

DATE: June 11, 2014

TO: Board of Education

FROM: Dr. Gary Yee, Acting Superintendent Maria Santos, Deputy Superintendent of Instruction, Leadership & Equity-in-Action Kyla Johnson Trammel, Associate Superintendent, Leadership, Curriculum & Instruction

SUBJECT: APPROVAL OF PURCHASE OF HOUGHTON MIFFLIN HARCOURT'S MATH EXPRESSIONS TEXTBOOK K-5

Action Requested

Approval to purchase Houghton Mifflin Harcourt's *Math Expressions* textbook series, K-5, for a period of six years, beginning 2014-2015, in an amount not to exceed \$3.2 million over five years, with the initial payment of \$450,000 payable in FY 2014-15.

Background

The *enVision Math* textbooks currently in elementary classrooms are outdated and based on the previous California State Standards. As teachers shift their instructional practice to implement the Common Core State Standards for Mathematics, our district needs strong curricular resources developed to address new standards to provide students with the mathematics content and learning experiences they need to develop as mathematical thinkers, sense-makers, communicators and problem solvers. The OUSD Core Curriculum Guide developed starting in 2011 provides a strong backbone for a district mathematics curriculum, but it was designed to have Key Learning Experiences with coherent Lesson Series, and needs a core text to be complete as a viable and effective curriculum for K-5 students.

Discussion

District math leaders through Leadership, Curriculum, and Instruction, (LCI), have concluded a 10-month process of instructional materials review and classroom-based analysis with extensive participation from OUSD teachers and principals, as well as members of the community.

Mathematics Instructional Materials Selection Committee

Sixteen elementary teachers comprised the Mathematics Instructional Materials Selection Committee. The committee spent three months examining five mathematics instructional programs. Seventy teachers were involved in piloting for a period of four to seven weeks between October and March. Teachers piloted two mathematics programs in order to make meaningful comparisons.

The adoption process was based on the Common Core State Standards Mathematics Curriculum Materials Analysis Tools developed by a national team of educators with expertise in mathematics, mathematics education, and school administration with support from the Council of Chief State School Officers and National Council of Supervisors of Mathematics. There are three analysis tools that provide detailed information about the extent to which curriculum materials align with and support the implementation of CCSS-M.

- o Tool 1: Mathematics Content Trajectories
- o Tool 2: Mathematical Practices
- Tool 3: Important considerations complimentary to the standards like equity, assessment and technology

File ID Number: <u>14-07</u> Introduction Date: <u>6/11/14</u> Enactment Number: <u>114-C</u>

Mathematics Pilot and Adoption Timeline

In July 2013, LCI math leaders developed a Mathematics Pilot and Adoption Timeline, (Appendix A). In August 2013, ten elementary schools were invited to participate in the piloting of math materials in order to inform the adoption process and as a strategy to move teachers and students to CCSS-M a year earlier than the rest of the district. Teachers from six schools chose to participate in this math pilot. These teachers started their year by using OUSD Math Core Curriculum units aligned to CCSS-M and continued to use these units throughout the year, only to be replaced by pilot curriculum twice during the year.

In September 2013, teachers were invited to apply to serve on the Mathematics Instructional Materials Selection (MIMS) Committee, (see Appendix B). The MIMS committee was formed and the adoption work launched at the first meeting held on October 2, 2013, (see Appendix C). Due to the constraints of time, in October 2013, the Elementary Math Department recommended the first curriculum to be piloted: Math Trailblazers. The MIMS committee's role was to select the second curriculum that would be piloted. The MIMS committee used the *Common Core State Standards Mathematics Curriculum Materials Analysis Tools* to review five K-5 mathematics instructional programs, (see Appendix D).

Meanwhile pilot teachers from five sites began implementation of the first curriculum: *Math Trailblazers*. Seven of the teachers from the MIMS committee also participated in the pilot, (see Appendix E). After numerous hours of examination and discussion, the MIMS committee reached a decision on December 11, 2013 about the second curriculum to be piloted: *Math Expressions*.

In February 2014, pilot teachers began implementation of the Math Expressions. After each curriculum pilot teachers were asked to fill out an evaluation of the program, (see Appendix F). Principals also filled out an evaluation, (see Appendix G).

