Common Core Parent Information Night for Grades 6 – 12

Edison Township Public Schools
October 8, 2014, Edison High School 6:30 pm
October 16, 2014, JP Stevens High School 6:30 pm
Tonight’s Objectives

- Background on the Common Core State Standards
- Help parents understand what college readiness is and why it matters.
- Introduce parents to the new standards and help them understand the impact of what and how students learn
Common Core History

- State-led and developed Common Core State Standards for K – 12 English Language Arts and Mathematics
- Initiative led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA)
- Developed in 2009
- Approved in NJ 2010
- Implementation began 2011 – 2102 and was to be completed by 2013 – 2014
Why Common Core?

- Prepare students with the knowledge and skills they need to succeed in college and work
- Ensure consistent expectations regardless of where a student may live
- Make states more globally competitive
- Provide educators, parents, and students with clear, focused guideposts
What are the Common Core Standards?

- http://vimeo.com/51933492
46 States Approved the Common Core
The Common Core State Standards set grade–by–grade learning expectations for students in grades K–12 for Mathematics and English Language Arts and Literacy.

While states have had standards for more than 15 years, this set of standards is more focused on preparing students for success in college and career. They set clear, consistent and high learning goals.
The CCSS emphasized getting students ready for success in college and the workforce.

…but what does that mean?
College Readiness means that graduates have the skills they need to do well in college.

“College” doesn’t just mean a four-year degree. It can mean any program that leads to a degree or certificate.

Being “ready” means that students graduate from high schools with the key skills in English and Mathematics.
Career Readiness

- **Career readiness** means that high school graduates are qualified for and able to do well in long-term careers.

- **Career** doesn’t just mean a job. It means a profession that lets graduates succeed at a job they enjoy and earn a competitive wage.
Why does this matter?

- Nationwide for every 100 ninth graders
  - 65 graduate from high school
    - 37 enter college
      - 24 are still enrolled in sophomore year
      - 12 graduate in six years

- In NJ for every 100 ninth graders
  - 87 graduate from high school
    - 62 enter college
      - 50 are still enrolled in sophomore year
      - 31 graduate in six years
When students are not College Ready

- 28 to 40% of first time undergraduates require at least one remedial course (50% for community colleges)
- Less than 50% of remedial students complete their remedial courses
- Nationwide 58% of students who do not require remedial courses earn a bachelors degree, only 17% of those in remedial reading and 27% in remedial math will
The new standards will...

- **Prepare** students to succeed in college and the workforce

- **Ensure** that every child—regardless of race, ethnicity or zip code—is held to the same high standards and learns the same material

- **Provide** educators with a clear, focused roadmap for what to teach and when
Four Strands: Reading, Writing, Speaking and Listening, Language

Reading and Writing Strands for History/Social Studies, Science and Technical Subjects

Text complexity standards are listed by grade “bands”: K–1, 2–3, 4–5, 6–8, 9–10, 11–12, CCR – College and Career Ready
What it Looks Like (Sample)

<table>
<thead>
<tr>
<th>Strand</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor Standard</td>
<td>Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.</td>
</tr>
</tbody>
</table>
| Grade Specific Standard     | • Introduce claim(s) and organize the reasons and evidence clearly.  
• Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.  
• Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.  
• Establish and maintain a formal style.  
• Provide a concluding statement or section that follows from the argument presented. |
ELA Shift #1: Content–Rich Nonfiction

Balance of literary to informational texts

- 50/50 in K–5
- 45/55 in grades 6–8
- 30/70 in grades 9–12

Beginning in grades 2, students read more complex texts, combining foundational skills with reading comprehension.

- Reading aloud texts that are well–above grade level are used K–5 and beyond to build vocabulary and background knowledge.
Most college and workplace writing requires evidence.

Ability to cite evidence differentiates strong from weak student performance on NAEP

Evidence is a major emphasis of the ELA Standards:

- Reading Standard 1
- Writing Standard 9
- Speaking and Listening Standards 2, 3, and 4
In “Casey at the Bat,” Casey strikes out. Describe a time when you failed at something.

What makes Casey’s experiences at bat humorous?

