

Comparing Geometry Textbooks

This will be completed as a team of two to three students.

Textbooks are a useful resource available to you as a mathematics teacher. You can take advantage of what your textbook offers by examining it through a critical lens that is informed by your understanding of mathematics and your knowledge of your students. Whether or not you are required to follow a textbook closely, it is useful to analyze a textbook's offerings, assess its mathematical strengths, weaknesses and appropriateness for students and adapt, extend or draw from it in planning a lesson.

For this assignment you will examine and compare THREE texts on some geometry topic of your choice.

1. Select a geometry topic of your choice. (You can look in the chapter outlines for ideas.)
2. Read the NCTM STANDARDS and State core on geometry, specifically on the topic you have selected.

NCTM Standards:

<http://standards.nctm.org/document/chapter7/geom.htm>

Utah State Core:

<http://www.schools.utah.gov/curr/math/sec/core.htm>

Use these ideas, those presented in the course, and ideas from other readings and class discussions to evaluate the texts. Focus on worthwhile tasks, diverse ways students learn, the importance of connecting new topics to previous knowledge, the usefulness of collaboration and trends in mathematics to guide your comparison. Pay attention to the Van Hiele model and the level at which each text might be appropriate.

3. Compare the texts by ways in which the tasks and activities outlined:
 - a. Connect previous knowledge to the current topic.
 - b. Include opportunities for use of technology.
 - c. Engage students in worthwhile activities.
 - d. Stimulate student interest.
 - e. Lead students to understand the potential real life applications.
 - f. Provide students with opportunities to construct meaningful understandings.
 - g. Challenge students to reason and extend their thinking?
 - h. Any other thing you would like to include.

Write a 2-3 page (double-spaced, size 12 font) report on your insights and opinions about the textbooks. Each person should write their own report, but I would like some collaboration of thoughts in each report, from your group.