PROPOSED INTEGRATED MATHEMATICS TEXTBOOK ADOPTION

Information Report No. 6
Date: May 15, 2018

Winfred Roberson, Superintendent
Dr. Kelly King, Assistant Superintendent, Educational Services
Local Control Accountability Plan (LCAP) Priorities

1. Maximize Student Achievement
   1-1: Improve academic achievement for all students.
   1-2: Ensure all students are college and/or career ready upon graduation.

2. Create a Culture of Learning
   2-1: Support the social, emotional, and physical needs of all students.
   2-2: Provide services and conditions that support student learning.
   2-3: Provide teachers with tools and training to implement State academic standards.
   2-4: Provide students with access to support interventions and instructional technology for learning.

3. Increase Engagement
   3-1: Create a positive environment and opportunities for students to connect with their school and community.
   3-2: Engage families and community to support student learning.
Background

• Information Items have been presented to the Board of Education on this topic on April 17 and May 1, 2018
• Board members requested more information about the administrative regulations regarding curriculum adoption and more information about College Preparatory Mathematics (CPM)
Administrative Regulation, AR 6141

Recommendations for curriculum should be based on:

- Analysis of effectiveness of the existing District curriculum
- Alignment of the proposed curriculum with expectations established by the Board and the State Board of Education
- Evidence of proven effectiveness of the proposed curriculum in raising student achievement
- Applicability and accessibility of the curriculum to all students
- The estimated cost to purchase, adapt, and/or develop the curriculum
- Resources required to implement the curriculum
- The extent to which instructional materials meet criteria established by law and the District
- Any potential impact on other parts of the educational program
Administrative Regulation, AR 6141

Procedures for the review and selection of instructional materials/textbooks:
1. Curriculum Study Committee reviews eligible instructional materials/textbooks
2. Committee representatives share selection criteria with school staff
3. Staff reviews proposed instructional materials/textbooks
4. Committee representatives solicit feedback from school sites, leadership teams, parent advisory groups and public review
5. Each secondary school is to have an opportunity to be represented on the committee with each vote based on the number of sections offered at that site
6. Curriculum Study Committee recommends instructional materials/textbook adoption to Secondary Education Council (secondary principals)
7. Secondary Education Council recommends instructional materials/textbook adoption to the Superintendent
8. Instructional materials/textbook adoption is approved by Board of Education
## Student Pre- and Post-Test Comparisons

<table>
<thead>
<tr>
<th></th>
<th>% of Change CPM</th>
<th>% of Change HMH</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS Integrated I</td>
<td>63%</td>
<td>48%</td>
</tr>
</tbody>
</table>

## Teacher Analysis of Programs (Average Results on a Five Point Scale)

<table>
<thead>
<tr>
<th></th>
<th>Alignment to Content Standards</th>
<th>Alignment to SMPs</th>
<th>Planning, Support &amp; Materials</th>
<th>% of Teachers Responding to Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMH</td>
<td>3.6</td>
<td>3.3</td>
<td>3.2</td>
<td>73%</td>
</tr>
<tr>
<td>CPM</td>
<td>3.9</td>
<td>3.7</td>
<td>3.4</td>
<td>62%</td>
</tr>
</tbody>
</table>
## Pilot Teacher Votes

<table>
<thead>
<tr>
<th></th>
<th>Integrated I-III</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPM</td>
<td>18</td>
</tr>
<tr>
<td>HMH</td>
<td>19</td>
</tr>
</tbody>
</table>
Pros and Cons of Programs

**CPM**

- **Pros**
  - Student engagement
  - Strongly aligned to CA State Standards & SMPs
  - Varying DOK levels
  - Spiraling of concepts

- **Cons**
  - Group work challenging
  - Challenge to assess mastery
  - Not enough practice problems

**HMH**

- **Pros**
  - Teacher directed, flexibility
  - Online and teacher resources
  - More practice problems
  - Traditional arrangement of concepts/standards

- **Cons**
  - Questions about alignment to standards
  - Lack problems at varying DOK levels
  - Traditional Math program
Recommendations from Secondary Education Council (Secondary Principals)

<table>
<thead>
<tr>
<th></th>
<th>Integrated I-III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Middle School Principals</td>
</tr>
<tr>
<td>CPM</td>
<td>2</td>
</tr>
<tr>
<td>HMH</td>
<td>1</td>
</tr>
</tbody>
</table>
Parent Feedback

• Parent electronic survey
  o April 19 – 24

73.40%

HMH

26.60%

CPM
Research Evaluating Both Programs (EdReports.org)

<table>
<thead>
<tr>
<th>Title (2)</th>
<th>Focus &amp; Coherence</th>
<th>Rigor &amp; Math Practices</th>
<th>Usability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPM Integrated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPM Educational Program (CPM)</td>
<td>15/18</td>
<td>16/16</td>
<td>33/36</td>
</tr>
<tr>
<td>Show Report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMH Integrated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Houghton Mifflin Harcourt</td>
<td>9/18</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Show Report</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Comparative Costs

<table>
<thead>
<tr>
<th></th>
<th>Integrated I-III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPM</strong></td>
<td>$85/student, Teacher Editions, Student textbooks, manipulatives, professional</td>
</tr>
<tr>
<td></td>
<td>development (3 years), online resources</td>
</tr>
<tr>
<td><strong>HMH</strong></td>
<td>$125/student, Teacher Editions, Student Textbooks, Skills workbooks, online</td>
</tr>
<tr>
<td></td>
<td>resources</td>
</tr>
</tbody>
</table>
Options Considered for Curriculum Adoption

• Single adoption of HMH with supplementary materials
• Single adoption of CPM with supplementary materials

• Either program would need to be supplemented to meet student and teacher needs.
Superintendent Recommendation/Next Steps

- Single adoption
- Three-year adoption (2018/19, 2019/20, 2020/21)
- CPM adopted for all Integrated I, II, and III courses
- Committee of math teachers brought together to identify supplementary materials
- Comprehensive professional development over a period of three years
- Series of parent/guardian information meetings at each high school – focus on how to help students at home
Questions?