

Charter  
High School Math Materials Adoption and Common Assessment Workgroup  
Spring 2009  
March 24, 2009

<b>Authorized by</b>	Superintendent's Cabinet and Teaching and Learning Services Leadership Team
<b>Purpose</b>	To develop common assessments for Algebra, Geometry and Algebra 2 and to review and select a cohesive, comprehensive, standards based high school math program and implementation plan for Algebra, Geometry and Algebra 2 to be implemented in the fall of 2009.
<b>Time Frame</b>	Meetings in March through June of 2009.: <ul style="list-style-type: none"><li>• Scope and Sequence work – creation of common assessment items</li><li>• Review research, create tools for evaluation of materials</li><li>• Evaluate materials</li><li>• Determine finalists for in-depth study</li><li>• In-depth study</li><li>• Determine the best fit for Issaquah students, make recommendation to Assistant Superintendent, present to IMSC, and await Board approval.</li></ul>
<b>Goals</b>	Select high school mathematics materials that will have the following focus: <ul style="list-style-type: none"><li>➤ <b>All Students</b> – Support the full continuum of student learning needs at all achievement levels.</li><li>➤ <b>Cultural Competence</b> – Provide teacher tools to ensure the success of students from multiple cultures.</li><li>➤ <b>Curriculum Coherence</b> – Support consistent outcomes within each grade level and ensuring that all students meet standard and demonstrate learning mastery in mathematics.</li><li>➤ <b>Articulated Continuity</b> – To provide continuity as students progress through the sequence of math courses, including the transition from middle school and to pre-calculus.</li><li>➤ <b>Standards Based</b> Support the standards and primary understandings of the research - based models for learning mathematics including the 2008 Washington State Standards, NCTM <i>Principles and Standards</i>, <i>Professional Standards</i> and <i>Assessment Standards</i>..</li><li>➤ <b>On-going Assessment Focus</b> – Encourage the use of data from formative and summative student assessments to monitor and adjust instruction. Provide open communication between teachers and T&amp;LS to best evaluate process and practices.</li><li>➤ <b>Best Practices in Teaching and Learning</b>– Align with research based best practices like those detailed in <i>How People Learn and How Students Learn Mathematics</i> These will include:<ul style="list-style-type: none"><li>○ Inclusion of all levels of cognitive demand (Bloom)</li><li>○ Engaging student preconceptions and building on existing knowledge.</li><li>○ Supporting student learning that establishes deep foundations of factual knowledge and organizes that knowledge into conceptual frameworks.</li><li>○ Supporting metacognitive learning.</li></ul></li><li>➤ <b>Best Practices in Mathematics Instruction</b> – Align with research based best practices in the field of mathematics such as <i>How Students Learn Mathematics</i>, <i>Adding It Up</i> and <i>Handbook of Research on Improving Student Achievement</i>. These will include:<ul style="list-style-type: none"><li>○ Including instructional tasks that encourage high- level student thinking and reasoning rather than tasks that are consistently procedural in nature</li><li>○ Providing opportunities for both guided reinvention and skills fluency practice</li><li>○ Focusing instruction on the meaningful development of important mathematical ideas</li><li>○ Learning new concepts and skills while solving problems</li><li>○ Encouraging students to find their own solution methods and provide opportunities for them to share and compare their solutions</li></ul></li></ul>

- Using a combination of small group, individual work and class discussion
- Attending to number sense when teaching a wide variety of mathematical topics
- Using manipulative materials to give students hands – on experiences that help them construct useful meanings for mathematical ideas
- Appropriately using technology to increase student problem-solving abilities

*How Students Learn*, National Research Council, 2005

*Adding It Up*, National Research Council, 2002

*Implementing Standards-Based Mathematics Instruction*, Stein, Smith Henningsen and Silver, 2000

*Handbook of Research on Improving Student Achievement*, 2<sup>nd</sup> ed, Educational Research Service, 1999

<b>Membership Selection Criteria</b>	<p>Up to 13 teachers, three from IHS, LHS, SHS and PCFC , one teacher from TMCHS and the Math Specialist. Members must:</p> <ul style="list-style-type: none"> <li>➤ Willing to serve and attend meetings regularly.</li> <li>➤ Communicate effectively and courteously with their colleagues in the work group.</li> <li>➤ Communicate effectively with their building teachers and principal and report feedback to the committee.</li> <li>➤ Able and willing to mediate difficult decisions within their buildings and represent a definitive position to this work group.</li> </ul>
<b>Facilitation</b>	<p>Leslie Nielsen, Math Specialist with Teaching and Learning Services          Role: Prepare agenda, monitor meeting time, guide discussions, elicit and publish “talking points,” write up minutes and e-mail to those present for feedback before posting on Intranet.</p>
<b>Approach</b>	<p>Each team member should be prepared to:</p> <ul style="list-style-type: none"> <li>➤ Focus on student achievement as the paramount priority.</li> <li>➤ Actively listen to and learn from other representatives by effectively and courteously bringing issues and concerns to the table, especially the concerns of his or her building.</li> <li>➤ Make recommendations to the work group on behalf of the representative’s building, especially if that recommendation has to synthesize diverse views and opinions. Reps are expected to be able to garner the support of their building for this recommendation.</li> <li>➤ Agree to support consensus decisions of this group according to the group’s definition of consensus:</li> </ul> <p><u>Consensus</u> is a decision that has been reached when most (10 of 13 ) members of the team agree on a clear option and the <u>few</u> who oppose it think they have had a reasonable opportunity to influence that choice.</p> <p><b>Once consensus has been achieved, <u>All</u> team members agree to support the decision.</b></p>
<b>Scope of Authority</b>	<p>This group will advise and make recommendations as appropriate.          The recommendations of this group will be taken to the Assistant Superintendent for comment and approval.</p>
<b>Support</b>	<p>The District will provide compensation for participants at the staff development per hour rate for time outside the contract.</p>
<b>Report</b>	<p>Minutes will be posted on the district Intranet after each meeting.</p>