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# **OSD K-12 MATH**

**OLYMPIA SCHOOL DISTRICT**  

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**BOARD OF DIRECTORS MEETING**  
February 12, 2007

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# CURRENT MATH GRADUATION REQUIREMENTS

- Two years of high school math – no specific math course or level is required
- OSD requirements currently match state requirements

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# STATE BOARD OF EDUCATION MATH GRADUATION REQUIREMENTS

- Two years of high school math that aligns with 9<sup>th</sup> and 10<sup>th</sup> grade standards
- State Board intends to adopt in March

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# COLLEGE READINESS

- Four Year Colleges Minimum Requirements
  - three years of high school math with a minimum of algebra II

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# WHY ARE KIDS FAILING AT MATH?

- Teachers without strong content knowledge and pedagogy
- Ineffective materials and resources
- Kids find math boring or too difficult to make sense of
- Lack of opportunity to learn math
- Students don't value mathematics

(Dr. Phillip Daro, University of California)

# STUDENTS CURRENTLY NOT AT STANDARD

10 <sup>TH</sup> GRADE	246 STUDENTS (31.2%)
9 <sup>TH</sup> GRADE-based on 05'	227 STUDENTS (37%)
<b>8<sup>TH</sup> GRADE</b>	<b>225 STUDENTS (35.1%)</b>
<b>7<sup>TH</sup> GRADE</b>	<b>211 STUDENTS (35.5%)</b>
<b>6<sup>TH</sup> GRADE</b>	<b>206 STUDENTS (36.5%)</b>
5 <sup>TH</sup> GRADE	171 STUDENTS (29.2%)
4 <sup>TH</sup> GRADE	150 STUDENTS (25.7%)
3 <sup>RD</sup> GRADE	137 STUDENTS (23.6%)

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# INSTRUCTIONAL EFFECTIVENESS

- The teacher's content knowledge and instructional methods are the most important elements to student learning.
  - Knowing the content
  - Using on-going assessments including pre-test and post-test
    - Checking for understanding
    - Using data and determining what needs re-teaching
  - Teaching conceptual understanding at a deep level
  - Ensuring students obtain basic skills and math fluency
  - Ensuring students develop problem solving skills, critical thinking skills, and math reasoning

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# K-5 RESOURCES and SUPPORT

- K-5 Curriculum Guide
  - Math skills and concepts for each grade
  - Pacing guide
  - Classroom based-assessments
  - Vocabulary lists
  - Supplementary materials
  
- Manipulatives
- Diagnostic Assessments and Intervention Strategies
- Resources books for teachers
- Software/Technology
- Extended learning

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# K-5 Professional Development

- Developing Mathematical Ideas (DMI) K-6
- DMI Facilitation Training (Trainer of Trainers)
- Professional Learning Communities
- Trailblazers
- Common Classroom Based Assessments
- Software training

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# MIDDLE SCHOOL RESOURCES and SUPPORT

- **Grades 6-8 Curriculum Guide**
  - Math skills and concepts for each grade
  - Pacing Guide
  - Classroom based-assessments
  - Vocabulary lists
  - Supplemental materials
- **Double Dip / Extra Time / Tutoring**
- **Diagnostic Assessments and Intervention Strategies**

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# MIDDLE SCHOOL PROFESSIONAL DEVELOPMENT

- Developing Mathematical Ideas (DMI) Grade 6
- DMI Facilitation Training (Trainer of Trainers)
- Teachers Development Group – Mathematics Conference
- Professional Learning Communities
- Summer or early Fall In-service on new instructional materials
- Consultation training/support on-going every 4-6 weeks
- Software Training

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# HIGH SCHOOL RESOURCES and SUPPORT

- Common Textbooks - Algebra, Geometry, and Algebra II
- Classroom based assessments
- Software/Technology
  - Cognitive Tutor
  - Compass Learning Math
  - APEX Math
- Double Dip / Extra Time / Tutoring

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# HIGH SCHOOL PROFESSIONAL DEVELOPMENT

- Professional Learning Communities subject focused
  - Classroom based assessments
  - Level 1 strategies and practices
- Consultation training on an on-going basis
- Teachers Development Group – Math Conference
- Software training

# PARENT RESOURCES and SUPPORT

- Parent Guides
  - Concept review
  - Vocabulary lists
  - Activity descriptions
  - Chapter summaries
- Parent Math Nights
- Outreach to community groups
- On-line resources
- Access to K-12 Teaching and Learning Staff