PARCC: Technology Integration and Ohio's New Learning Standards

Connecting the Dots Spring Conference
Columbus March 22, 2013

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#PARCCELC
Vocabulary

- OAA/OGT → Next Generation Assessments
- CCSS/Ohio Standards → Ohio's New Learning Standards
- PARCC → Partnership for Assessment of Readiness for College and Careers
- TRT → Technology Readiness Tool
Learning Targets

• Describe the components of PARCC assessments
• Access tools for Tech Readiness
• Utilize *Evidence Centered Design* to develop assessments and integrate technology appropriately
• Evaluate resources for integrating technology aligned to PARCC design.
# Ohio’s Educator Leader Cadre

<table>
<thead>
<tr>
<th>Name</th>
<th>Region</th>
<th>Name</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sasheen Phillips</strong></td>
<td>ODE</td>
<td>Carole Katz</td>
<td>NE</td>
</tr>
<tr>
<td>Steve Kucinski</td>
<td>CE</td>
<td>Char Shryock</td>
<td>NE</td>
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<tr>
<td></td>
<td></td>
<td>Janee Moss</td>
<td>NE</td>
</tr>
<tr>
<td>Kristie Barker</td>
<td>CE</td>
<td>Ken Bernacki</td>
<td>NE</td>
</tr>
<tr>
<td>Neil Gupta</td>
<td>CE</td>
<td>Tracy Yarchi</td>
<td>SW</td>
</tr>
<tr>
<td>Colleen Ruggieri</td>
<td>CE</td>
<td>Ann Drake</td>
<td>SW</td>
</tr>
<tr>
<td>Bill Wise</td>
<td>CE</td>
<td>Catherine Schulte</td>
<td>SW</td>
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<tr>
<td>Joyce Malainy</td>
<td>CE</td>
<td>Sylvia St. Cyr</td>
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<tr>
<td>Denise Brown</td>
<td>NW</td>
<td>Elaine Barkan</td>
<td>SE</td>
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<tr>
<td>Nancy Sattler</td>
<td>NW</td>
<td>Cindy Miller</td>
<td>SE</td>
</tr>
<tr>
<td>Debra Gallagher</td>
<td>NW</td>
<td>Tricia Ebner</td>
<td>SE</td>
</tr>
</tbody>
</table>
Partnership for Assessment of Readiness for College and Careers (PARCC)
What is Different about PARCC’s Development Process?

• PARCC states first developed the Model Content Frameworks to provide guidance on key elements of excellent instruction aligned with the Standards.

• Frameworks informed the assessment blueprint design

So, for the first time. . .

• PARCC is communicating in the same voice to teachers as it is to assessment developers!

• PARCC is designing the assessments around the exact same critical content the standards expect of teachers and students.
The PARCC Goals

1. Create high-quality assessments
2. Build a pathway to college and career readiness for all students
3. Support educators in the classroom
4. Develop 21st century, technology-based assessments
5. Advance accountability at all levels
6. Build an assessment that is sustainable and affordable
Timeline Through First PARCC Administration in 2014-2015

**PARCC Assessment Implementation**

**PARCC Tools & Resources**
- Design of PD Modules
- Design of Student Score Reports
- College-ready tools released
- Diagnostic assessments released
- Summative PARCC Assessments

**2013-2014 More Prototypes and Assessment Guidance Shared**

**2013-2014**
- New Technology Gap Analysis Tool and Test Window Guidance released
- Final Grade Level Descriptors Released

**Spring 2013**
- Limited Pilot/field testing begins
- Final Draft Accommodation Policy Released

**Summer 2013**
- Final Grade Level Descriptors Released

**Fall 2013**
- Tech Revision 3.0 with minimum bandwidth

**Spring 2014**
- Expanded field testing and possible practice tests

**Summer 2014**
- Optional Diagnostic and Midyear PARCC Assessments

**Fall 2014**
- Standard Setting in Summer 2015

**Winter 2015**
- Standard Setting in Summer 2015

**Spring 2015**
- Optional Diagnostic and Midyear PARCC Assessments
What Technology Do We Need?
Planning for technology renovation and addition is like planning for a building expansion!