On March 26, 2014, the MIMS committee met to review feedback from teachers, parents, and administrators at pilot sites. The committee made their "top choice" selection with a unanimous recommendation for district adoption of *Math Expressions*. A public engagement was held April 1, 2014 to share and discuss the recommendation, (see Appendix H). Subsequent discussions took place with principals and teacher leaders. Support for the MIMS committee's recommendation has been widespread.

Contract with Houghton Mifflin Harcourt

Subject to approval by the Board of Education, the District has committed to the purchase of *Math Expressions* mathematics instructional materials over the course of six years for a total cost not to exceed \$3.2 million. After an initial payment in FY15 of \$450,000, the remaining amount due--based on an annual per pupil assessment--will be paid in 5 yearly installments at 0% interest. The purchase order for this payment will be received by July 15, 2014, with the payment to follow within 30 days. This agreement is contingent upon Board approval on June 11, 2014. The Superintendent seeks authorization to enter into the Agreement with Houghton Mifflin Harcourt, approved as to form by the General Counsel and approved by the Board at the Board meeting on August 20, 2014.

Recommendation

Adoption and approval to purchase Houghton Mifflin Harcourt's *Math Expressions* textbook series, K-5, for a period of six years, beginning 2014-2015, in an amount not to exceed \$3.2 million over five years, with the initial payment of \$450,000 payable in FY 2014-15.

Fiscal Impact

\$450,000 payable in FY 2014-15; remaining \$2.75 Million over four

Attachment

Attachment A: Recommendations for Mathematics Instructional Materials Adoption for K-5

Appendices

- Appendix A: Mathematics Pilot and Adoption Timeline
- Appendix B: Mathematics Instructional Materials Selection Committee Application
- Appendix C: Mathematics Instructional Materials Selection Committee Members
- Appendix D: Mathematics Instructional Programs Reviewed & Piloted
- Appendix E: Mathematics Pilot Teachers Roster
- Appendix F: Summary of Evaluations from Mathematics Pilot Teachers
- Appendix G: Summary of Evaluations from Mathematics Pilot Principals
- Appendix H: Community: Parent, Teacher and Principal Feedback Form
- Appendix I: Cost of Mathematics Instructional Materials

ATTACHMENT A

Recommendation for Mathematics Instructional Materials Adoption for K-5

After seven months of careful study, the Mathematics Instructional Materials Selection Committee makes the unanimous recommendation for full adoption of Houghton Mifflin Harcourt's *Math Expressions* to complete OUSD's Core Curriculum for Mathematics, K-5.

Program Title	Publisher	Voting Results
Math Expressions	Houghton Mifflin Harcourt	44 out of 53 Pilot Teachers16 out of 16 MIMS Committee Members

	Strengths	Main Concern	Solution
0	"Math Talk" – provides	Lack of rich, deep, open-ended	Use OUSD Core Curriculum
	opportunities to discuss the	mathematical tasks, including	math tasks (Key Learning
	mathematics	extended (multi-day) tasks	Experiences) in conjunction with
0	Puzzled Penguin – Error		this math text
	analysis promotes academic		
	discourse		
0	Student activities develop all		
	8 of the Common Core		
	Mathematical Practices		
0	A lot of word problems –		
	promotes problem solving		
	skills		
0	Models multiple ways to		
	solve problems		
0	Background knowledge		
	provided to teachers to build		
	content understanding		
0	Leveled activity cards		
	supports differentiation		

