

Township of Union Public School District High School English & Math PARCC Presentation

Mr. Mauriello
Math Supervisor, 6 – 12

Ms. Malyska
English Supervisor, 6 - 12

November 2014

Test Dates



- Performance Based Assessment
March 2 through March 27
- End of Year Assessment
April 20 through May 15

A Strong Foundation: The Common Core State Standards



- Nearly every state in the nation is working individually and collectively to improve its academic standards and assessments to ensure students graduate with the knowledge and skills most demanded by college and careers
- The Common Core State Standards in English language arts/literacy and mathematics were created by educators around the nation

What's Next?

Common Assessments



- **Common Core State Standards** are critical, but it is just the first step
- **Common assessments** aligned to the Common Core will help ensure the new standards truly reach every classroom

What Is PARCC?



The Partnership for Assessment of Readiness for College and Careers:

- Made up of **19 states**
- Developing common, high-quality **math** and **English language arts (ELA) tests for grades 3–11**
 - Computer-based and linked to what students need to know for college and careers
 - For use starting in the 2014–15 school year



PARCC Priorities



1. Determine whether students are **college and career ready or on track**
2. Connect to the **Common Core State Standards**
3. Measure the **full range of student performance**, including that of high- and low-achieving students
4. Provide educators **data throughout the year** to inform instruction
5. Create innovative **21st century, technology-based assessments**
6. Be **affordable and sustainable**

How Will PARCC Be Different?



Students: Will know if they are **on track** to graduate ready for college/careers

Teachers: Will have access to **timely data** to guide learning and instruction

Parents: Will have **clear and timely information** about student progress

States: Will have **valid results** that are comparable across borders

Higher Expectations



ELA/Literacy

Read sufficiently complex texts independently

Write effectively to sources

Build and present knowledge through research

Math

Solve problems: content and mathematical practice

Reason mathematically

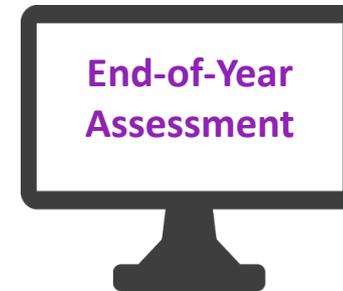
Model real-world problems

Have fluency with mathematics

Two Required Assessments Yield Overall Score



- After 75 percent of the school year
- Extended tasks, applications of concepts and skills
 - **ELA/literacy:** Writing effectively when analyzing text, research simulation
 - **Math:** Solving multistep problems requiring abstract reasoning, precision, perseverance and strategic use of tools



- After 90 percent of the school year
- Innovative, short-answer items
 - **ELA/literacy:** Reading comprehension
 - **Math:** Short items that address both concepts and skills

How is the test scored?



- Results from the Performance Based Assessment (PBA) and End-of-year Assessment (EOY) will be combined to get a final score
- The score will be classified into one of five levels:
 - Level 5 (demonstrating distinguished command)
 - Level 4
 - Level 3
 - Level 2
 - Level 1 (demonstrating minimal command)
- Results should be received in a timely manner

ELA Test Sections



- Research Simulation Task
 - 90 minutes
- Narrative Task
 - 60 minutes
- Literary Analysis Task
 - 75 minutes

Research Simulation Task



- Students will analyze an informational topic presented through several articles or multimedia stimuli, the first text being an anchor text that introduces the topic.
- Students will engage with the texts by answering a series of questions and synthesizing information from multiple sources in order to write two analytic essays.

Narrative Task



- The Narrative Task broadens the way in which students may use this type of writing. Narrative writing can be used to convey experiences or events, real or imaginary.
- In this task, students may be asked to write a story, detail a scientific process, write a historical account of important figures, or to describe an account of events, scenes or objects, for example.

Literary Analysis Task



- Students will read complex text closely, a skill that research reveals as the most significant factor differentiating college-ready from non-college-ready readers.
- Students will carefully consider literature worthy of close study and compose an analytic essay.

ELA - Question Types



- Evidence Based Selected Response
- Technology Enhanced Constructed Response
- Prose Constructed Response

Evidence Based Selected Response



Evidence-Based Selected Response (EBSR)—
Combines a traditional selected-response question with a second selected-response question that asks students to show evidence from the text that supports the answer they provided to the first question.

Evidence Based Selected Response

Sample 1—Part A



In “Daedalus and Icarus,” what do the lines “**he turned his mind to arts unknown / and nature unrevealed**” (lines 9-10) imply about Daedalus and his invention?