Plan not just for the immediate need, but predicted future need.
### Calculate an estimate for the level of simultaneous Internet usage that will be taking place in the school concurrent with assessment administration.

<table>
<thead>
<tr>
<th>Type of Use</th>
<th>Number of simultaneous users engaged in activity</th>
<th>Average bandwidth demand in Kbps (for reference)</th>
<th>Bandwidth In Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>500</td>
<td>500</td>
<td>0</td>
</tr>
<tr>
<td>Web Browsing</td>
<td>500</td>
<td>250</td>
<td>0</td>
</tr>
<tr>
<td>Online Learning (not interactive)</td>
<td>250</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Online Learning (interactive/single player)</td>
<td>1000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Audio Streaming</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student Content Creation</td>
<td>150</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accessing School/District Portal</td>
<td>150</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Video Streaming (standard quality)</td>
<td>250</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Video Streaming (high-definition)</td>
<td>1000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Video Conferencing (standard quality)</td>
<td>150</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Video Conferencing (high-definition)</td>
<td>150</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>VoIP</td>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note:** Average bandwidth demands of devices used by the State Educational Technology Broadband Impedance, as well as [ETSOL](http://etsolkit.org/etsolkit/) Calculator.

### PARCC Rule of Thumb:

<table>
<thead>
<tr>
<th>Students per device for all tested grades</th>
<th>At the largest grade levels: 2 students per device</th>
<th>At the largest grade levels: 3 students per device</th>
<th>1 student per device for all tested students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices</td>
<td>End Of Year Assessment</td>
<td>End Of Year Assessment</td>
<td>End Of Year Assessment</td>
</tr>
<tr>
<td>Estimated Devices Needed For This Model</td>
<td>#DIV/0</td>
<td>#DIV/0</td>
<td>#DIV/0</td>
</tr>
<tr>
<td>Reported Available Devices</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Additional Devices Needed To Meet Target Ratio</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>Maximum Estimated Need (Administrated Online) Bandwidth per Test Book at Target Device</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Minimum Estimated Need (Administrated Online) Bandwidth per Test Book at Target Device</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
FAQs

- Designed for building administrators to identify technology gaps - in hardware or bandwidth.
- PARCC Performance Based Assessments and End of Year/Course exams will be web-based.
- Consider testing window, number of students, number of "testing" computers available, bandwidth demand, testing space and student to computer ratio.
- Based on total time predictions -
  - 8 hours on PBA and EOC exams in ELA/literacy and math annually in 3rd grade
  - Just over 9 hours to assess those subjects gr 4/5
  - A little less than 9 ½ hours in middle school
  - A little more than 9 ½ hours in high school
- Schools will continue to make special accommodations for children with disabilities who have specific
Number of Sessions

• PARCC Summative Assessments will be done in 9 sessions per grade level.
• Performance Based Assessment component will require five sessions
  o 3 sessions for ELA/literacy
  o 2 sessions for mathematics.
• The End of Year Assessment component at each grade level will require four sessions
  o 2 sessions for ELA/literacy
  o 2 sessions for mathematics.

Does not include ODE Science and Social Studies Components
Maximum Testing Window

- Maximum of 20 school days to administer the Performance Based Assessment (PBA) components for ELA/literacy and mathematics
- Maximum of 20 school days to administer the End of Year Assessment components (EOY) for ELA/literacy and mathematics.
- *Schools will be able to complete administration of the tests in fewer days, if they have sufficient capacity to administer computer-based assessments to large numbers of students simultaneously.*
Minimum Testing Window

• The assumption is that each individual student will not take more than one session per day.
• The default minimum testing window in the Planning Tool is 5 school days for the Performance Based Assessment (PBA) components and 5 school days for the End of Year Assessment components (EOY).
• There will be 2 testing sessions each day for the 20 day windows.
Bandwidth