APPENDIX A

Mathematics Pilot & Adoption Timeline

Dates	Event / Task	
August 2013	 August 22: Buy Back Day – 10 Schools participate and teachers are asked to implement 1 OUSD Core Curriculum Unit. 	
September 2013	• 3 entire sites (Montclair, Munck and Glenview) and staff from 3 other sites (TCN, Cleveland, Esperanza) participate in the Math Curriculum Pilot	
October-November 2013	 October 11: Buy Back Day – Curriculum Pilot Schools receive training a materials on 1st pilot, Math Trailblazers selected by Math Team. Curriculum Pilot Schools implement one unit from Math Trailblazers, the continue using OUSD Core Curriculum units Mathematics Instructional Materials Selection (MIMS) Committee convenes with 16 K-5 teachers Committee reviews curriculum from 5 publishers: Math Trailblazers enVision CC, Go Math, Math Expressions, Everyday Mathematics 	
December 2013	 Pilot Teachers give feedback on Math Trailblazers MIMS committee decides 2nd curriculum that will be piloted: Math Expressions 	
Jan 2014	 January 31: Buy Back Day – Curriculum Pilot Teachers receive training and materials on 2nd pilot curriculum, Math Expressions 	
 Curriculum Pilot Teachers implement one unit from 2nd pilot curriculation then continue using OUSD Core Curriculum units by March 21 – Pilot Teachers give feedback on 2nd pilot curriculum March 25 – Parents give feedback on both curriculum programs March 26 – MIMS Committee reviews feedback from pilot teachers about both curriculum programs makes final evaluations to determine the "top choice" to recommited for adoption by OUSD 		
April 2014	 Math Team hosts community engagement for parents, teachers and principals to hear MIMS Committee recommendation and explore MX curriculum Math Team. develops plan for roll-out of new adopted math curriculum 	
May 2014	 Recommendation made to the OUSD Board for curriculum adoption Math Team. develops a plan for revisions of OUSD Core Curriculum to reflect new adopted math curriculum 	
June 2014	 New adopted math curriculum is delivered to all sites before school ends Core Curriculum Production Team (CCPT) convenes to revise OUSD Core Curriculum to reflect new adopted math curriculum 	
August 2014	Math Team. provides professional learning to teachers for OUSD Core Curriculum and new adopted math curriculum	

APPENDIX B

Elementary Mathematics Instructional Selection Committee Application



Community Schools, Thriving Students

LEADERSHIP, CURRICULUM & INSTRUCTION (LCI)

TO:	K-5 Principals Math Teacher Leaders
FROM:	Phil Tucher, Mathematics Manager Robin Lovell, Elementary Mathematics Coordinator Celia Pascual, Elementary Mathematics Specialist
RE: DATE:	Recruitment of Mathematics Instructional Materials Selection Committee September 20, 2014

Elementary Math Instructional Materials Adoption

With the adoption of Common Core State Standards in Mathematics, there is a need to provide instructional materials to teachers and students that align with the new standards. The LCI Mathematics Department is launching an Elementary textbook adoption process to identify and select mathematics textbooks/instructional materials for Kindergarten through Grade 5 by May 2014. The first key step of this process is to assemble a Selection Committee that will play a critical role in selecting instructional materials that will promote powerful teaching and learning aligned to Common Core State Standards for all Oakland students and put into classroom use beginning in 2014-2015, pending funding.

By May 2014, the Committee will accomplish the following:

- · Identify instructional materials that will be piloted
- Review teacher feedback of the piloted instructional materials
- Share recommendation and get feedback from the Principal Advisory Council (PAC) and District Leadership
- Finalize the recommendation based on the feedback
- Bring the recommendation to the OUSD Board of Education

Curricula the Committee will review:

- enVision Math California Common Core, Pearson Scott Foresman & Prentice Hall
- Trailblazers, Kendall Hunt
- Everyday Mathematics, McGraw Hill School Educations
- Common Core System of Courses, Pearson Scott Foresman & Prentice Hall
- 1-2 additional programs TBD

Who should apply to the Selection Committee?

- Teachers who are knowledgeable about Common Core content standards and practice standards
- Teachers who understand the curricular and instructional shifts required by Common Core standards
- Teachers with sufficient mathematics teaching experience (3+ years) to be able to coherently
 address the needs of both students and teachers for several grade levels in a thoughtful and
 articulated way
- Teachers who have a passion for the teaching and learning of mathematics
- Teachers with strong backgrounds in special needs/special education, EL/ELD, GATE/advanced learners, newcomer programs, bilingual/dual immersion programs, alternative education or intervention
- Teachers who regularly integrate instructional technology into their teaching practices
- Teachers who can make a 6-month commitment (October–March) to serve on the Selection Committee

APPENDIX B



Community Schools, Thriving Students

LEADERSHIP, CURRICULUM & INSTRUCTION (LCI)

Distribution of Application:

Please distribute the enclosed application form to any teacher who is interested and who you believe would serve both students and teachers well as a member of the Mathematics Instructional Materials Selection Committee. We encourage the participation of individuals who can contribute their perspective in order to provide a broad-based representation of the entire Oakland Unified School District. Our goal is to have at least 3 teachers for each grade level. Teachers will be paid a stipend at the \$30.12/hr rate. A principals' sign-off is required on each teacher's application. Applications are due Friday, September 27 at 4pm. Teachers will be notified by email about their participation on Monday, September 30.

