Instructional Strategies that Promote Literacy in Mathematics

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Five Literacy Elements

- Thinking
- Listening
- Speaking
- Reading
- Writing
What comes first? The chicken or the egg?

- Strategy selection
- Lesson design
The van Hiele instructional cycle

- Information
- Guided Orientation
- Explicitation
- Independent Orientation
- Integration
Practices that support students’ mathematics and literacy development (Masingila & Hinchman, 2005)

- Problem of the day

- Modified textbook investigations

- Teachers changed focus on data collection
Problem of the Day

A square sheet of paper is folded vertically. Then it is cut in half along the fold. What is the ratio of the perimeter of each rectangle to the perimeter of the square?
Problem of the Day

Draw the next figure in this pattern.
Investigation: Brenda’s Walk

Starting at home, Brenda walked 1 block north, 2 blocks east, 3 blocks south, 4 blocks west, and so on, each time turning 90° to her right and walking one block further.

1. After walking a total of 190 blocks, how many blocks is Brenda from home?
2. Plot Brenda’s walk on a coordinate grid locating Brenda’s home at the origin. Describe the endpoints of the segments along the walk. Are there patterns? Find the rules, if possible?
3. ...
References