• **Final bandwidth will be determined in October of 2013**

• For planning ONLY maximum bandwidth demand of 100 kbps for online, active connection to the Internet throughout the test

• 30 kbps for administration of tests using caching approaches (browser or proctor caching)

• PARCC’s final bandwidth requirements may be lower than the estimated values used in the Capacity Planning Tool, but are not likely to be greater than 100 kbps (online) / 30 kbps (caching)
TRT Description

The TRT:

- is a secure, **Web-based tool**;
- will collect (**automatically and manually**) information;
- will help determine **readiness** for delivering online assessments;
- will provide a **gap analysis**; and
- will provide **quantitative data** to support local, state, and national efforts toward **transitioning** to consortia and state-developed assessment systems.

District Technology Staff should be regularly updating the TRT as district technology resources are updated or added.
## PARCC Technology Guidance

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Operating System</th>
<th>Networking</th>
<th>Device Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1GHz or faster processor</td>
<td>• Windows 7</td>
<td>• Wired or wireless Internet connection</td>
<td>• Desktops, laptops, netbooks, thin client, and tablets that meet the hardware, operating system, and networking specifications</td>
</tr>
<tr>
<td>• 1GB RAM or greater memory</td>
<td>• Mac 10.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 9.5 inch(10 inch class)or larger screen size</td>
<td>• Linux(Ubuntu 11.10, Fedora 16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1024 x 786 or better screen resolution</td>
<td>• Chrome OS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Apple iOS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Android 4.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[http://www.parcconline.org/technology](http://www.parcconline.org/technology)
How do we prepare?

*Dealing with the "yeahbuts" and "wecants"

- AAGH!!! We won't have enough computers
- We don't know the cut scores
- We haven't seen a practice test
- Kids can't keyboard in 3rd grade
- These questions look hard
- Did we mention not enough technology?
What are the benefits?

- Immediate results on the End of Year tests.
- Built in accommodations
- Engaging assessments that will help learners really show what they know.
- No more paper/pencil books that have to be shipped, counted, locked up
- Larger testing window
- Technology enhanced items allow for multiple answers, modeling of thinking, use of simulations, embedded video or sound
- Test questions will provide scaffolding for students.
- Higher expectations
- Large item bank
PARCC’s Fundamental Advance

PARCC is designed to reward quality instruction aligned to the Standards, so the assessment is worthy of preparation rather than a distraction from good work.
Paradigm Shift

Teaching To The Testing

Testing To The Teaching
Ohio’s NLS Three Common Instructional Shifts - Ohio Model Curriculum

1. Build a deep understanding of content and effectively apply learning within and across disciplines.

2. Craft responses based on evidence including: demonstrate understanding, explain reasoning, and/or justify a position.

3. **Use technology appropriately, strategically and ethically in academic and real-world settings.**
Using Technology to Advance Assessment and the Educational Shifts

Technology enhancements supporting accessibility (e.g., the ability to hover over a word to see and/or hear its definition, etc.)

Transformative formats making possible what can not be done with traditional paper-pencil assessments (e.g., simulations to improve a model, game-like environments, drawing/constructing diagrams or visual models, etc.)

Getting beyond the bubble and avoiding drawbacks of traditional selected response such as guessing or choice elimination.
PARCC’s Core Commitments to Assessment Quality - Mathematics

- **Focus**: PARCC assessments will focus strongly on where the Standards focus. Students will have more time to master concepts at a deeper level.

- **Problems worth doing**: Multi-step problems, conceptual questions, applications, and substantial procedures will be common, as in an excellent classroom.

- **Better Standards Demand Better Questions**: Instead of reusing existing items, PARCC will develop custom items to the Standards.

- **Fidelity to the Standards (now in Teacher’s hands)**: PARCC evidences are rooted in the language of the Standards so that expectations remain the same in both instructional and assessment settings.
PARCC’s Core Commitments to ELA/Literacy Assessment Quality

**Texts Worth Reading:** The assessments will use authentic texts worthy of study instead of artificially produced or commissioned passages.