Please direct all inquires to Celia Pascual: 510-366-8745 or celia.pascual@ousd.k12.ca.us

2013-2014 Mathematics Selection Committee Sessions 4-7 PM: Wednesday Evening Sessions

October 2, 2013 October 9, 2013 October 23, 2013 November 6, 2013 November 13, 2013 November 20, 2013 December 11, 2013 March 26, 2014

Pilot Periods: October 14 - November 22 and February 3 - March 14

APPENDIX B

DEADLINE: Friday, September 27 at 4pm LEADERSHIP, CURRICULUM & INSTRUCTION (LCI)



Name

School Name

Contact Phone #

Email

Experience

A. Please indicate the number of years of experience with the following:

Teaching:Teaching in OUSD:# Years Teaching by Grade level K:1st:2nd:3rd:4th:5th:

B. Grade Level(s) you currently teach:

Questions for the Applicant. On a separate sheet of paper, please respond to the following questions and attach it to the application form. (maximum 1 page, single-sided, size 12 Times Roman font)

- 1. Why are you interested in serving on the Mathematics Instructional Materials Selection Committee?
- Describe your knowledge of the Common Core content standards as well as the Standards for Mathematical Practice. Rate your level of expertise 1-10, with both set of standards (1=not familiar and 10=clear understanding and/or experience implementing standards)
- 3. What do you see as your major contribution(s) to the Committee?
- 4. What are some key features of a textbook/instructional materials that you believe are important in addressing the demands of the Common Core standards?

Applicant's Statement of Intent. I would like to serve on the OUSD Mathematics Textbook Selection Committee. If selected, I agree to attend all scheduled meetings and fully participate in the Committee's work. I will be particularly thorough, thoughtful, and diligent when reviewing materials. I certify that I have not used/piloted any of the 2013 State Board of Education adopted math textbooks in my classroom. I have not and will not accept gifts or honoraria and/or have any contact with any of the publishers whose materials are being considered.

Applicant's signature (If emailing application, print name): Date

Principal's Approval. I have read this application, including the applicant's response to the Questions for the Applicant listed above. I support his/her participation in the Mathematics Instructional Materials Selection Committee. I am aware that this teacher will be performing committee tasks at a minimum of 5 after-school sessions. It is my belief that he/she will be an effective contributor to the committee and will make every effort to select the best math instructional materials for the district's students and teachers.

Principal's signature (If emailing application, please CC your principal) Date

Submit applications to Celia Pascual by:

Fax: 510-482-6773 or Directly to the OUSD Mathematics Dept. – Tilden Campus, 4551 Steele Street, Oakland 94609, Portable H Email: Celia.Pascual@ousd.k12.ca.us

DUE DATE: September 27, 2013 at 4pm – Applicants will receive a confirmation email once the application is received. Applicants will be notified by email on September 30 about their participation on this committee.



Community Schools, Thriving Students

6th+:

APPENDIX C

Mathematics Instructional Materials Selection (MIMS) Committee Members 2013-14

	Teacher	Grade	School	Years Teaching
1	Ann Park	5	Bridges	22
2 Jessica Jung		5	Bridges	7
3	Rosemary Donehew	5	Esperanza	28
4	Becky Syrowski	5	Esperanza	5
5	Chaz Garcia	4	Esperanza	18
6	Marlene Wilson	4	Hillcrest	22
7	Freida Baker-Nash	4	Howard	30
8	January Anderson	Science Prep, 3	Allendale	9
9	Deidre Robinson	3	Joaquin Miller	10
10	Simone Busuttil	2	Korematsu	5
11	Alie Graf	2	Franklin	3
12	Rosanna Kaser	2	Redwood Heights	8
13	Tammie Adams	1	Brookfield	19
14	Emily Flores	K	Brookfield	5
15	Delores Beleche	K	Esperanza	18
16	Sonia Thacher	RSP	Sequoia	13

