

WDHS
CLASS OF 2021
PARENT
MEETING

Class of 2021 Graduation Requirements

ELA and Math Assessment Requirements for the Class of 2021

<u>Two Pathways Available</u>	<u>English Language Arts (ELA)</u>	<u>Mathematics</u>
<u>First Pathway</u>	Take and Pass PARCC ELA Grade 10	Take and Pass PARCC Algebra I**
<u>Second Pathway</u> <i>This Pathway is only available if a student takes all PARCC tests associated with the high-school level courses for which they were eligible*</i>	Meet the criteria of the NJDOE Portfolio Appeal for ELA	Meet the criteria of the NJDOE Portfolio Appeal for Math

Note: * "Eligible" is defined as a student who is enrolled in a high-school level course for which there is a PARCC test and receive a valid score. This includes all of these courses: Algebra I, Geometry, Algebra II, ELA 9, ELA 10, and ELA 11.



BY THE NUMBERS

Where do we stand today?

2016-17 NJ Statewide PARCC Data

60%

ELA

28%

Math

These are the percentages of 8th graders across the state who “passed” (Level 4 or 5) the 8th Grade PARCC Assessments last school year.

2016-17 West Deptford PARCC Data

58.7%

ELA

23.3%

Math

These are the percentages of 8th graders in our district who “passed” (Level 4 or 5) the 8th Grade PARCC Assessments last school year.

West Deptford - Where do we NEED TO BE?

A large light gray circle with a white center. Inside the white center, the text "100%" is written in a large, bold, green font, and "ELA 10" is written in a smaller, green font below it.

100%

ELA 10

A large light gray circle with a white center. Inside the white center, the text "100%" is written in a large, bold, green font, and "Algebra I" is written in a smaller, green font below it.

100%

Algebra I

All Current 9th graders

Mathematics Examples



A look at some different
questions on the Algebra 1
PARCC Exam

First...an Example from the HSPA

The HSPA was the graduation test of record for all students who graduated from the Class of 2001-2015.

Here is an example of a HSPA question from the Number and Quantity Standard:

STANDARD 1 – NUMBER AND NUMERICAL OPERATIONS

The following are two rational numbers greater than 1 and less than 2.

$$\frac{7}{6}, 1.\overline{234}$$

- Give two more rational numbers greater than 1 and less than 2. Give reasons why your numbers are rational numbers.

The following are two irrational numbers greater than 1 and less than 2.

$$\frac{\pi}{2}, 1.01001000100001\dots$$

- Give two more irrational numbers greater than 1 and less than 2. Give reasons why your numbers are irrational numbers.

Now...A Similar Algebra 1 PARCC Question

ALGEBRA I - UNIT 1 / UNIT 1 (NON-CALCULATOR) / 2 OF 10

Let a and b be rational numbers and let c be an irrational number.

Part A

Select the appropriate cell in the table to show whether each value is always rational, never rational, or sometimes rational.

Value	$a + b$	$a - b$	c^2
Always Rational	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Never Rational	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes Rational	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part B

Consider a quadratic equation with integer coefficients and two distinct zeros. If one zero is irrational, which statement is true about the other zero?

- A. The other zero must be rational.
- B. The other zero must be irrational.
- C. The other zero can be either rational or irrational.
- D. The other zero must be non-real.

Again...an Example from the HSPA

The HSPA was the graduation test of record for all students who graduated from the Class of 2001-2015.

Here is an example of a HSPA question from the Algebra and Functions Standards:

STANDARD 3 – PATTERNS AND ALGEBRA

For each bicycle that it repairs, a repair shop charges for parts and \$35 per hour for labor.

- Write an equation for the total charge, C , of a repair with the cost of parts, p , and the number of hours of labor, n .
- The shop adds a 6% tax on the total charge for each repair. Write an equation for the total charge, T , after tax, of a repair with the cost of parts, p , and the number of hours of labor, n .
- The total charge after tax of a bicycle repair was \$233.20. The cost of the parts was \$80. How many hours of labor were charged in this bicycle repair? Show your work or provide an explanation for your answer.