**Questions Worth Answering:** Sequences of questions that draw students into deeper encounters with texts will be the norm (as in an excellent classroom), rather than sets of random questions of varying quality.

**Better Standards Demand Better Questions:** Instead of reusing existing items, PARCC will develop custom items to the Standards.

**Fidelity to the Standards (now in Teachers’ hands):** PARCC evidences are rooted in the language of the Standards so that expectations remain the same in both instructional and assessment settings.
Technology Enhanced Items

**Evidence Based Selected Response (ESBR)**
- Paired questions- traditional multiple choice and an "evidence" question
- May have multiple correct answers

**Technology Enhanced Constructed Response (TECR)**
- Students will be able to select words or phrases in reading passages or math problems that were used to develop an argument or answer.
- Drag and drop words and numbers, make a model, run simulations - as a part their larger answer.

**Prose Constructed Response (PCR)**
- May be based on multiple authentic text passages
- Require students to go "back into the text"
- Require analysis, synthesis, argument
- Will be supported by ESBR questions
### Technology-enhanced & Innovative Items That Will Be On the Assessments

<table>
<thead>
<tr>
<th>Most Constrained</th>
<th>Least Constrained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fully Selected</strong></td>
<td><strong>Fully Constructed</strong></td>
</tr>
<tr>
<td><strong>Intermediate Constraint Item Types</strong></td>
<td><strong>Intermediate Constraint Item Types</strong></td>
</tr>
<tr>
<td><strong>Less Complex</strong></td>
<td><strong>More Complex</strong></td>
</tr>
<tr>
<td>1. Multiple Choice</td>
<td>1D. Multiple Choice with New Media Distractors</td>
</tr>
<tr>
<td>1A. True/False</td>
<td>1D. Multiple Choice with New Media Distractors</td>
</tr>
<tr>
<td>1B. Alternate Choice</td>
<td>2C. Multiple Answer</td>
</tr>
<tr>
<td>1C. Conventional Multiple Choice</td>
<td>3C. Ranking and Sequencing</td>
</tr>
<tr>
<td>1D. Multiple Choice with New Media Distractors</td>
<td>4C. Limited Figural Drawing</td>
</tr>
<tr>
<td>2A. Multiple True/False</td>
<td>3A. Matching</td>
</tr>
<tr>
<td>2B. Yes/No with Explanation</td>
<td>3B. Categorizing</td>
</tr>
<tr>
<td>2C. Multiple Answer</td>
<td>3D. Assembling Proof</td>
</tr>
<tr>
<td>3A. Matching</td>
<td>4A. Interlinear</td>
</tr>
<tr>
<td>3B. Categorizing</td>
<td>4B. Scoring and Sentence Completion</td>
</tr>
<tr>
<td>3C. Ranking and Sequencing</td>
<td>5A. Single Numerical Constructed</td>
</tr>
<tr>
<td>4A. Interlinear</td>
<td>5B. Short-Answer and Sentence Completion</td>
</tr>
<tr>
<td>4B. Scoring and Sentence Completion</td>
<td>6A. Open-Ended Multiple Choice</td>
</tr>
<tr>
<td>5A. Single Numerical Constructed</td>
<td>6B. Figural Constructed Response</td>
</tr>
<tr>
<td>6A. Open-Ended Multiple Choice</td>
<td>7B. Demonstration, Experiment, Performance</td>
</tr>
<tr>
<td>7A. Project</td>
<td>7C. Discussion, Interview</td>
</tr>
<tr>
<td>7B. Demonstration, Experiment, Performance</td>
<td>7D. Diagnosis, Teaching</td>
</tr>
</tbody>
</table>
PARCC Assessment Design

