

Handout

NCTM 2016 Annual Meeting & Exposition
San Francisco, CA

Essential Understanding of Geometry for English Language Learners

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Presentation #271
Friday, April 15, 2016
8:00AM-9:00AM
3007 Moscone Center

Geometry is an essential part of mathematics but frequently loses its way in the middle school grades. A growing preeminence on early algebra, and in addition on working with variables in deriving general formulas, can make what is fundamentally geometric about a circumstance fade into the context and yet disappear.¹

This presentation shows a set of tasks that support the centrality of geometry. The formula for the area of a triangle and the Pythagorean theorem are explored using decomposition and rearrangement.

The blackline masters have been designed in different language proficiency levels without modifying math goals, so students can respond to them in accordance with their language acquisition stage. Social and analytic scaffolding are interrelated, and mathematical discourse is focused on the key practices of argumentation, strategic usage of tools, and attention to precision.

The presentation slideshow can be accessed on my website, <http://jsala.com>. Videos can be seen in the html version, and links are fully operational in the pdf version. These links address to the blackline masters and to dynamic geometry files. The web version of these dynamic geometry files can be accessed on my website.

¹ Adapted from Sinclair, Nathalie, David Pimm, and Melanie Skelin. Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 6-8, page 7. Essential Understanding Series. © 2012 (eBook) by The National Council of Teachers of Mathematics, Inc. www.nctm.org.