

1023-N5-1494

Steven R Benson* (sbenson@edc.org), Center for Mathematics Education, Education Development Center, 55 Chapel St, Newton, MA 02458, and **Karen J Graham, Todd Grundmeier** and **Neil Portnoy**. *Connecting Postsecondary and Secondary Mathematics: Content for Preservice Teacher Courses.*

Teachers make an incredible number of mathematical decisions every day, from fielding student questions and observations (expected and unexpected), to determining when an activity has played out its usefulness or is on the verge of paying off in a major way, to judging which of several directions, if pursued, is likely to lead to development of important mathematical ideas and which are, most likely, dead ends. The needed *pedagogical* judgments depend heavily on *mathematical* knowledge that is not the same as that required of an engineer, actuary, or research mathematician. We will discuss two collections of curricular materials designed to encourage inservice and preservice teachers to engage in mathematical investigations, from the exploratory stage through the logical connection-making of proof, building connections to the mathematics they will teach. We will discuss the use of these materials in a number of settings, from study groups and directed reading to upper level core and seminar courses and with preservice and inservice teachers. (Received September 26, 2006)