TRANSITION TO THE COMMON CORE STATE STANDARDS (CCSS)

EVERGREEN SCHOOL DISTRICT
District Advisory Committee
December 10, 2014
How familiar are you with the Common Core?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>📧</td>
<td>Common Core? What is that?</td>
</tr>
<tr>
<td>🙋‍♂️</td>
<td>I have heard about the transition to the Common Core.</td>
</tr>
<tr>
<td>🙋‍♀️</td>
<td>I have a good understanding of Common Core teaching and learning.</td>
</tr>
<tr>
<td>🙋‍♂️</td>
<td>I have an understanding of how Common Core instruction will impact my child.</td>
</tr>
<tr>
<td>🙋‍♀️</td>
<td>I am a Common Core expert and could teach this workshop!</td>
</tr>
</tbody>
</table>
Outcomes

- To deepen the understanding of Common Core State Standards

- To identify and elaborate upon the 21st century student support systems of communication, collaboration, critical thinking and creativity (4 Cs) to teaching and learning

- To identify the relationship between depth of knowledge and assessment systems

- To expand upon Evergreen School District’s Common Core math acceleration pathways for grades 6-8

- To understand the alignment of Units of Study, materials, and professional development
Common Core State Standards

• Define the knowledge and skills students need for college and career
• Developed voluntarily and cooperatively by states; more than 40 states have adopted
• Provide clear, consistent standards in English language arts/literacy and mathematics

Source: www.corestandards.org
The Common Core focus is on . . .

- The need to be college/career ready
- The need to set consistent expectations for students
- The need to read increasingly complex materials

What are the critics saying?

- Intrusive computer tracking
- Loss of local control
- Creation of a national curriculum
- Government takeover of schools
- Lack of input from parents
- Standards are not affordable
With Common Core, you will see...

- **Less** lecturing and **more** modeling.
- **Less of** students listening and **more of** students constructing meaning together.
- **Less of** students recalling (although sometimes this is necessary) and **more of** students transferring their learning to new experiences.
- **Less** hurrying to cover more content and **more** slowing down to ensure deep understanding and application.
- **Less of** students reading just stories and **more of** students wrestling with informational texts in every subject area.
21st Century Student Outcomes & Support Systems

- Learning and Innovation Skills – 4Cs
  - Critical thinking • Communication
  - Collaboration • Creativity
- Core Subjects – 3Rs and 21st Century Themes
- Information, Media, and Technology Skills

- Standards and Assessments
- Curriculum and Instruction
- Professional Development
- Learning Environments

Life and Career Skills
The 4Cs and 21st Century Education

4 Cs: Communication, Collaboration, Creativity, Critical Thinking

**student**
- **COLLEGE & CAREER READY:**
  - I critically think,
  - I communicate, I collaborate and I create and innovate

**teacher**
- **FACILITATOR:**
  - I facilitate my students’ ability to use the 4Cs
- **ROLE MODEL:**
  - I demonstrate for my students my ability to use the 4Cs

**administrator**
- **FACILITATOR:**
  - I provide professional development to facilitate my staff’s use of the 4Cs
- **ROLE MODEL:**
  - I demonstrate the 4Cs for my faculty and staff
- **TRANSFORMER:**
  - I use the 4Cs to transform my school and district
Communication

- Use effective **interpersonal skills** during conversations to promote collaborative learning.
- **Communicate interactively and effectively** to support individual learning and contribute to the learning of others.
- Listen effectively to **decipher meaning**, including knowledge, values, attitudes and intentions.

Creativity

- **Think creatively** using a wide range of idea creation techniques (such as brainstorming)
- **Work creatively with others** to develop, implement and communicate new ideas to others effectively
- **Implement innovations** and act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur

*Definition from EdLeader 21 and the Partnership for 21st Century Skills*
4 Cs: Communication, Collaboration, Creativity, Critical Thinking

Critical Thinking

- Reason effectively
- Use systems thinking to analyze how parts of a whole interact
- Make judgments and decisions to effectively identify, analyze and evaluate information
- Identify, define and solve authentic problems and essential questions

*Definition from EdLeader 21 and the Partnership for 21st Century Skills

Collaboration

- Demonstrate ability to work effectively and respectfully with diverse teams
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member

*Definition from EdLeader 21 and the Partnership for 21st Century Skills
Depth of Knowledge

The complexity or depth of understanding required to answer or explain an assessment related item.