Now...A Similar Algebra 1 PARCC Question

ALGEBRA I - UNIT 3 / UNIT 3 (CALCULATOR) / 11 OF 12

The population of a city in 2005 was 36,000. By 2010, the city's population had grown to 43,800 people.

Part A

Assume that the population of the city has grown linearly since 2005 and that it will continue to grow this way. What will be the population in 2015?

Enter your answer in the box.

people

Part B

Suppose instead that the population of the city is growing exponentially. Write an expression for the population in terms of t , the number of years since 2005.

Enter your answer in the space provided. Enter **only** your expression.

	+	-	×	÷	$\frac{\square}{\square}$	$\frac{\square}{\square}$
	y^x	$\sqrt{\quad}$	$\sqrt[3]{\quad}$	=	(\square)	%

Now...A Similar Algebra 1 PARCC Question (Continued!)

Part C

Assume that the population of the city has grown exponentially since 2005 and that it will continue to grow the same way. What will be the population in 2015? Give your answer to the nearest whole number.

Enter your answer in the box.

people

Part D

Another town's population could be modeled by the function $P(t) = 27,400(1.66)^{\frac{t}{10}}$, where P represents the population and t represents the time, in years, since 2005. Based on the model, by approximately what percent does the population of this town increase each year?

- A. 1
- B. 3
- C. 5
- D. 7

Three Types of Questions

- The ALGEBRA I assessment is comprised of three types of Mathematics questions:

TYPE I - 34 total questions, 1 point= 23, 2 points= 9, 4 points= 2

TYPE II - 4 total questions, 3 points=2, 4 points = 2

TYPE III - 4 total questions, 3 points= 2, 6 points = 2

81 POSSIBLE POINTS

Three Types of Questions

- The ALGEBRA I assessment is comprised of three types of Mathematics questions:

TYPE I Tasks - assess concepts, skills, and procedures; Balance of conceptual understanding, fluency and application (sub-claims A and B)

Sub-Claim A: Major Content with Connections to Practices : The student solves problems involving the Major Content for her grade/course with connections to the Standards for Mathematical Practice.

Sub-Claim B: Additional & Supporting Content with Connections to Practices : The student solves problems involving the Additional and Supporting Content for her grade/course with connections to the Standards for Mathematical Practice.

Three Types of Questions

- The ALGEBRA I assessment is comprised of three types of Mathematics questions:

TYPE II Tasks- assess expressing mathematical reasoning; each task calls for written arguments/justifications, critique of reasoning, or precision (sub-claim C)

Sub-Claim C: Highlighted Practices MP.3 and 6 with Connections to Content (expressing mathematical reasoning) 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.

Three Types of Questions

- The ALGEBRA I assessment is comprised of three types of Mathematics questions:

TYPE III Tasks- assess modeling and applications; each task calls for this in a real-world context or scenario (sub-claim D)

Sub-Claim D: Highlighted Practice MP.4 with Connections to Content (modeling/application): The student solves real-world problems 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).

Mathematical Practices (MPs)

Make sense of problems; **persevere** in solving them (MP1) - practice looking for “entry points” to its solution, identifying different approaches to solve the same problem

Reason abstractly and quantitatively (MP2)

Construct viable **arguments and critique** the reasoning of others (MP3) - use claim/evidence model

Model with mathematics (MP4) - be able to model to “real world”- taking something from 2D to 3D (circle- cone)

Use appropriate **tools** strategically (MP5) - know what you should use and when

Attend to **precision** (MP6)

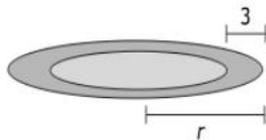
Look for and make use of **structure** (MP7) - example: knowing how to use a parenthesis

Look for and express regularity in **repeated reasoning** (MP8)

Type I Task - Algebra I (sub-claim A)

1.