APPENDIX D

Mathematics Instructional Programs Reviewed & Piloted

Program Title	Publisher	Average Rating from Analysis Tools (Highest rating is 4)	Pilot (Yes or No)
EnVisionMath Common Core	Pearson	1.5	NO
GO Math!	Houghton Mifflin Harcourt	2.9	NO
Math Expressions	Houghton Mifflin Harcourt	3.3	YES
Everyday Mathematics	McGraw Hill	1.8	NO
Math Trailblazers	Kendall Hunt	2.6	YES

APPENDIX E

Mathematics Pilot Teachers Roster

#	School	Teacher	Grade
1	Glenview	Barbara Collins	К
2	Glenview Barbara Havenar		K
3	Glenview Marcelo Granda		К
4	Glenview	Thomas Witte	1
5	Glenview Glenda Lemon		1
6	Glenview	Debbie Sullivan	1/2
7	Glenview	Louise Anderson	2
8	Glenview	Terri Salvatore	2
9	Glenview	John Miller	3
10	Glenview	Eric Ross	3
11	Glenview	Rebecca Wong	3/4
12	Glenview	Linda Morgan	4
13	Glenview	Edwina Smith	4
14	Glenview	Eric Swinderman	4/5
15	Glenview	Jennifer Brouhard	5
16	Glenview	Duane Wolfe	5
17	Glenview	Terri Ferree	SPED
18	Glenview	Dean Brianne	SPED
19	Glenview	Maren Jacobsen	1/2 and 4
20	Montclair	Kathleen Buty	К
21	Montclair	Aimee Green	К
22	Montclair	Karen Nicola	К
23	Montclair	Lori-Jill Seltzer	К
24	Montclair	Eulogia Gomez	1
25	Montclair	Valerie Lines	1
26	Montclair	Toni Morozumi	1
27	Montclair	Lori Norris	1
28	Montclair	Terri Littlejohn	2
29	Montclair	Saabirah Rasul	2
30	Montclair	Elizabeth Torres	2
31	Montclair	Dorothy Turcitu	2
32	Montclair	Kim Nibblett	3
33	Montclair	Geneva Peare	3
34	Montclair	Carole Valentino	3
35	Montclair	Julie Chanter	4
36	Montclair	Rob Souza	4
37	Montclair	Meg Woodruff	4
38	Montclair	Lu Pearson	5
39	Montclair	Marilyn Spingarn	5

APPENDIX E

40	Montclair	Susan Swenson-Brookes	5
41	Munck	Tina Linarez	К
42	Munck	Logan McWilliams	K/1
43	Munck	Joy Harrison	1
44	Munck	Steven Miyamoto	1/2
45	Munck	Janet Lau	2
46	Munck	Rachelle Love	2
47	Munck	Nancy Ottobre	3
48	Munck	Susan Townsend	3
49	Munck	Manuel Labrador	4
50	Munck	Allen Kaflowitz	4
51	Munck	Ellen Shaler	5
52	Munck	Debra Robinson	5
53	Munck	Amanda Seaton	SPED
54	Munck	Kim Hood	SPED
55	Munck	Monica Rudnick	RSP
56	Cleveland	Jason Dowd/Schriner	К
57	Cleveland	Jill Schalet	2/3
58	Cleveland	Mary Loeser	4
59	Cleveland	Dana Smith	5
60	Cleveland	Dorcas Chan	5
61	Esperanza	Chaz Garcia	4
62	Esperanza	Becky Syrowski	5
63	Esperanza	Rosemary Donehew	5
64	Think College Now	Monica Purdy	К
65	Think College Now	Marie Sanner	К
66	Think College Now	Julia Gelormino	1
67	Think College Now	Tracy Neal	1
68	Think College Now	Kyle Smith	2
69	Think College Now	Kaitlin Schiff	2
70	Bridges Academy	Ann Park	5
71	Bridges Academy	Jessica Jung	5
72	Brookfield	Emily Flores	К
73	Brookfield	Tammie Adams	1

Appendix F

Summary of Evaluations from Mathematics Pilot Teachers

	Math Trailblazers
Program Components That Support Shift to CCSS	 Student activities, tasks and games Math Trailblazer manipulatives and student tools Math models (Open Number Line, Area Model, etc.)
Strengths	 Balance of mathematical/conceptual understanding and procedural skills Student-centered, creative, engaging, hands-on activities and games Students are asked to solve problems using multiple strategies, discuss and explain their thinking with classmates
Weaknesses	 Teacher's manual: dense, not organized well, difficult to use, confusing, etc. Too much teacher preparation and reading for each lesson Not enough daily homework since lessons span multiple days
Average Rating 1=NO don't adopt 5=Neutral 10= YES adopt	5