In “Letter from a Birmingham Jail,” Dr. King discusses nonviolent protest. Discuss, in writing, a time when you wanted to fight against something that you felt was unfair.

What can you infer from King’s letter about the letter that he received?

In “The Gettysburg Address” Lincoln says the nation is dedicated to the proposition that all men are created equal. Why is equality an important value to promote?

“The Gettysburg Address” mentions the year 1776. According to Lincoln’s speech, why is this year significant to the events described in the speech?
James Watson used time away from his laboratory and a set of models similar to preschool toys to help him solve the puzzle of DNA. In an essay discuss how play and relaxation help promote clear thinking and problem solving.
CCSS Informational Text Assessment Question:

High school students read an excerpt of James D. Watson’s *The Double Helix* and respond to the following:

*What mistakes did Watson make along the way to his discovery? What was his response to this mistake?*
ELA Shift #3: Complex Text & Academic Language

- There is a 4 year gap in the complexity of what students read by the end of high school and college.
- What students can read, in terms of complexity is the greatest predictor of success in college (ACT study).
- <50% of graduates can read sufficiently complex texts.
- Standards focus on building academic vocabulary to improve comprehension.
- Standards include a staircase of text complexity from elementary through high school.
What are the Qualitative Features of Complex Text?

- Subtle and/or frequent transitions
- Multiple and/or subtle themes and purposes
- Density of information
- Unfamiliar settings, topics or events
- Lack of repetition, overlap or similarity in words and sentences
- Complex sentences
- Uncommon vocabulary
- Lack of words, sentences or paragraphs that review or pull things together for the student
- Longer paragraphs
- Any text structure which is less narrative and/or mixes structures
Close Analytic Reading

- Requires prompting students with text-dependent questions to unpack complex text and gain knowledge.
- Text dependent questions require text-based answers – evidence.
- Not teacher summarizing text, but guiding students through the text for information.
- Virtually every standard is activated during the course of every close analytic reading exemplar through the use of text dependent questions.
- Supports fluency
Shifts Mean a Change in Practice!

FROM…

- Content knowledge *primarily from teacher-led lecture*

TO…

- Content knowledge comes from a *balance of reading, writing, lecture and hands-on experience*
ELA Standards for History/Social Studies, Science & Technical Subjects

- In the Appendix to ELA Standards
- Content specific application of reading and writing standards
- Grade spans 6 – 8, 9 – 10 and 11 – 12

10 Standards in Reading Strand
  - Key Ideas and Details
  - Craft and Structure
  - Integration of Knowledge and Ideas
  - Range of Reading and Level of Text Complexity
Impact on Instruction

History/Social Studies, Science and Technical Subjects

- More reading across content with specific strategies designed to raise the reading level of all students so that they are college/career ready
- More discipline specific writing including arguments, informative/explanatory while continuing to develop narrative skill
A Closer Look at the Math Shifts of the Common Core State Standards
Math Standards: Design and Organization

- Standards for Mathematical Practice
  - Carry across all grade levels
  - Describe habits of mind of a mathematically expert student

- Standards for Mathematical Content
  - K – 8 standards presented by grade level
  - High school standards presented by conceptual there

- Appendix
  - Designing high school math courses based on the Common Core State Standards
**Domains** are large groups of related standards. Domains change from grade to grade to reflect the changing focus of each grade. Standards from different domains may sometimes be closely related.

**Clusters** are groups of related standards. Each domain has 1–4 clusters. Standards from different clusters may sometimes be closely related.

**Standards** define what students should understand and be able to do.
College Math Professors Feel HS students Today are Not Prepared for College Math

What percentage of mathematics educators reported that their students are prepared for college-level work in mathematics?