- a) that his invention will bring him wealth and fame
- b) that his invention will be something beyond common understanding*
- c) that the primary motive for his invention is revenge
- d) that he is nervous about the success of his invention

Evidence Based Selected Response

Sample 1—Part B



Which quotation provides the **best** support for the answer to Part A?

- a) “But Daedalus abhorred the Isle of Crete— / and his long exile on that sea-girt shore, / increased the love of his own native place.” (lines 1-3)
- b) “While he was working, his son Icarus, / with smiling countenance and unaware / of danger to himself, perchance would chase / the feathers, ruffled by the shifting breeze, / or soften with his thumb the yellow wax,” (lines 17-21)
- c) “... ‘My son, I caution you to keep / the middle way, for if your pinions dip / too low the waters may impede your flight;’” (lines 30-32)
- d) “Beneath their flight, / the fisherman while casting his long rod, / or the tired shepherd leaning on his crook, / or the rough plowman as he raised his eyes, / astonished might observe them on the wing, / and worship them as Gods.” (lines 50-55)*

Technology-Enhanced Constructed Response



Technology-Enhanced Constructed Response (TECR)—

Uses technology to capture student comprehension of texts in authentic ways that have been difficult to score by machine for large scale assessments (e.g., drag and drop, cut and paste, shade text, move items to show relationships).

Technology Enhanced Constructed Response

Sample 1—Part A



Select the claim that both Abigail and Adams make in their letters and drag it into the box labeled “CLAIM.”

Providence determines which side will win in a conflict.

It is human nature that people who have control will tend to turn toward bad behavior rather than good behavior.*

All people, regardless of gender or position, should have their rights protected.

People who have oppressed others are less likely to desire freedom than those who have not oppressed others.

CLAIM

Technology Enhanced Constructed Response

Sample 1—Part B



Choose two quotations, one from each letter, that provide evidence for the claim made by both Abigail and John Adams. Drag each quotation into the appropriate box.

Quotations from Abigail's Letter to John Adams	Quotations from John's Letter to Abigail Adams
1. "Of this I am certain, that it is not founded upon that generous and Christian principle of doing to others as we would that others should do unto us." (paragraph 2)	5. "It is the will of Heaven that the two countries should be sundered forever." (paragraph 2)
2. "...in the new code of laws which I suppose it will be necessary for you to make, I desire you would remember the ladies..." (paragraph 7)	6. "The people will have unbounded power, and the people are extremely addicted to corruption and venality..." (paragraph 2)*
3. "Remember, all men would be tyrants if they could." (paragraph 7)*	7. "Time has been given for the whole people maturely to consider the great question of independence..." (paragraph 4)
4. "...regard us then as beings placed by Providence under your protection..." (paragraph 8)	8. "This will cement the union, and avoid those heats...which might have been occasioned by such a declaration six months ago." (paragraph 4)

Evidence from John Adam's Letter

Evidence from Abigail Adam's Letter

Prose Constructed Response



Prose Constructed Responses (PCR)—

Elicits evidence that students have understood a text or texts they have read and can communicate that understanding well both in terms of written expression and knowledge of language and conventions. There are three of these items of varying types on each annual performance-based assessment; the Literary Analysis Task, the Research Simulation Task, and the Narrative Task.

Prose Constructed Response

Research Simulation Task



Both John and Abigail Adams believed strongly in freedom and independence. However, their letters suggest that each of them understood these terms differently based on their experiences.

Write an essay that explains their contrasting views on the concepts of freedom and independence. In your essay, make a claim about the idea of freedom and independence and how John and Abigail Adams add to that understanding and/or illustrate a misunderstanding of freedom and independence. Support your response with textual evidence and inferences drawn from all three sources.

Prose Constructed Response

Narrative Task



In the passage, the author developed a strong character named Miyax. Think about Miyax and the details the author used to create that character. The passage ends with Miyax waiting for the black wolf to look at her.

Write an original story to continue where the passage ended. In your story, be sure to use what you have learned about the character Miyax as you tell what happens to her next.

Prose Constructed Response

Literary Analysis Task



Use what you have learned from reading “Daedalus and Icarus” by Ovid and “To a Friend Whose Work Has Come to Triumph” by Anne Sexton to write an essay that provides an analysis of how Sexton transforms “Daedalus and Icarus.”

