Aligning Harrison’s Mathematics Program to the Common Core

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Presentation Overview

- Aligning Harrison’s Program to the Common Core Standards
- Historical Context
- Program Evaluation Process
- Why *Math in Focus*?
- Implementation Plan
Common Core Math Standards
Integrated Algebra – 8th Grade

<table>
<thead>
<tr>
<th>Year</th>
<th>% Mastery</th>
<th>% Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>54.5%</td>
<td>41.3%</td>
</tr>
<tr>
<td>2010-11</td>
<td>53.2%</td>
<td>44.4%</td>
</tr>
<tr>
<td>2011-12</td>
<td>61.7%</td>
<td>36.9%</td>
</tr>
<tr>
<td>2012-13</td>
<td>52.6%</td>
<td>45.9%</td>
</tr>
<tr>
<td>2013-14</td>
<td>52.6%</td>
<td>46.2%</td>
</tr>
</tbody>
</table>

99% Proficiency
53% Mastery
Geometry

Proficiency and Mastery: 98% and 62%.
Largest number of students scoring mastery: 126.
Program Evaluation Process...

Analysis > Priorities > Action Steps
Elementary Math Timeline

Pre Common Core
• 2003 – 2011

Post Common Core
• 2011 - Present
Elementary Math: An Historical Context

2004: Harrison Adopts Investigations 1st Ed.

2006: Updates to Investigations 2nd Ed.

2008: Supplements: Mastering Math Facts

2011: NYS Adopts CCLS
Math Audits

• 2005: Harrison HS
• 2006: LMK
• 2007: Elementary
• 2009: K-12
• 2010: Tri-State Consortium
Commendations from Elementary Math Audit

✓ Teachers view and behave toward students with a deep respect for them as thinking human beings.

✓ Teachers continuously and pervasively bring the mathematical thinking of students to the center of the classroom in a safe and caring environment.

✓ Teachers hold students accountable for their mathematical thinking and consistently probe for students' mathematical articulation and explanation, allowing multiple, appropriate mathematical representations and strategies.
Elementary Math Timeline

Pre Common Core
- 2003 – 2011

Post Common Core
- 2011 - Present
Current Elementary Math Program: Investigations in Number Data and Space

- Created by Technical Education Research Centers (TERC) in Cambridge, Massachusetts
- Funded by National Science Foundation
Components of the Elementary Math Curriculum

- Investigations In Number, Data, and Space
  - Differentiation Materials
    - Math Olympiads
    - Exemplars
    - Context For Learning Series
  - Supporting Materials
    - Mastering Math Facts
    - Teacher Created Materials
Common Core Implementation Timeline

2011
NYS Adopts CCLS

2011/12 Design Team

Curriculum projects & PD

2013 First Admin of NYS Exams

Curriculum projects & PD

2014 Second Admin of NYS Exams
Guiding Questions

How is the mathematics developed?

How are games utilized?

What are the supports for teachers?

How is technology utilized?

What are the supports for differentiation?
Elementary Design Team: Program Analysis and Recommendations

- Primary Math
- Math In Focus
- Go Math!
- Envisions
- EngageNY Modules
- Investigations
Math in Focus

Math in Focus
Singapore Math
by Marshall Cavendish

Math in Focus
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by Marshall Cavendish

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by Marshall Cavendish

Math in Focus
Singapore Math
by Marshall Cavendish
Math In Focus Components
Math In Focus: Strengths

- Rigorous
- Differentiation Resources:
- Multiple Problem Solving and Computational Strategies are developed
- Pictorial, Concrete, Abstract
- Games
Number Bonds
<table>
<thead>
<tr>
<th>Date</th>
<th>Number Bond</th>
<th>Coins</th>
<th>Total Value</th>
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<tr>
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<td>20¢</td>
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<td>1-4-14</td>
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<td>1-5-14</td>
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<tr>
<td>1-11-14</td>
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<tr>
<td>1-12-14</td>
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<td><img src="image" alt="Coins" /></td>
<td>10¢</td>
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</table>
Number Bonds
Number Bonds

12

6
Bar Models

(a) Type 1: part-whole model (addition and subtraction)
Bar Models

70 + 30 = 100
Bar Models

7

Boys

?

Girls

21
**Example:** I earned three times as much money this week as I did last week. This week I earned $150. How much more did I earn this week than last week?

<table>
<thead>
<tr>
<th>This week</th>
<th>150</th>
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<tbody>
<tr>
<td>Last week</td>
<td></td>
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</tbody>
</table>

3 units = 150  
1 unit = 50  
150 - 50 = 100  
I earned $100 more this week than last week
# Math In Focus Districts

<table>
<thead>
<tr>
<th>Districts</th>
<th>Previous Programs</th>
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<tbody>
<tr>
<td>Edgemont</td>
<td>Everyday Math</td>
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<tr>
<td>Pelham</td>
<td>Investigations</td>
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<tr>
<td>Rye Neck</td>
<td>Unknown</td>
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<tr>
<td>Pleasantville</td>
<td>Teacher Created</td>
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<tr>
<td>Bedford</td>
<td>Trail Blazers</td>
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<tr>
<td>Manhasset</td>
<td>Everyday Math</td>
</tr>
<tr>
<td>Jericho</td>
<td>Unknown</td>
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<tr>
<td>Port Washington</td>
<td>Investigations</td>
</tr>
<tr>
<td>North Shore</td>
<td>Everyday Math</td>
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<tr>
<td>Greenwich CT</td>
<td>Everyday Math</td>
</tr>
<tr>
<td>Weston CT</td>
<td>Everyday Math</td>
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</tbody>
</table>
Implementation Plan

• 2014/2015
  – Grades 4 and 5 receive professional development and implement units on Measurement and Geometry
  – Create scope and sequence for 2015/2016 school year

• 2015/2016 school year full implementation