A circular pool of water is shrinking as it drains. The diagram shows the shrinkage.



A formula for the area, A , of the circular pool is given by the equation $A = \pi(r - 3)^2$.

Which is a formula for r ?

- A. $r = \sqrt{\frac{A}{\pi}} - 3$
- B. $r = \frac{\sqrt{A}}{\pi} + 3$
- C. $r = \sqrt{\frac{A}{\pi}} + 3$
- D. $r = \sqrt{\frac{A}{\pi} - 3}$

Type I Task - Algebra I (sub-claim B)

7.

VH002556

The parabola $f(x) = (x - 2)^2 + 1$ is graphed in the xy -coordinate plane.

Part A

What is true about the vertex of the parabola?

- A. It is 2 units to the left of the origin and 1 unit down from the origin.
- B. It is 2 units to the right of the origin and 1 unit up from the origin.
- C. It is 2 units up from the origin and 1 unit to the right of the origin.
- D. It is 2 units down from the origin and 1 unit to the left of the origin.

Part B

How does the graph of the function $f(x + 3)$ compare to the graph of $f(x)$?

- A. $f(x + 3)$ has a vertical shift 3 units up from $f(x)$.
- B. $f(x + 3)$ has a vertical shift 3 units down from $f(x)$.
- C. $f(x + 3)$ has a horizontal shift 3 units to the right of $f(x)$.
- D. $f(x + 3)$ has a horizontal shift 3 units to the left of $f(x)$.

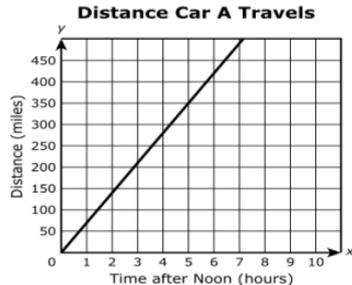
Type II Task - Algebra I (sub-claim C)

30.

VH000834

Three cars are traveling to the same campground along the same route. The cars began at the same place but at different times. Car A began the trip at noon, and cars B and C began the trip at different times before noon. The miles traveled by Cars A, B, and C are represented respectively, by the following graph, table, and equation.

Car A



Car B

Distance Car B Travels

Time after Noon (hours)	Total Distance
1	110
2	175
3	240
4	305
5	370

Car C

$$D = 68t + 20$$

At what time, if ever, will car A pass each of the other cars? Describe any assumptions you made and justify your answer.

Enter your answer, your description, and your justification in the space provided.



▸ Math symbols

▸ Relations

▸ Geometry

▸ Groups

▸ Trigonometry

▸ Statistics

▸ Greek

where D is the total distance, in miles, traveled by car C, and t is the number of hours after noon.



English Language Arts Examples



A look at some different questions on the
PARCC Exams

Reading Passages, EBSR and TECR

-The ELA portion of the PARCC contains several reading passages. Along with those passages are two types of questions (EBSR and TECR) to monitor reading comprehension, text analysis, vocabulary, etc.

-**Evidence-Based Selected Response (EBSR)** questions combine a traditional selected-response (Multiple Choice) question (Part A) with a second selected-response question (Part B) that asks students to show evidence from the text that supports the answer they provided in the first question.

-It is important to note that if students get Part A wrong, their answer to Part B is wrong no matter what they choose. The PARCC does not reward “accidental” correct answers. Students only get partial credit if they get Part A correct. *There are 2x as many of these types of questions as there are the 2nd type (TECRs) which means MORE TOTAL POINTS are associated with this type of question.

EBSR Example

Part A (always standards-based)

Which statement **best** describes an idea about Bathsheba that is suggested in the passage?

- a. She has a strong interest in farming
- b. She is accustomed to the admiration of men
- c. She relies heavily on Liddy's advice
- d. She wishes to be married

Part B (always evidenced-based)

Which piece of evidence from the passage **best** supports the answer to Part A?

