1. Making Math Relevant to Elementary Students

Summary: It's a well-known conundrum that students often don't find math relevant to their lives, yet need to do so in order to engage with the material. In an article published by the Australian Association of Mathematics Teachers, Curtin University of Technology professor Len Sparrow summarizes research on making math relevant and meaningful to elementary students.

Practical Applications

Sparrow points out that too often, attempts to make math meaningful happen through pseudo-relevant problems, such as a word problem about carpeting to teach area. These efforts tend to be ineffective because most elementary students do not care about things like carpeting a floor, and the simplified problem is far from reality. Teachers must instead meet students at a place that is relevant to them. Sparrow offers several different researchers' models to reach students:

- Creating mathematical activities that are "experientially real" to students through a planned cycle of:
  - Exploring (students investigate a situation together)
  - Explaining (students describe their methods and findings)
  - Reflecting (students consider how findings connect to previous knowledge)
  - Recording (students "write, draw, model, etc. their findings and experiences")
- Creating tasks that are purposeful to students by tapping into their lives. Sparrow describes another researcher's planning matrix which combines purposeful activities and meaningful contexts, for example:

Purposeful Activities	*Meaningful Contexts*
Solving a real problem	Classroom
Planning an event	Fund-raising
Designing and constructing	Sports

  Sparrow gives the example that "combining 'planning an event' and 'fund-raising' could lead to children devising ways to raise money to support a school or class nominated charity."
- Finding out student interests through regular surveys, and using these interests in planning mathematical tasks.
- Integrating other subject areas into math, such as weaving in a science or art unit.

Conclusion and Citation

Mathematics relevance in elementary school is more about finding connections to students' current lives than it is stretching to demonstrate the real-world adult applications. Even the most esoteric task can become relevant if it is grounded in student interests or framed as an experiential discovery. As Sparrow concludes, "mathematics becomes real when children explore and solve problems that require them to use their mathematical knowledge and skills in contexts that are neither contrived nor sanitized."

Sparrow, L. "Real and Relevant Mathematics: Is it Realistic in the Classroom?" *Australian Primary Mathematics Classroom, 13.2 (2008), pp. 4-8.* http://tinyurl.com/29cqg8n *(free)*