Low-Cognitive Demand
Level 1: Recalling and Recognizing
Level 2: Using Procedures

High-Cognitive Demand
Level 3: Explaining and Concluding
Level 4: Making Connections, Extending and Justifying
<table>
<thead>
<tr>
<th>Level One Activity</th>
<th>Level Two Activity</th>
<th>Level Three Activity</th>
<th>Level Four Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will identify essential information needed to accomplish a task</td>
<td>Students will identify information in a passage that is supported by fact</td>
<td>Students will identify the appropriateness of an argument using supporting evidence</td>
<td>Students will identify interrelationships (themes, ideas, concepts) developed in more than one literary work.</td>
</tr>
</tbody>
</table>
Common Core Big Ideas
Depth of Knowledge (DOKs)

<table>
<thead>
<tr>
<th></th>
<th>Mathematics</th>
<th></th>
<th>ELA/Literacy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOK3</td>
<td>DOK4</td>
<td>DOK3</td>
<td>DOK4</td>
</tr>
<tr>
<td>Current Assessments</td>
<td>&lt;2%</td>
<td>0%</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>New SBAC Assessments</td>
<td>49%</td>
<td>21%</td>
<td>43%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Yuan & Le (2012); Herman & Linn (2013) from Linda Darling-Hammond, Assembly Hearing, 3.6.13
Common Core English Language Arts
## Shifts in ELA Literacy

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Balancing Informational &amp; Literary Text</td>
<td>Students read a true balance of informational text and literary texts.</td>
</tr>
<tr>
<td>2</td>
<td>Knowledge in the Disciplines</td>
<td>Students build knowledge about the world (domains/ content areas) through TEXT rather than the teacher or activities.</td>
</tr>
<tr>
<td>3</td>
<td>Staircase of Complexity</td>
<td>Students read the central, grade appropriate text around which instruction is centered. Teachers are patient, create more time and space and support in the curriculum for close reading.</td>
</tr>
<tr>
<td>4</td>
<td>Text-Based Answers</td>
<td>Students engage in rich and rigorous evidence based conversations about text.</td>
</tr>
<tr>
<td>5</td>
<td>Writing from Sources</td>
<td>Writing emphasizes use of evidence from sources to inform or make an argument.</td>
</tr>
<tr>
<td>6</td>
<td>Academic Vocabulary</td>
<td>Students constantly build the transferable vocabulary they need to access grade level complex texts. This can be done effectively by spiraling like content in increasingly complex texts.</td>
</tr>
</tbody>
</table>
## Relationship Between ELD/ELA

<table>
<thead>
<tr>
<th>ELD Standard</th>
<th>1.1 Exchanging information and ideas with others through oral collaborative discussions on a range of social and academic topics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emerging</strong></td>
<td>Contribute to conversations and express ideas by asking and answering yes-no and wh- questions and responding in short phrases</td>
</tr>
<tr>
<td><strong>Expanding</strong></td>
<td>Contribute to class, group and partner discussions, including sustained dialogue by following turn taking rules, asking relevant questions, affirming others and adding relevant information.</td>
</tr>
<tr>
<td><strong>Bridging</strong></td>
<td>Contribute to class, group and partner discussions, including sustained dialogue, by following turn taking rules, asking relevant questions, affirming others, adding relevant information building on response and providing useful feedback.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ELA Standard</th>
<th>[SL.1] Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong></td>
<td>Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</td>
</tr>
<tr>
<td><strong>b.</strong></td>
<td>Follow agreed-upon rules for discussions and carry out assigned roles.</td>
</tr>
<tr>
<td><strong>c.</strong></td>
<td>Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</td>
</tr>
<tr>
<td><strong>d.</strong></td>
<td>Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</td>
</tr>
</tbody>
</table>
Common Core Mathematics
Rigor refers to deep, authentic command of mathematical concepts, not making math harder or introducing topics at earlier grades. To help students meet the standards, educators will need to pursue, with equal intensity, three aspects of rigor in the major work of each grade: conceptual understanding, procedural skills and fluency, and application.