English Language Arts/Literacy and Mathematics, Grades 3-11

Flexible

Summative Components

Diagnostic Assessment

Mid-Year Assessment

Performance-Based Assessment

End-of-Year/End-of-Course Assessment

Summative assessment for accountability

Formative assessment

Speaking & Listening Assessment

Source: Center for K-12 at ETS
## Assessment Transition

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>3-8 -OAA</td>
<td>3-8 -OAA aligned to existing and new standards</td>
<td>3-8- PARCC ELA and Math</td>
<td>Web-based</td>
</tr>
<tr>
<td>Grade 10- OGT</td>
<td>Grade 10- OGT aligned to existing and new standards</td>
<td>3-8 State tests – Soc Stud. And Science</td>
<td>Two part summative (PBA and EOC/EOY)</td>
</tr>
<tr>
<td>New Alternative Assessment for Severe Cognitively Disabled Students</td>
<td>LEA developed EOC exams Am Hist and Am Govt (SB 165)</td>
<td>HS- PARCC EOC exams ELA 9,10,11 and Alg1 Geo and Alg2</td>
<td>Diagnostic and Mid Year- PARCC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS- ODE Developed Bio, Phys Science Am Hist and Am Govt EOC exams</td>
<td>Off Year PBA- State Developed in Soc Studies and Science</td>
</tr>
</tbody>
</table>

10th Grade College and Career Readiness - Fall
Draft Accommodations

Currently open for public comment

Writing accommodations - use of scribes, word prediction

• All accommodations will have specific eligibility criteria and will be limited to students who meet these criteria.
• A full range of other instructional accommodations will be provided.
• [http://www.parcconline.org/open-policies-public-comment](http://www.parcconline.org/open-policies-public-comment)
How does technology fit?

Technology, CCSS and PARCC
Evidence-Centered Design (ECD) in the Classroom

Daily Learning Objective
Design begins with the inferences (claims) we want to make about students—should be connected clearly to the CCSS/State Standards

Classroom Work
In order to support claims, we must gather evidence---design of student classroom work should allow us to evaluate whether each student has met the daily learning objective

Classroom Activities
Activities (tasks) are designed to elicit specific evidence from students in support of claims

ECD can inform a deliberate and systematic approach to instruction that will help to ensure daily classroom work leads to all students meeting the CCSS.
Understanding the Claims

ELA/Literacy for Grades 3–11
“On Track” Master Claim/Reporting Category: Students are “on track” to college and career readiness in ELA/Literacy.

MC: Reading Complex Text
Students read and comprehend a range of sufficiently complex texts independently.

Research
Students build and present knowledge through integration, comparison, and synthesis of ideas.

MC: Writing
Students write effectively when using and/or analyzing sources.

SC: Vocab. Interpretation and Use (RL/RLX.4 and L.X.4-6)
Students use context to determine the meaning of words and phrases.

SC: Reading Literature (RLX.1-10)
Students demonstrate comprehension and draw evidence from readings of grade-level, complex literary text.

SC: Reading Informational Text (RLX.1-10)
Students demonstrate comprehension and draw evidence from readings of grade-level, complex informational texts.

SC: Written Expression (W.X.1-10)
Students produce clear and coherent writing in which the development, organization, and style are appropriate to the task, purpose, and audience.

Note: PARCC has not yet determined if the Research Claim will be a scaled major claim or a non-scaled sub-claim.

Evidences

Standards
MC Mathematics
The student solves grade-level/course-level problems in mathematics as set forth in the Standards for Mathematical Content with connections to the Standards for Mathematical Practice.

SC: A
The student solves problems involving the Major Content for her grade/course with connections to the Standards for Mathematical Practice.

SC: B
The student solves problems involving the Additional and Supporting Content for her grade/course with connections to the Standards for Mathematical Practice.

SC: C
The student expresses grade/course-level appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others and/or attending to precision when making mathematical statements. (MP 3 and MP 6)

SC: D
The student solves real-world problems (MP 4) with a degree of difficulty appropriate to the grade/course by applying knowledge and skills articulated in the standards for the current grade/course (or, for more complex problems, knowledge and skills articulated in the standards for previous grades/courses), engaging particularly in the Modeling practice, and where helpful making sense of problems and persevering to solve them (MP.1), reasoning abstractly and quantitatively (MP.2), using appropriate tools strategically (MP.5), looking for and making use of structure (MP.7), and/or looking for and expressing regularity in repeated reasoning (MP.8).