Develop your claim(s) of how Sexton transforms “Daedalus and Icarus” with evidence from both texts. As a starting point, you may want to consider what is emphasized, absent, or different in the two texts, but feel free to develop your own focus for analysis.

ELA Rubric



GRADES 6-11
CONDENSED SCORING RUBRIC FOR PROSE CONSTRUCTED RESPONSE ITEMS
(Revised July 29, 2014)*

Research Simulation Task and Literary Analysis Task

Construct Measured	Score Point 4	Score Point 3	Score Point 2	Score Point 1	Score Point 0
Reading Comprehension of Key Ideas and Details	The student response demonstrates full comprehension of ideas stated explicitly and inferentially by providing an accurate analysis and supporting the analysis with effective and convincing textual evidence.	The student response demonstrates comprehension of ideas stated explicitly and/or inferentially by providing a mostly accurate analysis, and supporting the analysis with adequate textual evidence.	The student response demonstrates basic comprehension of ideas stated explicitly and/or inferentially by providing a generally accurate analysis and supporting the analysis with basic textual evidence.	The student response demonstrates limited comprehension of ideas stated explicitly and/or inferentially by providing a minimally accurate analysis and supporting the analysis with limited textual evidence.	The student response demonstrates no comprehension of ideas by providing inaccurate or no analysis and little to no textual evidence.

How long is the Math test?



Algebra I & Geometry

	PBA Unit 1	PBA Unit 2	EOY Unit 1	EOY Unit 2
Unit Time	90	75	80	75
Est Time on Task	60	50	60	50

Algebra II

	PBA Unit 1	PBA Unit 2	EOY Unit 1	EOY Unit 2
Unit Time	90	75	90	75
Est Time on Task	60	50	60	50

Types of Math Problems



Task Type	Description of Task Type
I. Tasks assessing concepts, skills and procedures	<ul style="list-style-type: none">• Balance of conceptual understanding, fluency, and application• Can involve any or all mathematical practice standards• Machine-scorable including innovative, computer-based formats• Will appear on the End of Year and Performance Based Assessment components
II. Tasks assessing expressing mathematical reasoning	<ul style="list-style-type: none">• Each task calls for written arguments / justifications, critique of reasoning, or precision in mathematical statements (MP3, 6).• Can involve other mathematical practice standards• May include a mix of machine scored and hand scored responses• Included on the Performance Based Assessment component
III. Tasks assessing modeling / applications	<ul style="list-style-type: none">• Each task calls for modeling/application in a real-world context or scenario (MP.4)• Can involve other mathematical practice standards• May include a mix of machine scored and hand scored responses• Included on the Performance Based Assessment component

How Many Math Questions of each Type?



Performance-Based Assessment (PBA)

Question Type	Algebra I	Geometry	Algebra II
Type I (1 point)	10	10	10
Type I (2 point)	-	-	-
Type II (3 point)	2	2	2
Type II (4 point)	2	2	3
Type III (3 point)	2	2	2
Type III (6 point)	2	2	3
Total	18	18	20

How Many Math Questions of each Type?



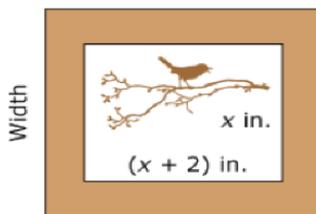
End-of-Year Assessment (EOY)

Question Type	Algebra I	Geometry	Algebra II
Type I (1 point)	21	19	19
Type I (2 point)	11	12	12
Type I (4 point)	3	3	3
Total	35	34	34

Type I Task (Algebra I)



Sam uses one-inch frames for pictures for which the length is 2 inches (in.) longer than the width, as shown.



Width

Length

The area of the frame for a picture that is x inches wide is given by the expression:

$$(x + 4)(x + 2) - (x + 2)x$$

There are four descriptions shown. Drag the correct expression to the appropriate box below the corresponding description.

x

$(x + 2)$

$(x + 4)$

$(x + 2)x$

$(x + 4)(x + 2)$

the length of the picture alone, in inches

the length of the frame, in inches

the area of the picture alone, in square inches

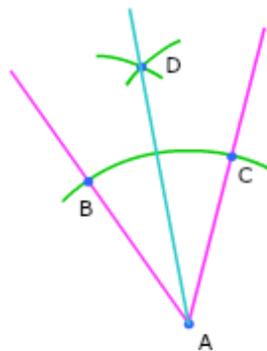
the area of the picture and frame together, in square inches

Click on a choice and drag it to a box.