http://www.corestandards.org/other-resources/key-shifts-in-mathematics/
# Shifts in Mathematics

<table>
<thead>
<tr>
<th></th>
<th>Shift</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Focus</td>
<td>Teachers significantly narrow and deepen the scope of how time and energy are spent in the math classroom. They focus deeply on only the concepts that are a priority in the standards.</td>
</tr>
<tr>
<td>2</td>
<td>Coherence</td>
<td>Principals and teachers carefully connect the learning within and across grades so that students can build new understanding onto foundations built in previous years.</td>
</tr>
<tr>
<td>3</td>
<td>Fluency</td>
<td>Students are expected to have speed and accuracy with simple calculations; teachers structure class time and/or homework time for students to memorize, through repetition, core functions.</td>
</tr>
<tr>
<td>4</td>
<td>Deep Understanding</td>
<td>Students deeply understand and can operate easily within a math concept before moving on. They learn more than the trick to get the answer right. They learn the math.</td>
</tr>
<tr>
<td>5</td>
<td>Application</td>
<td>Students are expected to use math and choose the appropriate concept for application even when they are not prompted to do so.</td>
</tr>
<tr>
<td>6</td>
<td>Dual Intensity</td>
<td>Students are practicing and understanding. There is more than a balance between two things in the classroom - both are occurring with intensity.</td>
</tr>
</tbody>
</table>
Common Core Mathematics

- Both Evergreen School District and East Side Union High School District will support an integrated approach to teaching mathematics.
- Evergreen and East Side will offer accelerated pathways to enable all students the opportunity to take calculus.
The Coffee Problem: An exercise in Surfacing our knowledge of arithmetic

Consider the following two coffee mixes:

```
<table>
<thead>
<tr>
<th>M</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>C</td>
</tr>
<tr>
<td>M</td>
<td>C</td>
</tr>
</tbody>
</table>

```

```
<table>
<thead>
<tr>
<th>M</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>C</td>
</tr>
</tbody>
</table>
```
The Coffee Problem

• Is one coffee mix “milkier” than the other? Or are the mixes the same “milkiness”?

• Step 1: Individually, attempt the problem without using fractions, percentages, or decimals. (3 minutes)

• Step 2: At your tables, share the different strategies that you used to solve the problem. (5 minutes)
• Share your experience as a learner? Participant? Emotions?
The “traditional” algorithm . . .
# Common Core Math Pathways Implementation

## East Side Union High School District

### Grade 8 (2013/2014)
- **CCSS 8 or Other 8th Grade Courses**

### Grade 9 (2014/2015)
- **Geometry**

### Grade 10 (2015/2016)
- **Algebra 2**
- **Math Analysis**
- **AP Statistics**

### Grade 11 (2016/2017)
- **AP Calculus AB**
- **AP Statistics**

### Grade 12 (2017/2018)
- **AP Calculus BC**
- **AP Statistics**
- **Math Analysis**
- **AP Calculus AB**
- **AP Statistics**
2014-15 Accelerated Pathway
For 8th Graders

2013-14
7th Grade
Algebra

2014-15
8th Grade
Geometry

2015-16
9th Grade
Algebra 2
Evergreen School District

Revised Accelerated Pathway
7th Graders

2014-15
- Traditional Pathway
  - 7th Grade Common Core

2015-16
- Accelerated Pathway*
  - 7th Grade Common Core
  - 7th/8th Grade Common Core
  - 9th Grade H.S. CCSS Math I

* Acceleration Criteria:
  - Score on 5th grade CST
  - Score on 6th grade Math Diagnostic Testing Project Assessment
  - Score on 7th grade diagnostic assessment
Evergreen School District