	Math Expressions
Program Components That Support Shift to CCSS	 Student activities Puzzled Penguin (error analysis) Math Talk MX Resources (120 number chart, secret code cards, math whiteboards, manipulatives and tools)
Strengths	 Ease of use, very teacher friendly, well organized Good content coverage, including Standards for Mathematical Practice and quality/quantity of word problems Students can access the mathematics, relate, enjoy and feel successful Lots of opportunities for academic discussion
Weaknesses	 Coverage is too broad, too much in one lesson Too much direct instruction, not enough opportunities for students to develop understanding Not enough HW since lessons span multiple days (although many teachers commented on homework as a strength)
Average Rating 1=NO don't adopt 5=Neutral 10= YES adopt	8

Appendix G

Summary of Evaluations from Mathematics Pilot Principals

	Math Trailblazers
Strengths of the	rigor of the programliteracy connection
program	 manipulatives, games and activities
the program	 teacher's manual was not organized well for teachers to navigate too much copying was expected from teachers
	 homework was confusing for parents; there was not enough practice

	Math Expressions
Strengths of the program	 clear teacher's manual: laid out well, easy to access, user-friendly rigor of the program resources, materials and manipulatives activities were challenging (enough) for students good homework options
Weaknesses of the program	no major concerns were noted

4 out of 5 Principals recommended Math Expressions over Trailblazers. The last principal did not state a preference.

Appendix H

Parent, Teacher and Principal Feedback Form From Community Engagement, April 1, 2014

Total number in attendance: 27

- Parents: 4
- Teachers: 18
- Principals: 0
- LCI Specialists: 5

Summary of feedback:

	Math Expressions
	 More about Math Expressions (MX). It sounds like this could be good What teachers think (about MX)
What Did You Learn?	 That many teachers who piloted MX like it a lot. That's reassuring
	How the Penguin in MX helps kids think about problems
	Tasks from OUSD will be put in with the MX curriculum
	• Teachers want to use the MX curriculum in the sequence presented by the publisher
What Do You Hope?	That we adopt Math Expressions (stated explicitly in 12 out of 15 feedback forms received)
	That we use MX with OUSD Core Curriculum tasks
	 That OUSD (will) invest in teaching us how to be excellent teachers under the new standards
	That there will be full (paid) PD offered that addresses our new curriculum; adequate
	training; 2-3 days max of PD this summer; Periodic PD after school and on Buy Back
	Days to continue to support teachers' learning of a new curriculum
	That we follow the Scope and Sequence of MX
	That MX is (delivered) before the last day of school
	That Common Core is successful
What Are Your Concerns?	 Without a curriculum to support it many teachers (especially newer) probably won't be successful
	 That we'll go back to cookie-cutter enVision, and that I still won't have enough materials for all of my students
	That there be adequate training; We need to have enough time to make sure all of us including students, are successful
	That the sequence will be changed
	Teachers will not adopt it readily
	Balancing many programs
	 Having to use enVision with Core Curriculum next year
	• MX will be given to us 1 or 2 days before school starts (like our writing program) and
	then we have to learn it on the fly
	 Next year is going to be a disaster if we don't have curriculum aligned to Common Core
Questions	If MX is not adopted, what will we do?
	Can parents access the material?
	 Will we get materials by the end of the year?

APPENDIX I

Cost of Mathematics Instructional Materials

Math Expressions

Item	Total English Books	Total Spanish Books
Grade K Materials	3257	770
Grade 1 Materials	3456	734
Grade 2 Materials	3660	678
Grade 3 Materials	3665	286
Grade 4 Materials	3645	116
Grade 5 Materials	3494	105
Shipping & Handling	Free	
Sales Tax (9.00%)		
TOTAL COST	Not to exceed \$3.2 million over 6 years	

Note: These totals include overall projected enrollment plus a 15% overage on all English materials and 10% overage on all Spanish materials to cover the needs of students in Programs for Exceptional Children (PEC) and district overage needs.