

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
<p>GOAL 1:</p> <ul style="list-style-type: none"> ▪ Increase achievement of all students ▪ Reduce achievement gap 					
<p>Math – Elementary:</p>					
<p>Overall scores on benchmark <u>State standards-based assessments (SBA)</u> increase annually for grades 3-6.</p>	<p>↑ 3% benchmark <u>SBA</u> scores</p>	<p>↑ 3% <u>2.5%</u> benchmark <u>SBA</u> scores</p>	<p>↑ 3% <u>2.5%</u> benchmark <u>SBA</u> scores</p>	<p>↑ 3% <u>2.5%</u> benchmark <u>SBA</u> scores</p>	<p>↑ 3% <u>2.5%</u> benchmark <u>SBA</u> scores</p>
<p>Pacing guides K-6 in place and in use in every classroom.</p>					
<p>Fourth grade teachers know 4th grade math content and pedagogy.</p> <p><u>Fifth grade teachers know 5th grade math content and pedagogy.</u></p> <p><i>All fourth and fifth grade teachers inserviced on adopted math curriculum.</i></p>	<p>Fifth <u>Sixth</u> grade teachers know 6th grade math content and pedagogy.</p> <p><u>Third</u> grade teachers know 3rd grade math content and pedagogy.</p> <p><i>All fifth third and sixth grade teachers inserviced on adopted math curriculum.</i></p>	<p>Third grade teachers know 3rd grade math content and pedagogy.</p> <p><u>Second</u> grade teachers know 2nd grade math content and pedagogy.</p> <p><u>First</u> grade teachers know 1st grade math content and pedagogy.</p> <p><u>Kindergarten</u> teachers know kindergarten math content and pedagogy.</p> <p><i>All third kindergarten, first and second grade teachers inserviced on adopted math curriculum.</i></p>	<p>Second grade teachers know 2nd grade math content and pedagogy.</p> <p><u>Sixth</u> grade teachers know 6th grade math content and pedagogy.</p> <p><u>Fifth</u> grade teachers know 5th grade math content and pedagogy.</p> <p><i>All second fourth and fifth grade teachers inserviced on adopted math curriculum.</i></p>	<p>First grade teachers know 1st grade math content and pedagogy.</p> <p><u>Third</u> grade teachers know 3rd grade math content and pedagogy.</p> <p><u>Fourth</u> grade teachers know 4th grade math content and pedagogy. (The order of fourth and sixth grade trainings were reversed so fifth and sixth grade training and sixth to middle school articulation could occur.)</p> <p><i>All first third and sixth grade teachers inserviced on adopted math curriculum.</i></p>	<p>Kindergarten teachers know kindergarten math content and pedagogy.</p> <p><u>Second</u> grade teachers know 2nd grade math content and pedagogy.</p> <p><u>First</u> grade teachers know 1st grade math content and pedagogy.</p> <p><u>Kindergarten</u> teachers know kindergarten math content and pedagogy.</p> <p><i>All kindergarten first and second grade teachers inserviced on adopted math curriculum.</i></p>

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
	<p><i>New fourth and fifth grade teachers inserviced on adopted math curriculum.</i></p>	<p>—————></p> <p><i>New third and sixth grade teachers inserviced on adopted math curriculum.</i></p>	<p>—————></p> <p>—————></p> <p><i>New third Kindergarten, first, second, third, and sixth grade teachers inserviced on adopted math curriculum.</i></p>	<p>—————></p> <p>—————></p> <p>—————></p> <p><i>New Kindergarten, first, second, fourth and fifth grade teachers inserviced on adopted math curriculum.</i></p>	<p>—————></p> <p>—————></p> <p>—————></p> <p><i>New Kinder third, fourth, fifth and sixth grade teachers inserviced on adopted math curriculum.</i></p>
		<p><u><i>Train all elementary special education teachers, ESL tutors, and Indian Education tutors in pedagogy, curriculum content and GLEs.</i></u></p>	<p>—————></p>	<p>—————></p>	<p>—————></p>
<p>More teachers deliver the entire grade level curriculum using the appropriate pedagogy.</p>	<p>—————></p>	<p>—————></p>	<p>—————></p>	<p>—————></p>	<p>—————></p>
<p>Increase elementary teacher participation on math curriculum committee by 10% each year.</p>	<p>↑ 10% participation</p>	<p>↑ 10% participation</p>	<p>↑ 10% participation</p>	<p>↑ 10% participation</p>	<p>↑ 10% participation</p>