SC: E
Fluency in applicable grades (3-6): The student demonstrates fluency as set forth in the Standards for Mathematical Content in her grade.

Evidence SC A
Evidence SC B
Evidence SC C
Evidence SC D
Evidence SC E

Standards
Standards
Standards
Standards
Standards
Language of Claim....Evidence Centered Design in the Classroom

• What student products will allow teachers to say with assurance that the student has mastered the content standard...what do the products look like?

• What technology tools can we utilize to allow students to produce the evidence we are looking for?

• What evidence can we point to, highlight or underline in a student response that we will be looking for?

• What are the classroom activities necessary to get the students to this level of mastery for the assessment?

• Have we designed tasks to elicit specific evidence from students to support our claims?
PARCC Vocab In Context

**SAMPLE ITEM**

**Part A**
What does the word “regal” mean as it is used in the passage?

- a. generous
- c. kingly
- b. threatening
- d. uninterested

**Part B**
Which of the phrases from the passage best helps the reader understand the meaning of “regal?”

- a. “wagging their tails as they awoke”
- c. “their sounds and movements expressed goodwill”
- b. “the wolves, who were shy”
- d. “with his head high and his chest out”
Part A
Which of the following sentences best states an important theme about human behavior as described in Ovid’s “Daedalus and Icarus”?

a. Striving to achieve one’s dreams is a worthwhile endeavor.
b. The thoughtlessness of youth can have tragic results.
c. Imagination and creativity bring their own rewards

Part B
Select three pieces of evidence from Ovid’s “Daedalus and Icarus” that support the answer to Part A.

a. "and by his playfulness retard the work/his anxious father planned" (lines 310-311)
b. "But when at last/the father finished it, he poised himself" (lines 312-313).
c. "he fitted on his son the plumed wings/ with trembling hands, while down his withered cheeks/the tears were falling" (lines 327-329).
d. “Proud of his success/the foolish Icarus forsook his guide” (lines 348-349)."
e. "and, bold in vanity, began to soar/rising upon his wings to touch the skies"
f. "and as the years went by the gifted youth/began to rival his instructor’s art "
g. "Wherefore Daedalus/enraged and envious, sought to slay the youth "
h. "The Partridge hides/in shaded places by the leafy trees...for it is mindful of its former fall "
**SAMPLE ITEM**

**Student Directions**

Based on the information in the text “Biography of Amelia Earhart,” write an essay that summarizes and explains the challenges Earhart faced throughout her life.

Remember to use textual evidence to support your ideas.

**Answer:**

<table>
<thead>
<tr>
<th>Font Size...</th>
<th>Font Family.</th>
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</thead>
<tbody>
<tr>
<td>B</td>
<td>I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Writing</th>
<th>Written Expression</th>
<th>Development of Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student response addresses the prompt and provides <strong>effective and comprehensive development of the claim, topic and/or narrative elements</strong> by using clear and convincing reasoning, details, text-based evidence, and/or description; the development is consistently appropriate to the task, purpose, and audience.</td>
<td>The student response addresses the prompt and provides effective development of the claim, topic and/or narrative elements by using clear reasoning, details, text-based evidence, and/or description; the development is largely appropriate to the task, purpose, and audience.</td>
<td>The student response addresses the prompt and provides some development of the claim, topic and/or narrative elements minimally by using limited reasoning, details, text-based evidence and/or description; the development is limited in its appropriateness to the task, purpose, and/or audience.</td>
</tr>
</tbody>
</table>

| The student response is underdeveloped and therefore inappropriate to the task, purpose, and/or audience. |
Below are three claims that one could make based on the article “Earhart’s Final Resting Place Believed Found.”