Math Pathways for 2015-16 & Beyond

6th Grade

Traditional Pathway

6th Grade Common Core Math 6

Accelerated Pathway*

7th Grade

7th Grade Common Core Math 7

8th Grade

8th Grade Common Core Math 8

7th/8th Grade

7th/8th Grade Common Core Math 7/8

9th Grade

9th Grade H.S. CCSS Math 1

*Acceleration Criteria:
• 6th Grade Smarter Balanced (CAASPP) Assessment
• Math Diagnostic Placement Exam
• Course Diagnostic Exam
Mathematics Unit Design

- We believe that we have the internal capacity and ability to problem solve, design instruction, and tailor outcomes and experiences that lead to student success.
  - CTA recognizes, “they [Common Core Standards] put teachers back in control of crafting and tailoring the education of their students.”
    - California Teachers Association
  - States and local school districts must place teachers at the center of efforts to develop aligned curriculum, assessments, and professional development that are relevant to their students and local communities.
    - National Education Association

- Units contain:
  - Learning objectives
  - Criteria for success
  - Essential and relevant questions
  - Assessment
Let’s Look at A Unit...
Introduction

UNIT 1: Number & Operations in Base 10

Unit Overview:
This unit covers the topics of place value to the thousands place, rounding whole numbers, and the operations of addition and subtraction. Students will continue to develop understanding of addition and subtraction and apply these concepts to solve real-world problems.

Learning Objectives:
- Students will investigate, understand, and use place value to manipulate numbers.
- Students will build on understanding of place value to round whole numbers.
- Students will investigate, understand, and use place value to manipulate numbers.
- Students will continue to develop understanding of addition and subtraction and apply these concepts to solve real-world problems.

UNIT 1 TABLE OF CONTENTS

Overview of the 3rd Grade Mathematics Program ........................................ p. 3
Essential Standards ....................................................................................... p. 5
Emphasized Mathematical Practices .......................................................... p. 5
Enduring Understandings & Essential Questions ......................................... p. 6
Chapter 1: Place Value & Rounding ............................................................. p. 7
Chapter 2: Addition & Subtraction within 1,000 ........................................ p. 11
Chapter 3: Focus on Word Problems .......................................................... p. 13
Appendices ................................................................................................. p. 15

Essential Standards:
3.NBT.1 Understand the place value system.
3.NBT.2 Fluently add and subtract multi-digit numbers using the standard algorithm.
3.OA.1 Represent and solve one-step word problems involving addition and subtraction.
3.OA.2 Multiply and divide within 100, using strategies such as patterns.
3.OA.3 Use multiplication and division within 100 to solve word problems.
3.OA.4 Determine the unknown quantity in a word problem.
3.OA.5 Understand the relationship between multiplication and division.
3.OA.6 Understand the commutative property of multiplication.
3.OA.7 Fluently multiply within 100, using strategies such as patterns.

Scope and Sequence

Table of Contents

Learning Objectives

Instructional Days: 25

UNIT 2: Rectangular Arrays & Area

A PROX.

UNIT 3: Multiplication

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.

UNIT 1: Number & Operations in Base 10

APROX.

UNIT 2: Multiplication

APROX.

UNIT 3: Rectangular Arrays & Area

APROX.
Mathematical Practice and Essential Questions

Let's Look at A Unit...

Essential Questions & Chaptering

Instructional Chapters
Let's Look at A Unit…

Assessment

Place Value Cards

Learning Objectives
- Understand place value to the thousands place (3.NBT.1)

Task Overview
The task gives students the chance to show understanding of whole numbers.

Materials
- Task worksheet

Vocabulary
digit
place value
standard form
expanded form
whole number
word form

Essential Questions
- How can you show numbers to the thousands place?
- What can you learn about the value of a number by examining its digits?
- How can you read and write numbers in standard, expanded, and word form?

Criteria for Success
- Students draw a set of four numbers, students will be able to write the largest and smallest four digit number, show understanding of place value to the thousands place.

A Mixed-Up School

Unit 1- Number and Operations in Base 10 Performance Task

Lakeside Elementary School is all mixed-up. Can you help them fix the problems at their school?