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
500 elementary teachers take part in book study groups to reflect on their own practices and to reduce math anxiety.	Continue book studies series.	→	→	→	→
Articulate math program for students between elementary and middle schools.		<u>ASD 40 question test results posted on the ARS system.</u>	→	→	→
Math – Middle School:					
<p>Review math curriculum grades 7 and 8 via curriculum cycle. Define and specify major content areas.</p> <p>Review, select grades 7 and 8 materials for recommendation to School Board (for adoption in curriculum cycle).</p> <p>Grades 7 and 8 math curriculum content guides complete.</p> <p>Math 7 and 8 curriculum and materials adopted by School Board. (May/June)</p>	<p><u>Implement curriculum adoption.</u></p> <p><u>Math 7 and 8 curriculum and materials adopted by School Board. (May/June)</u></p> <p><i>Train all seventh and eighth grade math teachers in curriculum content <u>and GLEs.</u></i></p> <p><i>Train all middle school special education collaborators, ESL tutors, and Indian Education tutors in curriculum content and <u>GLEs.</u></i></p>	<p><u>Implement curriculum adoption.</u></p> <p><u>Math 7 and 8 curriculum and materials adopted by School Board. (May/June)</u></p> <p><i>Train all seventh and eighth grade math teachers in pedagogy, curriculum content, and <u>GLEs.</u></i></p> <p><i>Train all middle school special education collaborators, ESL tutors, and Indian Education tutors in pedagogy, curriculum content and <u>GLEs.</u></i></p> <p>All seventh and eighth grade math teachers, special education collaborators, ESL tutors, and Indian Education tutors know curriculum content, and <u>GLEs</u> and use appropriate practices.</p>	<p><u>Implement curriculum adoption.</u></p> <p>→</p> <p>→</p> <p>→</p>	<p>→</p> <p>→</p> <p>→</p>	<p>→</p> <p>→</p> <p>→</p>

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
	All seventh and eighth grade math teachers know content and articulation 6, 7, and 8.	—————>	—————>	—————>	—————>
	<i>ASD curriculum pacing guides for Math 7 and Math 8 developed.</i>	<i>ASD curriculum pacing guides for Math 7 and Math 8 in place and in use.</i>	—————>	—————>	—————>
	<u><i>Train all middle school math teachers in use of ARS.</i></u>	<u><i>Review use of ARS and use it to identify student weaknesses, establish goals and guide instruction.</i></u>	—————>	—————>	—————>
	Increase numbers of students enrolled in 7 th or 8 th grade Algebra by 3% 5% each year.	↑ 3% 5% student enrollment	↑ 3% 5% student enrollment	↑ 3% 5% student enrollment	↑ 3% 5% student enrollment
	Higher overall math benchmark <u>SBA</u> scores, grade 8	↑ 3% 2.5% benchmark <u>SBA</u> scores	↑ 3% 2.5% benchmark <u>SBA</u> scores	↑ 3% 2.5% benchmark <u>SBA</u> scores	↑ 3% 2.5% benchmark <u>SBA</u> scores
	Higher overall math benchmark <u>SBA</u> scores, grade 7	↑ 3% 2.5% benchmark <u>SBA</u> scores	↑ 3% 2.5% benchmark <u>SBA</u> scores	↑ 3% 2.5% benchmark <u>SBA</u> scores	↑ 3% 2.5% benchmark <u>SBA</u> scores
		<u><i>Math support will be provided for all non-proficient 7th and 8th grade students.</i></u> <u><i>Teachers will use the ARS to identify areas of need for under-achieving students and use the info to guide their instruction.</i></u>	—————>	—————>	—————>
	<i>Review Pre-Algebra via curriculum cycle. Pre-algebra content defined, specified (Fall).</i>	<u><i>Implement curriculum & materials adoption. Review Pre-Algebra via curriculum cycle.</i></u>	<u><i>Implement curriculum & materials adoption.</i></u>		

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
		<i>Pre-algebra content defined, specified. (Fall)</i>			
	<i>Review/select Pre-Algebra materials for recommendation to School board for adoption via curriculum cycle.</i>	<i>Train all Pre-Algebra teachers in curriculum content. Review/select Pre-Algebra materials for recommendation to School board for adoption via curriculum cycle.</i>	<i>Train all Pre-Algebra teachers in curriculum content.</i>		
Computer-based Larson's Math remedial tutorial in place at all middle schools. <i>Train all middle school math teachers on use of Larson's Math software.</i>	→ <i>Train new middle school math teachers on use of Larson's Math software.</i>	→ →	→ →	→ →	→ →
	<u>Pre-Algebra curriculum materials adopted by School Board (May/June)</u>	<u>Pre-Algebra curriculum materials adopted by School Board (May/June)</u>	All Pre-Algebra middle school teachers know and use appropriate practices. <u>All Pre-Algebra middle school teachers know content and articulation.</u>	All Pre-Algebra middle school teachers know and use appropriate practices.	→
		<i>Develop ASD curriculum pacing guides for middle school Pre-Algebra.</i>	Pre-Algebra pacing guides in place, in use. <i>Develop ASD curriculum pacing guides for middle school Pre-Algebra.</i>	Pre-Algebra pacing guides in place, in use.	→
<u>Articulate math program for students between elementary and middle schools.</u>		<i>Orleans Hanna Prognosis test given to all middle school Math 8 and PreAlgebra students. OH test results posted on the ARS system.</i>	→	→	→

