

Teaching Real-Life Geometry

Summary: Geometry often simply exists within the confines of the classroom and textbooks. In an article for *Teaching Children Mathematics*, three professors from Shippensburg University discuss a strategy for helping elementary students engage with geometry in an extremely real-life way.

Practical Applications

The authors describe the strategy of a “Shape Walk,” where first- and second-grade students were taken to a local university campus and toured the grounds, seeking out different two- and three-dimensional shapes (a park or other location could be substituted, and the geometric concepts could be adapted for older students). Particular features of the shape walk were:

- The main instructions students were given were to “Look out into the world and see how many geometric shapes you can see and identify.”
- Students were provided with clipboards, paper and pencils
- Some groups of students were asked to sit and draw “any shapes they saw in the surrounding environment” as a way to focus their exploration
- Students were able to practice the idea of perimeter by walking around the perimeter of objects they came across
- Geometrically relational words such as “*over, under, above and below*” were used
- As the culminating activity, students were asked to sit and draw a university building using geometric shapes. The teachers were amazed at how well students were able to convert the three-dimensional building into a two-dimensional representation

The other advice the authors give is:

- Have this be part of a broader geometry unit, with more direct instruction at the beginning, and the shape walk as a form of practice
- Students can start to see real-life applications of shapes in their classroom, on their clothes, etc.
- By doing real-life exercises like the shape walk, students are far more able to ground their learning, increasing comprehension and retention of the material.

Conclusion and Citation

As a way to make geometry come alive and build students’ mastery, as well as motivation, consider using a “Shape Walk” or an equivalent activity that provides real-life experience.

Minetola, J., Nelson, L. & Serr, K. “Authentic Geometry Adventures.” *Teaching Children Mathematics* (Mar. 2012), pp. 434-438. <http://bit.ly/AAAd9B5> (subscription only).