1. Mrs. Taft came into her classroom this morning and saw that someone had knocked over her class’s marble jar. There were 147 marbles in the jar, but she could only find 129 marbles on the floor.
How many marbles are still missing? _____________
Show your work.

2. Mrs. Taft also noticed that parts of the math problems she had written on the board had been erased. Can you help her put the missing numbers back into the problems?

\[
\begin{align*}
243 &+ 132 = 765 \\
78 &+ 39 = 117 \\
65 &+ 202 = 267 \\
372 &+ 41 = 413
\end{align*}
\]

rubric:

<table>
<thead>
<tr>
<th>Points</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gives correct answer as: 18</td>
</tr>
<tr>
<td>1 pt.</td>
<td>Shows calculations</td>
</tr>
<tr>
<td>2.</td>
<td>Correctly fills in boxes as follows:</td>
</tr>
<tr>
<td>243</td>
<td>542    765</td>
</tr>
<tr>
<td>297</td>
<td>643 635</td>
</tr>
<tr>
<td>378</td>
<td>395 1,029</td>
</tr>
<tr>
<td>372</td>
<td>441 285</td>
</tr>
<tr>
<td>3.</td>
<td>Corrects math problems as follows:</td>
</tr>
<tr>
<td></td>
<td>(1 pt. for each problem, 1 pt. for each explanation)</td>
</tr>
<tr>
<td>429</td>
<td>Gives explanation such as: &quot;Tam forgot to carry the ten.&quot;</td>
</tr>
<tr>
<td>352</td>
<td>Gives explanation such as: &quot;Tam didn’t regroup.&quot;</td>
</tr>
<tr>
<td>568</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Gives explanation such as: &quot;Yes, because Janelle might have a number of stickers that is less than 48 but still rounds up to 50.&quot; (45, 46, or 47 stickers)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>The numbers are circled as follows:</td>
</tr>
<tr>
<td>145</td>
<td>244 276</td>
</tr>
<tr>
<td>238</td>
<td>150 219</td>
</tr>
<tr>
<td>2.</td>
<td>Gives correct answer as: 20 more pencils</td>
</tr>
<tr>
<td></td>
<td>Shows calculations</td>
</tr>
<tr>
<td>3.</td>
<td>Gives correct answer as: 908</td>
</tr>
<tr>
<td></td>
<td>Checks work using subtraction</td>
</tr>
<tr>
<td>4.</td>
<td>Checks work using addition</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total points: 25
Unit Support Materials

- Support teacher developed units of study
- Embedded approaches and universal access to meet the needs of differentiated populations including those in special education and/or those identified as “at-risk”
- Professional development opportunities for staff

Pearson Investigations Grades K-5 Investigations in Number, Data, and Space

College Preparatory Mathematics, Core Connections
Driving Question: “How can we support teachers as they implement common core standards utilizing units of study and accompanying support materials?”

Ideas expressed involved:

• vision for common core implementation
• the idea of teachers as “curriculum developers”
• the need for “foundational materials”
• time
For More Information

- California Department of Education
  http://www.cde.ca.gov/re/cc/tl/whatareccss.asp
  http://www.cde.ca.gov/re/cc/ccssinfoflyers.asp
  http://www.cde.ca.gov/core

- Common Core Standards Initiative
  http://corestandards.org

- Common Core en Español
  http://commoncore-espanol.com/

- California County Superintendents Association
  http://www.ccsesa.org/index/sp_CommonCoreStandards.cfm

- National Parent Teacher Association
  http://www.pta.org/4446.htm

- Council of Great City Schools
  http://www.cgcs.org/Domain/36
Welcome to Common Core Translation Project
Committed to providing leadership, assistance, and resources so that every student has access to an education that meets world-class standards, the Council of Chief State School Officers (CCSSO), the California Department of Education (CDE) and the San Diego County Office of Education (SDCOE) proudly announce the Common Core Translation Project. Standards-based instruction is at the forefront of education reform because it presents a framework to ensure that all students are exposed to rigorous content and prepared to contribute positively to an increasingly complex world.

http://commoncore-espanol.com/
Questions
Dan Deguara
Assistant Superintendent
408-270-6827
ddeguara@eesd.org