<table>
<thead>
<tr>
<th>Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earhart and Noonan lived as castaways on Nikumaroro Island.</td>
</tr>
<tr>
<td>Earhart and Noonan’s plane crashed into the Pacific Ocean.</td>
</tr>
<tr>
<td>People don’t really know where Earhart and Noonan died.</td>
</tr>
</tbody>
</table>

**Part A**
Highlight the claim that is supported by the most relevant and sufficient evidence within “Earhart’s Final Resting Place Believed Found.”

**Part B**
Click on two facts within the article that best provide evidence to support the claim selected in Part A.
Numbers of stadium seats (grade 4)

Baseball stadiums have different numbers of seats. Drag the tiles to arrange the stadiums from least to greatest number of seats.

San Francisco Giants' stadium: 41,915 seats
Washington Nationals' stadium: 41,888 seats
San Diego Padres' stadium: 42,445 seats

Write your answer to the following problem in your answer booklet.

San Francisco Giants' stadium: 41,915 seats
Washington Nationals' stadium: 41,888 seats
San Diego Padres' stadium: 42,445 seats

Compare these statements from two students.

Jeff said, “I get the same number when I round all three numbers of seats in these stadiums.”

Sara said, “When I round them, I get the same number for two of the stadiums but a different number for the other stadium.”

Can Jeff and Sara both be correct? Explain how you know.
The graph of the quadratic function $f(x) = 2(x - 5)^2 + 6$ is shown.

A new function, $p(x)$, is created from the existing function, such that $p(x) = -f(x)$. You may use the coordinate plane and the sliders to show the graph of the new function if you would like. The graph will not be scored.

Fill in the blanks to give the coordinates of points $D'$, $E'$, and $F'$ that lie on the graph of the new function $p(x)$ and that are the images of points $D$, $E$, and $F$ that lie on the graph of $f(x)$.

$D'(\underline{\quad}, \underline{\quad})$

$E'(\underline{\quad}, \underline{\quad})$

$F'(\underline{\quad}, \underline{\quad})$
"Stop assigning tools and start assigning tasks."

Mark Prensky
Student Technology Skills - For the PARCC Assessments

- Keyboarding
- Cutting and Pasting
- Highlighting
- Using on-screen calculator
- Dragging and Dropping items
- Manipulating a graph
- Running a simulation to generate data
- Changing font size and background color
- Clicking on multiple correct answers
- Utilizing spreadsheets, documents
- Use a secure browser
Technology Shifts-ELA

• What opportunities are there to work on keyboarding, writing, and editing digitally? This includes developing basic skills like cut and paste, adding comments, using revision history and citing digital resources.

• What opportunities are there to work with a group to build reading comprehension by listening to and commenting on the arguments and reflections of others...in all content areas? This may include digital publishing and digital storytelling.

• How are a variety of fiction, non-fiction materials and primary source materials that create a continuum of complex texts for student reading being used...in all content areas? Are they available digitally?

• What strategies/tools are available to help students build and organize knowledge...in all content areas?

• How can tech tools help students to acquire/apply vocabulary...in context...in all content areas?

• How can students use technology to write narratively and argumentatively, citing evidence from text when appropriate?
Technology Shifts- STEM

- How is data being collected, shared and analyzed?
- What tools are available for students to use simulations and manipulatives to model mathematical or scientific thinking?
- How can students build mathematical fluency through the use of learning games?
- How can students access real world data or work collaboratively to solve real world problems through the use of technology?
- How can students utilize technology to conduct research and design their own experiments?
Prototype Questions - Math

- CCSS Toolbox
  http://www.ccsstoolbox.com/parcc/PARCCPrototype_main.html

- PARCC Prototype Homepage
  http://www.parcconline.org/samples/item-task-prototypes

- Illustrative Math Project Homepage
  http://commoncoretools.me/2011/01/16/the-illustrative-mathematics-project/
Prototype Questions/Performance Tasks/Manipulatives - Social Studies and Science