- High School Mathematics Instructors: 89%
- Postsecondary Mathematics Instructors: 26%

The CCSS Requires Three Shifts in Mathematics

- **Focus** strongly where the standards focus

- **Coherence**: Think across grades and link to major topics

- **Rigor**: In major topics, pursue conceptual understanding, procedural skill and fluency and application
Traditional US Approach

Number and Operations

Measurement and Geometry

Algebra and Functions

Statistics and Probability

K

12
Shift #1: Focus (within Number and Operations)

- Operations and Algebraic Thinking
- Number and Operations—Base Ten
- Number and Operations—Fractions
- Expressions and Equations
- The Number System
- Algebra

K 1 2 3 4 5 6 7 8 High School
## Priorities in Mathematics

<table>
<thead>
<tr>
<th>Grade</th>
<th>Priorities in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>K–2</td>
<td>Addition and subtraction, measurement using whole number quantities</td>
</tr>
<tr>
<td>3–5</td>
<td>Multiplication and division of whole numbers and fractions</td>
</tr>
<tr>
<td>6</td>
<td>Ratios and proportional reasoning; early expressions and equations</td>
</tr>
<tr>
<td>7</td>
<td>Ratios and proportional reasoning; arithmetic of rational numbers</td>
</tr>
<tr>
<td>8</td>
<td>Linear algebra/linear functions</td>
</tr>
</tbody>
</table>
Shift #2: Coherence

- Carefully connect the learning within and across grades so that students can build new understanding on foundations built in previous years.

- Each standard is not a new event, but an extension of previous learning.

- “The Standards are not so much built from topics as they are woven out of progressions.”

Structure is the Standards, Publishers’ Criteria for Mathematics,
## Coherence: Link to Major Topics

**Sample: Domain – Geometry with Grade Level Clusters, detailed standards are not included**

<table>
<thead>
<tr>
<th>Grade 4</th>
<th>Draw and identify lines and angles, and classify shapes by properties of their lines and angles</th>
</tr>
</thead>
</table>
| Grade 5       | • Graph points on the coordinate plane to solve real-world and mathematical problems  
• Classify two-dimensional figures into categories based on their properties |
| Grade 6       | Solve real-world and mathematical problems involving area, surface area and volume |
| Grade 7       | • Draw construct, and describe geometrical figures and describe the relationships between them  
• Solve real-life and mathematical problems involving angle measure, area, surface areas and volume |
| Grade 8       | • Understand congruence and similarity using physical models, transparencies or geometry software  
• Understand and apply the Pythagorean Theorem  
• Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. |
Shift #3: Rigor

- The CCSS require a balance of:
  - Solid conceptual understanding
  - Procedural skill and fluency
  - Application of skills in problem solving situations

- Pursuit of all three requires equal intensity in time, activities, and resources.
# NJCCCS vs. Common Core

## Mathematics

### Grade 8

<table>
<thead>
<tr>
<th>NJCCCS</th>
<th>CCSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand and apply the Pythagorean Theorem. (4.2.8.A.2)</td>
<td>1. Explain a proof of the Pythagorean Theorem and its converse.</td>
</tr>
<tr>
<td></td>
<td>2. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</td>
</tr>
<tr>
<td></td>
<td>3. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. (8.G.B.6–8)</td>
</tr>
</tbody>
</table>
Solid Conceptual Understanding

- Teach more than “how to get the answer” and instead support students’ ability to access concepts from a number of perspectives
- Students are able to see math as more than a set of mnemonics or discrete procedures
- Conceptual understanding supports the other aspects of rigor (*fluency and application*)
Fluency

- The standards require speed and accuracy in calculation.
- Teachers structure class time and/or homework time for students to practice core functions such as single-digit multiplication so that they are more able to understand and manipulate more complex concepts.
## Required Fluencies in K – 6

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standard</th>
<th>Required Fluency</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>K.OA.5</td>
<td>Add/subtract within 5</td>
</tr>
<tr>
<td>1</td>
<td>1.OA.6</td>
<td>Add/subtract within 10</td>
</tr>
<tr>
<td>2</td>
<td>2.OA.2</td>
<td>Add/subtract within 20 (know single-digit sums from memory)</td>
</tr>
<tr>
<td></td>
<td>2.NBT.5</td>
<td>Add/subtract within 100</td>
</tr>
<tr>
<td>3</td>
<td>3.OA.7</td>
<td>Multiply/divide within 100 (know single-digit products from memory)</td>
</tr>
<tr>
<td></td>
<td>3.NBT.2</td>
<td>Add/subtract within 1000</td>
</tr>
<tr>
<td>4</td>
<td>4.NBT.4</td>
<td>Add/subtract within 1,000,000</td>
</tr>
<tr>
<td>5</td>
<td>5.NBT.5</td>
<td>Multi-digit multiplication</td>
</tr>
<tr>
<td>6</td>
<td>6.NS.2,3</td>
<td>Multi-digit division</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multi-digit decimal operations</td>
</tr>
</tbody>
</table>
Students can use appropriate concepts and procedures for application even when not prompted to do so.