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
Math: High School:					
Complete high school Algebra I, II, Geometry, and Pre-Calculus curriculum articulation and pacing guides.	Curriculum pacing guides in place and in use for Algebra I, II, Geometry, and Pre-Calculus.		<i>Renew curriculum review and adoption cycle for high school Algebra I, II, and Geometry.</i>	→	→
	Delivery of Algebra I, II and Geometry articulated so that students all receive critical material.	→	→	→	→
	<i>Develop and complete Algebra A, Algebra B, Algebra Survey, and Informal Geometry content /pacing guides.</i>	Pacing guides in place, in use. <i>Develop and complete Algebra A, Algebra B, Algebra Survey, and Informal Geometry content /pacing guides.</i>			
	<i>Review Pre-Algebra via curriculum cycle. Pre-Algebra content defined, specified. (Fall)</i> <i>Review/select Pre-Algebra materials for recommendation to School board for adoption via curriculum cycle.</i> Pre-Algebra curriculum materials adopted by School Board May/June).	<i>Implement curriculum and materials adoption. Review Pre-Algebra via curriculum cycle. Pre-Algebra content defined, specified. (Fall)</i> <i>Train all Pre-Algebra teachers in curriculum.</i> <i>Review/select Pre-Algebra materials for recommendation to School board for adoption via curriculum cycle.</i> All Pre-Algebra high school teachers know content and articulation.	<i>Implement curriculum and materials adoption.</i> <i>Train all Pre-Algebra teachers in curriculum content.</i> All Pre-Algebra high school teachers know and use appropriate practices.	All Pre-Algebra high school teachers know and use appropriate practices.	→

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
		<p><u>Pre-Algebra curriculum materials adopted by School Board May/June).</u></p> <p><i>Develop ASD curriculum pacing guides for high school Pre-Algebra.</i></p>	<p><u>All Pre-Algebra high school teachers know content and articulation.</u></p> <p><i>Pre-Algebra pacing guides in place, in use. Develop ASD curriculum pacing guides for high school Pre-Algebra.</i></p>	<p><u>Pre-Algebra pacing guides in place, in use.</u></p>	<p>→</p>
	<p><u>Integrated Math restructured using Alaska individual student data and Alaska standards and ARS.</u></p>	<p><u>Integrated Math teachers trained.</u></p> <p><u>Integrated Math teachers implement new methodology.</u></p> <p><u>Integrated Math restructured using Alaska individual student data and Alaska standards and ARS.</u></p>	<p><u>Integrated Math teachers trained.</u></p> <p><u>Integrated Math teachers implement new methodology.</u></p>	<p>→</p>	<p>→</p>
<p><i>Review Pre-Calculus via ASD curriculum cycle.</i></p> <p><i>Define and specify content (Fall).</i></p> <p><i>Review and recommend materials for adoption by School Board.</i></p> <p><u>Pre-Calculus materials adopted by School Board (May/June).</u></p>	<p><u>Review and recommend materials for adoption by School Board.</u></p> <p><u>Pre-Calculus and AP Calculus materials adopted by School Board (May/June).</u></p> <p><i>Implement Pre-Calculus curriculum adoption.</i></p> <p><i>Train all Pre-Calculus teachers.</i></p> <p><i>Develop Pre-Calculus pacing guides.</i></p>	<p><u>Pre-Calculus curriculum and pacing guides in use.</u></p> <p><i>Implement Pre-Calculus curriculum adoption.</i></p> <p><i>Train all Pre-Calculus teachers.</i></p> <p><i>Develop Pre-Calculus pacing guides.</i></p>	<p><u>Pre-Calculus curriculum and pacing guides in use.</u></p>		