- a. "However, the interest was general, and this Saturday's *debut* in the forum, whatever it may have been to Bathsheba as the buying and selling farmer, was unquestionably a triumph to her as the maiden."
- b. "The numerous evidences of her power to attract were only thrown into greater relief by a marked exception."
- c. "'But there was one man who had more sense than to waste his time upon me.' The information was put in this form that Liddy might not for a moment suppose her mistress was at all piqued."
- d. "'He's an interesting man--don't you think so?' she remarked."

Reading Passages, EBSR and TECR

-**Technology Enhanced Constructed Response (TECR)** questions use technology to capture student comprehension of texts in authentic ways that have been difficult to score by machine for large scale assessments (prior to the PARCC).

-The idea is that traditional multiple choice questions can't always go deep enough and these questions, which require interaction with pieces of the text, provide a better opportunity to show understanding.

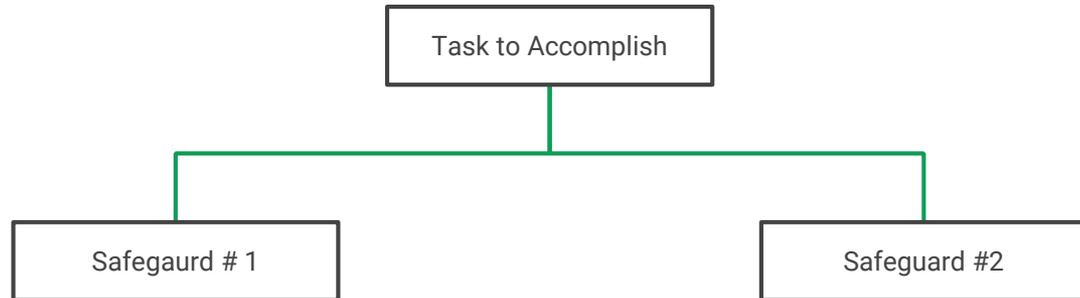
-These can include drag and drop, cut and paste, shade text, move items to show relationships, etc.

TECR Example

In his inaugural address, Roosevelt notes a primary task that needs to be accomplished and two safeguards that will prevent problems from arising as a result of that task.

Invest money on behalf of local banks	Forbid financial institutions from investing money	Conserve the most important national resources	Oversee the transactions of financial institutions
Give people meaningful jobs	Pay people fairly for the work they do	Ensure that national currency remains healthy	Encourage citizens to trust their leadership

Fill out the chart to diagram the relationship between the task and the safeguards.
(Drag & Drop answers)



Prose Constructed Response Questions

Prose Constructed Response (PCR) has replaced the term essay. There are three types on the exam:

- Narrative Writing Task

- Literary Analysis Task

- Research Simulation Task

*All Written parts of the exam account for a possible total of 36 points of the test, 12 possible points for each of the 3 tasks.

Narrative Writing Task

For the Narrative Writing Task (NWT):

-Students read a literary text from a grade level appropriate short story, novel, poem or other type of literature and answer EBSR and TECR questions.

-Then they are asked to write a narrative response to a prompt based on the text.

2016 ELA Grade 10: Excerpt: Thomas Hardy *Far From the Madding Crowd* (1874)

At the end of the passage from *Far from the Madding Crowd*, Bathsheba seems to want to know more about Farmer Boldwood. Based on what you have learned about Bathsheba, write a third person narrative that continues this story and tells what happens next between Bathsheba and Farmer Boldwood.

Narrative Writing Tasks will always ask you: a) to continue the story or b) write from a different perspective

Literary Analysis Task

For the Literary Analysis Task (LAT):

-Students read two literary texts from grade level appropriate short stories, novels, poems, drama, or other type of literature and answer EBSR and TECR questions.

