

Core Principles of the Math-in-CTE Model

Core Principle	Processes
<p>A. Develop and sustain a community of practice.</p>	<p>Cohorts of CTE-math teacher teams are formed around specific occupational foci or CTE content (e.g. business, auto technology, health).</p> <p>Administrators/school districts/professional organizations provide structure and support to build and sustain communities of practice including:</p> <ul style="list-style-type: none"> • Regular professional development that brings the communities of practice together several times during the academic year. • External “stimuli” to keep teachers focused on the math interventions. • On-going support for CTE teachers for development and implementation of math-enhanced lessons.
<p>B. Begin with the CTE curriculum, not with the math curriculum.</p>	<p>CTE-math teacher teams <i>interrogate the curriculum</i> to identify the math embedded in the CTE curriculum.</p> <p>CTE-math teacher teams create curriculum maps that identify the intersection of occupational content and math constructs/concepts.</p> <p>CTE teachers use a scope and sequence to guide implementation of math-enhanced CTE lessons.</p>
<p>C. Address the math in CTE as an essential workplace skill.</p>	<p>CTE-math teams generate math examples in which students solve authentic workplace problems.</p> <p>CTE teachers introduce and reinforce math as a “tool” to use in the workplace.</p> <p>CTE teachers bridge CTE and math vocabulary as they develop and teach the lessons.</p>
<p>D. Maximize the math in CTE curricula.</p>	<p>CTE-math teacher teams continue to locate as much math as possible in the CTE curricula throughout the year.</p> <p>CTE teachers build on students’ prior math knowledge and skills.</p> <p>CTE teachers capitalize on teachable moments that follow the math enhanced lessons.</p>
<p>E. Support CTE teachers as “teachers of math-in-CTE,” not as math teachers.</p>	<p>CTE teachers participate in professional development activities that enable them to teach the math as it occurs in their CTE content, a process that involves:</p> <ul style="list-style-type: none"> • helping CTE teachers learn more about the math concepts in their CTE curricula. • helping CTE teachers learn math formulas and vocabulary. • providing opportunities for CTE teachers to practice teaching the math in their curricula.