Teachers provide opportunities at all grade levels for students to apply math concepts in “real world” situations, recognizing this means different things in K–5, 6–8, and HS.

Teachers in content areas outside of math, particularly science, ensure that students are using grade–level–appropriate math to make meaning of and access science content.
Standards for Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. **Attend to precision.**
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.
Changes in Math Practice

“"We will no longer teach students to memorize by rote, to understand superficial facts and figures without more nuanced understanding, applicable to real-world problems. Rather, we will teach them to analyze, to generate and test hypotheses. We will ask them to think like mathematician rather than just do math.” (Robert Marzano)
Students must understand and be able to explain the structural underpinnings of mathematics reasoning. It was enough to memorize formulas and patterns to achieve the right answer.

Emphasis on solving math word problems, or "constructed response" problems. Sometimes these questions ask children to undo, and then fix, a problem that has been incorrectly solved.

Change from focusing on computation to focusing on problem solving strategies

Less “teacher talk” more student practice and exploration for deeper understanding
CCSS vs PARCC

- Partnership for the Assessment of Readiness for College and Career
- On-Line Assessments aligned to Common Core designed to measure student achievement
- States voluntarily administer PARCC
- 46 Common Core States, 12 are PARCC including NJ (had been 19 states)
PARCC replaces NJASK and HSPA beginning Spring, 2015
Public Schools in NJ have NO CHOICE in administering PARCC just as there was no choice in administering NJASK and HSPA
Tests are very different than prior tests in terms of time and administration
- Performance Based Component
- End of Year Component
PARCC – Performance Based Assessments

- Testing Window – March 2 – 27th
  - ELA/Literacy: Read texts and write several pieces to demonstrate that can read and understand complex texts independently, write effectively when using and analyzing sources and build/communicate knowledge by integrating, comparing and synthesizing ideas
  - Math: Solve problems based on knowledge and skills for their grade, express mathematical reasoning and construct a mathematical argument, apply concepts to solve model real world problems
PARCC – End of Year Assessments

- April 27 – May 22 (Grades 3 – 8) and April 20 – May 15 (Grades 9 – 11)
  - Students will demonstrate their acquired skills and knowledge by answering computer-based, machine scorable questions
  - Scores of PBA and EOY are combined into a single score
## PARCC Grades 3 – 5

<table>
<thead>
<tr>
<th></th>
<th>PBA Unit 1</th>
<th>PBA Unit 2</th>
<th>PBA Unit 3</th>
<th>EOY Unit 1</th>
<th>EOY Unit 2</th>
<th>Ttl Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade 3, ELA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 hrs, 45 m</td>
</tr>
<tr>
<td>Unit Time</td>
<td>75</td>
<td>75</td>
<td>60</td>
<td>75</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Est. Time on Task</td>
<td>50</td>
<td>50</td>
<td>40</td>
<td>50</td>
<td></td>
<td>3 hrs, 10 m</td>
</tr>
<tr>
<td><strong>Grade 3 Math</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 hrs</td>
</tr>
<tr>
<td>Unit Time</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Est. Time on Task</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>3 hrs, 20 m</td>
</tr>
<tr>
<td><strong>Grades 4–5, ELA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 hrs</td>
</tr>
<tr>
<td>Unit Time</td>
<td>75</td>
<td>90</td>
<td>60</td>
<td>75</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Est. Time on Task</td>
<td>50</td>
<td>60</td>
<td>40</td>
<td>50</td>
<td>–</td>
<td>3 hrs, 20 m</td>
</tr>
<tr>
<td><strong>Grades 4–5, Math</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 hrs</td>
</tr>
<tr>
<td>Unit Time</td>
<td>80</td>
<td>70</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Est. Time on Task</td>
<td>55</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>3 hrs, 25 m</td>
</tr>
</tbody>
</table>
## PARCC Grades 6 – 8