- ODE Social Studies and Science  
  [http://demo.tds.airast.org/ohio/](http://demo.tds.airast.org/ohio/) (Need to use Firefox Browser)
- PALS Project Performance Tasks (science)  
- PHET Project University of Colorado  
  [http://phet.colorado.edu/](http://phet.colorado.edu/)
- Center for Engineering/Science Innovation  
  [http://ciese.org/currichome.html](http://ciese.org/currichome.html)
- Demonstrations Wolfram  
  [http://demonstrations.wolfram.com](http://demonstrations.wolfram.com)
- Beyond the Bubble - New Generation of History Assessment (Stanford Project)  
- Reading Like A Historian (Stanford Project)  
  [http://sheg.stanford.edu/rlh](http://sheg.stanford.edu/rlh)
Prototype Questions - ELA

- PARCC Prototypes
  http://www.parcconline.org/samples/item-task-prototypes
Resource for Performance Tasks

• Sample Performance Tasks [http://sde.state.ok.us/curriculum/CommonCore/pdf/CollegeReadinessMath.pdf](http://sde.state.ok.us/curriculum/CommonCore/pdf/CollegeReadinessMath.pdf)

• Insidemathematics.org (works in firefox and chrome) [http://insidemathematics.org/](http://insidemathematics.org/)


• Ohio Resource Center [stella stunners problems](http://map.mathshell.org/materials/tasks.php)

• Mathematical Assessment Project (MAP) [http://map.mathshell.org/materials/tasks.php](http://map.mathshell.org/materials/tasks.php)
Resource for Performance Tasks

- ELA Exemplar Texts and Sample Performance Tasks
  http://www.maine.gov/education/lres/ela/ccssspt.html

- ELA Teachers College Reading and Writing Project - NYC Dept of Ed. Tasks are available for classroom use only.
  http://readingandwritingproject.com/resources/assessments/performance-assessments.html
Interactive Boards Lessons

• Sample Smartboard Activities
  http://www1.center.k12.mo.us/edtech/sb/templates.htm
• Scholastic Interactive Board lessons
  http://www.scholastic.com/browse/collection.jsp?id=190
• University of Missouri eMints
  http://ethemes.missouri.edu/themes/1558?locale=en

Online Manipulatives

• Houghton Mifflin Online Tools
  http://www.eduplace.com/kids/mw/
• Illuminations Website (NCTM)
  http://illuminations.nctm.org/ActivitySearch.aspx
• National Library of Virtual Manipulatives
  http://nlvm.usu.edu/en/nav/vlibrary.html
• Google Graphing Calculator
• Wolfram Demonstrations http://demonstrations.wolfram.com/
• SAS Curriculum Pathways
  http://www.sascurriculumpathways.com
Resources For Integrating Technology - ELA

**Digital Writing Resources**
- Google Drive
- SAS Curriculum Pathways - Writing Reviser

**Text Complexity**
- Lexile Scores and Resources (find a book or lexile analyzer)

**Interactive Reading and Writing Tools**
- ReadWriteThink (NCTE) [http://www.readwritethink.org/](http://www.readwritethink.org/)
- Smartboard Tools - Scholastic
General Integration Tools

• Ohio Resource Center  http://ohiorc.org/
• PBS Digital Resources  http://www.pbslearningmedia.org
• Thinkfinity.Org  http://thinkfinity.org/community/thinkfinity-resources
• CK12.Org  Build Textbooks  http://ck12.org/
• DIIGO  Share, highlight, organize  http://www.diigo.com/
• SAS Curriculum Pathways  http://www.sascurriculumpathways.com
• InfOhio Research Tools  http://go.infohio.org/
• Google Books  http://books.google.com/
• Archive.org  Books, video, radio, tv  http://archive.org/
Char Shryock – Bay Village Schools
char.shryock@bayschoolsohio.org
http://iteachbay.blogspot.com
twitter @edtechgirl
#PARCCELC
Connect with ODE

Ohio Teachers’ Homeroom

OhioEdDept

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