Type II Task (Geometry)



The animation shows the geometric construction of an angle bisector.



Use the steps in the construction to prove that \overrightarrow{AD} bisects $\angle BAC$.

Cut

Paste

Undo

Redo

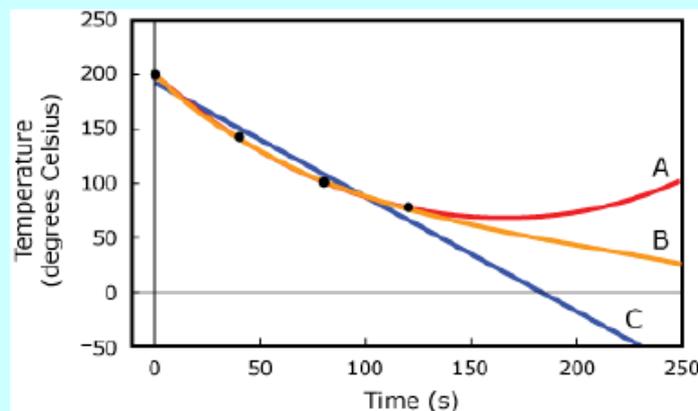
Type III Task (Algebra II)



A scientist is studying the cooling patterns of a particular material over time. Her research requires heating a sample of the material to 200°C . She records the temperature of the sample as it is cooled to 0°C . The table shows the data collected during the first 2 minutes of the cooling process.

Time material is cooling (seconds)	0	40	80	120
Temperature ($^{\circ}\text{C}$)	200	141	101	74

The figure shows the scientist's data (data points are plotted as large dots). Three possible models for the data are also shown: a linear model, a quadratic model, and an exponential model.



Part A

- Which model is linear? Which model is quadratic? Which model is exponential?
- Which model is best for the range of times $0 \leq t \leq 250$?
- Explain why the other models do not fit the data very well for the range of times $0 \leq t \leq 250$.

Type III Task (Algebra II cont'd)



Part B

Construct a function using the type of model you decided is best (linear, quadratic, or exponential). Show your work and use function notation when entering your answer.

Cut Paste Undo Redo



High School Reference Sheet

(Algebra I, Geometry, and Algebra II)



High School Assessment Reference Sheet

1 inch = 2.54 centimeters
 1 meter = 39.37 inches
 1 mile = 5,280 feet
 1 mile = 1,760 yards
 1 mile = 1.609 kilometers

1 kilometer = 0.62 mile
 1 pound = 16 ounces
 1 pound = 0.454 kilograms
 1 kilogram = 2.2 pounds
 1 ton = 2,000 pounds

1 cup = 8 fluid ounces
 1 pint = 2 cups
 1 quart = 2 pints
 1 gallon = 4 quarts
 1 gallon = 3.785 liters
 1 liter = 0.264 gallons
 1 liter = 1000 cubic centimeters

Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$
Circle	$C = \pi d$ or $C = 2\pi r$
General Prisms	$V = Bh$
Cylinder	$V = \pi r^2 h$
Sphere	$V = \frac{4}{3}\pi r^3$
Cone	$V = \frac{1}{3}\pi r^2 h$
Pyramid	$V = \frac{1}{3}Bh$

Pythagorean Theorem	$a^2 + b^2 = c^2$
Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Arithmetic Sequence	$a_n = a_1 + (n - 1)d$
Geometric Sequence	$a_n = a_1 r^{n-1}$
Geometric Series	$S_n = \frac{a_1 - a_1 r^n}{1 - r}$ where $r \neq 1$
Radians	$1 \text{ radian} = \frac{180}{\pi} \text{ degrees}$
Degrees	$1 \text{ degree} = \frac{\pi}{180} \text{ radians}$
Exponential Growth/Decay	$A = A_0 e^{k(t-t_0)} + B_0$

Calculator Policy



- Grades 3-5: No calculators allowed
- Grades 6-7: Four-function with square root and percentage functions
- Grade 8: Scientific calculators
- Algebra I, Geometry, Algebra II: Graphing calculators (with functionalities consistent with TI-84 or similar models)

Will be available online during the assessment

Students can bring their own hand-held calculator if it meets the given criteria

- PARCC Website
 - www.PARCConline.org
- Township of Union Public Schools Website
 - www.twpunionschools.org
 - PARCC Resources available
 - PARCC Time Schedules
 - Sample PARCC Questions and Practice Tests
 - FAQs and much more