she solve it?
- ❖ What is the difference between groups, rows, and columns in terms of mathematics?
- ❖ How does an array help us multiply?
- ❖ Which is better to use: repeated addition or multiplication? Explain.
- ❖ Would you ever use repeated addition once you had learned how to multiply? Why?

Closing (Personalize and apply the ideas.):

- ❖ How do you use multiplication outside of school?

Post-Seminar Process

- ★ Have participants do a written self-assessment of their personal participation goal.
- ★ Do a group assessment of the social and intellectual goals of seminar.
- ★ Note reminders for next seminar.



Post-Seminar Content

★ Transition to Writing:

Create a new definition of multiplication. Then refer to the definition of multiplication created in the *Launch* and refine it.

★ Writing Task:

Create a math story problem and use pictures or models to represent the problem. Write a paragraph in which you persuade the reader of the most efficient method of solving the problem.



Brainstorm:

Discuss strategies that students use to solve repeated addition problems or multiplication problems. Present students with a few questions and have students find a solution using pattern blocks, cubes or scraps of paper.

- Which has more window panes: a window with 5 rows and 4 panes in each row, or a window with 3 rows and 6 panes in each?
- Which has more cookies: 3 rows with 8 cookies in each row, or 4 rows with 6 cookies in each?
- Which has more wheels: 5 tricycles or 7 bicycles?
- Which has more legs: 7 humans or 3 kittens?

Structure the Writing:

Have students list the components of the story problem they will write, and the materials they will use to represent the problem. For example, a student might decide to include objects in his or her problem such as fish in fishing nets, books on bookshelves, kids on skateboards and rollerblades; and might choose to represent the objects with pattern blocks, unifix cubes, stick figures or tally marks.

First Draft:

Invite students to write the first draft of their story problem and paragraph, encouraging them to draw freely on the models provided in the *Brainstorm*.

Collaborative Revision:

Have participants work in pairs to read the first drafts of their paragraphs aloud to each other with emphasis on reader as creator and editor. Listener says back one important point heard clearly and asks one question for clarification. Switch roles. Give time for full revisions resulting in a second draft.

Edit:

Once the second draft is complete, have participants work in groups of three-four with teacher support, this time taking turns reading each other's second drafts slowly and silently, marking any spelling or grammar errors they find. (Have dictionaries and grammar handbooks available for reference.) Take this opportunity to clarify/reteach any specific grammar strategies you have identified your students needing. Give time for full revisions resulting in a third and final draft.



Present the collection of story problems to a second grade class.

This Paideia Lesson Plan was created by:

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Organization: Providence Spring Elementary School



Text:

<https://www.youtube.com/watch?v=WMdjNJxr1TU>