<table>
<thead>
<tr>
<th></th>
<th>PBA Unit 1</th>
<th>PBA Unit 2</th>
<th>PBA Unit 3</th>
<th>EOY Unit 1</th>
<th>EOY Unit 2</th>
<th>Ttl Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades 6, 7, 8 ELA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 hrs, 45 m</td>
</tr>
<tr>
<td>Unit Time</td>
<td>75</td>
<td>90</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td></td>
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<tr>
<td>Est. Time on Task</td>
<td>50</td>
<td>60</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>3 hrs, 50 m</td>
</tr>
<tr>
<td>Math 6, 7, 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 hrs, 5 m</td>
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<tr>
<td>Unit Time</td>
<td>80</td>
<td>70</td>
<td>–</td>
<td>80</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Est. Time on Task</td>
<td>55</td>
<td>50</td>
<td>60</td>
<td>50</td>
<td></td>
<td>3 hrs, 35 m</td>
</tr>
<tr>
<td>Alg 1 and GeoH*</td>
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<td></td>
<td></td>
<td></td>
<td>5 hrs, 20 m</td>
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<tr>
<td>Unit Time</td>
<td>90</td>
<td>75</td>
<td>80</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Est. Time on Task</td>
<td>60</td>
<td>50</td>
<td>60</td>
<td>50</td>
<td></td>
<td>3 hrs, 40 m</td>
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</tbody>
</table>

Students in Algebra 1 and Geometry H take these rather than the Grade Level PARCC
## PARCC Grades 9 – 11

<table>
<thead>
<tr>
<th></th>
<th>PBA Unit 1</th>
<th>PBA Unit 2</th>
<th>PBA Unit 3</th>
<th>EOY Unit 1</th>
<th>EOY Unit 2</th>
<th>Ttl Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grades 9 – 11 ELA</strong></td>
<td>Unit Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>90</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>5 hrs, 45 m</td>
</tr>
<tr>
<td></td>
<td>Est. Time on Task</td>
<td>50</td>
<td>60</td>
<td>40</td>
<td>40</td>
<td>3 hrs, 50 m</td>
</tr>
<tr>
<td><strong>Alg 1 and GeoH</strong></td>
<td>Unit Time</td>
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<td></td>
<td>90</td>
<td>75</td>
<td>–</td>
<td>80</td>
<td>75</td>
<td>5 hrs, 20 m</td>
</tr>
<tr>
<td></td>
<td>Est. Time on Task</td>
<td>60</td>
<td>50</td>
<td>–</td>
<td>60</td>
<td>3 hrs, 40 m</td>
</tr>
<tr>
<td><strong>Alg 2</strong></td>
<td>Unit Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>90</td>
<td>75</td>
<td>–</td>
<td>90</td>
<td>75</td>
<td>5 hrs, 30 m</td>
</tr>
<tr>
<td></td>
<td>Est. Time on Task</td>
<td>60</td>
<td>50</td>
<td>–</td>
<td>60</td>
<td>3 hrs, 40 m</td>
</tr>
</tbody>
</table>
## Graduation Requirements

### Classes of 2016, 2017, 2018

<table>
<thead>
<tr>
<th>English Language Arts</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing score on PARCC ELA in Grade 9 OR Grade 10 OR Grade 11</td>
<td>Passing score on PARCC in Algebra 1 OR Geometry OR Algebra 2</td>
</tr>
<tr>
<td>Passing score on a Substitute Competency Test</td>
<td>Passing score on a Substitute Competency Test</td>
</tr>
</tbody>
</table>

- SAT Reading or Math Passing Score of 400
- ACT Reading or Math Passing Score of 16
- ASVAB–AFQT Score Passing Score of 31
- Accuplacer – Write Placer Passing Score of 8
- Accuplacer Math – Elementary Algebra Passing Score of 76

| NJDOE Portfolio Appeal | NJDOE Portfolio Appeal |
Resources

- http://www.corestandards.org/
- http://www.state.nj.us/education/
- www.achievethecore.org
- www.pta.org/4446.htm
- http://www.commoncoreworks.org/domain/114
- http://www.commoncoreworks.org/domain/149
- http://parcconline.org