

## Road Map to Doing What Works (dww.ed.gov) Professional Development Materials National Mathematics Advisory Panel: The Major Topics of School Algebra

	LEARN	SEE HOW	DO
	Expert Video Interviews	Videos, Audios, Slideshows	Tools
Topics of Algebra (content)	Hung-Hsi Wu Part 1. The content of a coherent algebra framework, including the importance of making connections across topics. Part 2. Professional development—the content algebra teachers need to know.	<ol> <li>Buffalo Grove (IL)—teaching symbols and expressions</li> <li>Douglas County (CO)—applications of linear equations</li> <li>Douglas County (CO)—problem-solving in algebra</li> <li>ED Teaching Fellow—patterns within functions</li> <li>ED Teaching Fellow—introducing logarithms</li> <li>Douglas County (CO)—district perspective on algebra</li> <li>Plus materials related to media items and lesson plans for teacher demos</li> </ol>	<ol> <li>Plan for professional development activity/teacher meeting re: the key messages of the NMP about algebra.</li> <li>Review process for assessing congruence between NMP recommendations about algebra and district standards, curricula, and assessments.</li> <li>Observation tool for learning from other algebra teachers.</li> </ol>
Multiple Paths (courses and supports)	<b>Bonnie Grossen</b> Part 1. The need for alternatives to support students who lack preparation for algebra. Part 2. Characteristics of instruction that support struggling algebra learners.	<ol> <li>Falls Church (VA)—operating an algebra "boot camp"</li> <li>Douglas County (CO)—helping struggling algebra students</li> <li>Palo Alto (CA)—algebra for all students</li> <li>Falls Church (VA)—contents of honors algebra</li> <li>Douglas County (CO)—professional development in secondary mathematics</li> <li>CT SEA—state education agency perspective on algebra</li> <li>Plus materials related to media items.</li> </ol>	<ol> <li>Guide for reviewing algebra course success rates and determining strategies for support.</li> <li>Approach for systematic analysis of student errors.</li> <li>School self-assessment inventory of practices in place to support struggling algebra learners.</li> </ol>