-Then they are asked to write an analytic response to a prompt based on the literary texts. (Prompts usually ask for an analysis of a literary element)

-The following example is from the 2016 10th Grade ELA exam:

Students were asked to read “The Human Seasons” by John Keats (1884) and listen to Shakespeare’s “Sonnet 5” (1590s) and then answer this question.

In their poems, Shakespeare and Keats both address the topics of the passage of time and the natural seasons. Write an essay that analyzes how each poet structures his poem to develop these topics and how their choices affect the overall meaning of each poem. (KEY = cite textual evidence to support claim)

Research Simulation Task

For the Research Simulation Task (RST):

- Students answer EBSR and TECR questions for each informational reading or video/audio selection **independent** of the other selections. These texts are usually anchored in History or Science.

- Then they are asked to analyze the informational topic presented through all three of those texts/media synthesizing the information presented in the varied sources.

- The following example is from the 2015 10th Grade ELA exam:

Research Simulation Task

You have read and listened to three texts that present Franklin Delano Roosevelt's ideas. The three texts are:

- "The Forgotten Man," a speech delivered by Roosevelt on April 7, 1932
- A passage from "Inaugural Address," a speech delivered by Roosevelt on March 4, 1933
- A video clip concerning Roosevelt's "New Deal" programs

Consider the points made by each text about Roosevelt's plans for and beliefs regarding the future of the United States.

Write an essay exploring Roosevelt's view of the most critical challenges facing the United States during the Great Depression and in what way Roosevelt believed that his proposed solutions differed from those attempted by others. Your essay should consider at least **two** of the texts that you have read. Remember to use textual evidence to support your ideas.

An Important Note

ELA question types are the same across grade levels.

The complexity of the text changes (which also increases the complexity of the questions) but what students are being asked to do has not changed since the PARCC was rolled out. The rubric used to score PCR questions is exactly the same grades 6-11.

Here is an example RST for Grade 3:

Students read and responded to EBSR and TECR questions on two readings about hot air balloons. Then they were asked to write this essay:

Using the information in both articles, describe the steps to flying and landing hot air balloons. How are the articles different or similar in how they describe these steps? Use examples from both articles to support your answer.

An Important Note

6th Grade Sample RST

After reading three articles about fossils and evolution and answering EBSR and TECR questions students were asked to write this essay:

Read this sentence from paragraph 2 of “Clues to Ancient Life”

Scientists learn about past life on Earth and how Earth has changed over millions of years from fossils.

Write an essay that analyzes how this idea is developed differently in “Miss me?” and *Croc Fossil Found in Cave*.

ELA - PARCC resource - released items

PARCC Released Items :

<http://parcc-assessment.org/released-items>

PARCC PCR Rubrics: http://parcc-assessment.org/content/uploads/released_materials/06/Grade6-11-ELA-LiteracyScoringRubric-July2015_0.pdf

PARCC Practice Resources

- × Pearson Practice Tests:
 - × <https://parcc.pearson.com/practice-tests>
- × Learnosity PARCC Algebra 1 Practice
 - × https://www.learnosity.com/content/demo_activities.php?activity=p_m_9
- × Learnosity PARCC ELA 9 Practice
 - × https://www.learnosity.com/content/demo_activities.php?activity=p_ela_9

PARCC Practice Resources

- × PARCC Tutorials
 - × <https://parcc.pearson.com/tutorial/>
 - × Check out the Equation Editor Tutorial and Practice problems on the right side!
- × PARCC Released Items, Scoring Guides, and Sample Student Responses
 - × <https://parcc-assessment.org/released-items/>

What can you do at home to support your children's learning?



- Scroll through the PARCC released items and practice tests
- Practice reading a variety of informational texts for understanding at home (this is where the majority of our students falter)
- Review the State Standards (<http://www.state.nj.us/education/cccs/>) and Ask the teachers for resources to supplement the content being taught
- Review your Child's scores from last year to identify areas where he/she may need additional support