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
Analyze content of AP Calculus for gaps; identify specific areas to strengthen in pre-AP courses.	→	→	→	→	→
	<u>Renew curriculum review and adoption cycle for AP Calculus.</u>	<u>Renew curriculum review and adoption cycle for AP Calculus and AP Statistics. Develop Curriculum Guide for AP Statistics.</u>	<u>All high schools use the Curriculum Guide for AP Statistics.</u>		
Goal 2: Supportive and Effective Learning Environment					
Literacy (reading and writing) incorporated into K-8 math curriculum guides.					
<i>Fourth and fifth grade teachers learn and apply reading and writing to their instructional practice.</i>	<i>Sixth and third grade teachers learn and apply reading and writing to their instructional practice.</i>	<i>Third Kindergarten, first and second grade teachers learn and apply reading and writing to their instructional practice.</i>	<i>Second Kindergarten – sixth grade teachers learn and apply reading and writing strategies to their instructional practice.</i>	→	→
<i>All elementary schools receive a collection of trade books that link math and literature.</i>	<i>Encourage use of literature links to math.</i>	→	→	→	→
Literacy incorporated into grades 7 and 8 math, with Math literature in recommendations for materials adoption.	<i>Seventh and eighth grade math teachers learn and apply reading and writing to their instructional practice.</i>	→	→	→	→
Technology applications incorporated into K-8 curriculum guides.					
<i>Fourth and fifth grade teachers learn and use technology applications in their instructional practice.</i>	<i>Sixth and third grade teachers learn and use technology applications in their instructional practice.</i>	<i>Third Kindergarten, first and second grade teachers learn and use technology applications in their instructional practice.</i>	<i>Second Kindergarten - sixth grade teachers learn and use technology applications in their instructional practice.</i>	<i>First grade teachers learn and use technology applications in their instructional practice.</i>	<i>Kindergarten teachers learn and use technology applications in their instructional practice.</i>

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
		<p><i>Seventh and eighth grade math teachers learn and use technology applications in their instructional practice.</i></p> <p><i>Teachers will use the ARS to identify areas of need for under-achieving students and use the info to guide their instruction.</i></p>	→	→	→
<u>Larson Math used in Middle schools for resource and remediation.</u>	<u>Larson Math focus expanded to include GLE practice.</u>	→	→	→	→
	<p><u>Larson Math used in all Title I schools with focus on GLE's.</u></p> <p><u>Support for elementary schools that purchase Larson Math.</u></p>	→	→	→	→
	<p>Technology applications incorporated into Pre-Algebra, Algebra courses, and high school math courses as part of curriculum renewal cycle.</p>	→	→	→	→
<p>Advanced Placement (AP) Math courses provide the nationally-defined course content in every enrollment area.</p>					
<p><i>AP Math teachers receive training by certified national or qualified instructors.</i></p>	→	→	→	→	→
<p><u>Develop curriculum guide for AP Calculus.</u></p>	<p><u>Curriculum guide for AP Calculus used in all high schools.</u></p>	→	→	→	→

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
Proportion of under-represented groups in AP Math courses increases each year.	↑ 3% under-represented groups	↑ 3% under-represented groups	↑ 3% under-represented groups	↑ 3% under-represented groups	↑ 3% under-represented groups
Teachers understand K-12 continuum of mathematics and apply this knowledge to their grade level teaching.	→	→	→	→	→
Goal 3: Public Accountability					
<i>Fourth and fifth grade teachers learn how to analyze and use student data to guide instruction.</i>	<i>Sixth and third grade teachers learn how to analyze and use student data to guide instruction.</i>	<i>Third Kindergarten, first and second grade teachers learn how to analyze and use student data to guide instruction.</i>	<i>Second All first – sixth grade teachers learn how to analyze and use student data to guide instruction.</i>	<i>First grade teachers learn how to analyze and use student data to guide instruction.</i>	<i>Kindergarten teachers learn how to analyze and use student data to guide instruction.</i>
	<i>Integrated Math teachers learn how to analyze and use student data to individualize instruction.</i>	<i>Integrated Math teachers learn how to analyze and use student data to individualize instruction.</i>	→	→	→
Increase community and parent awareness of, and participation in, Math programs.	Increase parent participation in math curriculum committee until at least one high school, one middle school, and 2 elementary school parents participate.	→	→	→	→
<i>Family Math nights in schools, K-8.</i>	→	→	→	→	→
<i>Community members on curriculum committees.</i>	→	→	→	→	→

Year 1 FY 2003 - 2004	Year 2 FY 2004 - 2005	Year 3 FY 2005 - 2006	Year 4 FY 2006 - 2007	Year 5 FY 2007 - 2008	Year 6 FY 2008 - 2009
<i>Continue Middle School Girls' Conference and other events.</i>	→	→	→	→	→
<i>Sponsor Alaska Math Consortium Basic Institute.</i>	→	→	→	→	→
<i><u>Elementary Math Derby math competition for grades 5 & 6.</u></i>	→	→	→	→	→