



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2017 Volume II: Watershed Science

The Statistics of Watershed Science

Guide for Curriculum Unit 17.02.09
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This unit is a multidisciplinary unit created for a high school math classroom, designed to combine statistics and hydrology. In this unit, students will learn about the water cycle and water budgets within the watershed. The unit starts with learning about basic budgeting in a watershed, comparable to financial budgeting, and expands to creating linear regressions based on the relationship between precipitation, discharge, and evapotranspiration in a watershed system. Students will be able to synthesize the information they learn about the watershed to learn about topics such as graphing points, lines, creating scatterplots, and creating linear regressions for the line of best fit. By teaching statistics through the lens of the watershed, the primary objective is to facilitate active, engaged learners who understand how math can be usefully applied to various contexts in the world around us while gaining a deeper appreciation for the water resources on Earth.

This was designed for a Geometry classroom, but could be modified for Pre-Algebra- Statistics based on student needs and interest level.

(Developed for Geometry, grade 10; recommended for Algebra 1, grade 9, and Statistics, grades 10-11)

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