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**Going with the flow: challenging students to make assumptions.**

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Summary: Many current and future teachers have little experience with modeling and how to integrate it into their teaching. However, with the introduction of the Common Core State Standards for Mathematics (CCSSM) and its emphasis on mathematical modeling in all grades, this integration has become paramount. Therefore, middle-grades teachers must work to lay the groundwork for modeling, which must then continue into high school. In this article, the authors describe a unit designed to introduce modeling to prospective teachers (referred to in this article as students) and consider how this unit can illuminate classroom practice. They focus on one problem, the Water Conservation task, which is also well suited for use with middle school students. Because the reasoning and judgement demanded by the modeling process applies at all grade levels, the authors believe this type of experience can further the process of mathematical modeling in the middle school classroom. (ERIC)

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*Keywords:* mathematical models; modeling; activities; flow rate; interpretation; teacher education

<http://www.nctm.org/Publications/mathematics-teaching-in-middle-school/2015/Vol20/Issue6/Going-with-the-Flow.-Challenging-Students-to-Make-Assumptions/>