

PARCC  
NJASK Science  
Results:  
Spring 2017 Administrations

Warren Township  
School District

October 16, 2017

Measuring  
College and  
Career Readiness

- PARCC Administration Overview
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# T O P I C S

# NEW JERSEY'S STATEWIDE ASSESSMENT PROGRAM

2017 marks the 3<sup>rd</sup> administration of the Partnership for Assessment of Readiness for College and Careers (PARCC).

Any 3 year comparison should recognize the 2015 test occurred in two windows: Performance Based Assessment and End of Year Assessment.

Students took PARCC English Language Arts and Literacy Assessments (ELA/L) in grades 3 – 8.

Students took PARCC Mathematics Assessments in grades 3 – 8 and End of Course Assessments in Algebra I and Geometry.

# PARCC PERFORMANCE LEVELS

Level 1: Not yet meeting grade-level expectations

Level 2: Partially meeting grade-level expectations

Level 3: Approaching grade-level expectations

Level 4: Meeting grade-level expectations

Level 5: Exceeding grade-level expectations

COMPARISON OF **WARREN TOWNSHIP SCHOOL DISTRICT'S**  
 SPRING 2015, SPRING 2016, & SPRING 2017  
 PARCC ADMINISTRATIONS  
**ENGLISH LANGUAGE ARTS/LITERACY - PERCENTAGES**

Grade	Not Yet Meeting Expectations (Level 1)			Partially Meeting Expectations (Level 2)			Approaching Expectations (Level 3)			Meeting Expectations (Level 4)			Exceeding Expectations (Level 5)			Change in Level 1 / Level 2 From 2015 to 2017	Change in Level 4 / Level 5 From 2015 to 2017**
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017		
<b>3</b>	5	4	<b>2</b>	11	11	<b>8</b>	21	16	<b>14</b>	54	62	<b>59</b>	8	8	<b>18</b>	<b>-6</b>	<b>+15</b>
<b>4</b>	1	2	<b>1</b>	4	9	<b>4</b>	19	17	<b>16</b>	52	52	<b>55</b>	24	21	<b>25</b>	<b>0</b>	<b>+4</b>
<b>5</b>	2	1	<b>1</b>	5	8	<b>6</b>	20	14	<b>20</b>	63	64	<b>53</b>	9	13	<b>20</b>	<b>0</b>	<b>+1</b>
<b>6</b>	4	1	<b>3</b>	7	11	<b>5</b>	15	17	<b>20</b>	59	54	<b>54</b>	16	17	<b>18</b>	<b>-3</b>	<b>-3</b>
<b>7</b>	2	5	<b>2</b>	6	5	<b>6</b>	13	13	<b>14</b>	42	34	<b>41</b>	37	43	<b>37</b>	<b>0</b>	<b>-1</b>
<b>8</b>	1	5	<b>3</b>	2	12	<b>8</b>	15	20	<b>14</b>	55	45	<b>38</b>	27	19	<b>36</b>	<b>+8</b>	<b>-8</b>

\*\*Level 4 and Level 5 is an indication a student is on pace to be college and career ready.

Notes: Data shown is preliminary. Percentages may not total 100 due to rounding.

COMPARISON OF **WARREN TOWNSHIP SCHOOL DISTRICT'S**  
 SPRING 2015, SPRING 2016, & SPRING 2017  
 PARCC ADMINISTRATIONS  
**MATHEMATICS - PERCENTAGES**

Grade	Not Yet Meeting Expectations (Level 1)			Partially Meeting Expectations (Level 2)			Approaching Expectations (Level 3)			Meeting Expectations (Level 4)			Exceeding Expectations (Level 5)			Change in Level 1 / Level 2 From 2015 to 2017	Change in Level 4 / Level 5 From 2015 to 2017**
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017		
3	2	2	<b>0</b>	7	4	<b>4</b>	20	13	<b>18</b>	53	52	<b>46</b>	18	29	<b>32</b>	<b>-5</b>	<b>+7</b>
4	1	2	<b>2</b>	9	9	<b>7</b>	21	20	<b>20</b>	56	61	<b>60</b>	13	9	<b>11</b>	<b>-1</b>	<b>+2</b>
5	1	2	<b>0</b>	8	7	<b>9</b>	25	18	<b>21</b>	50	52	<b>49</b>	16	21	<b>21</b>	<b>0</b>	<b>+5</b>
6	4	2	<b>2</b>	9	8	<b>8</b>	16	18	<b>18</b>	48	50	<b>55</b>	22	22	<b>17</b>	<b>-3</b>	<b>+2</b>
7	1	3	<b>0</b>	11	10	<b>7</b>	31	20	<b>20</b>	51	55	<b>51</b>	7	12	<b>21</b>	<b>-5</b>	<b>+14</b>
8*	1	10	<b>26</b>	19	23	<b>18</b>	33	31	<b>33</b>	47	36	<b>23</b>	0	0	<b>0</b>	<b>+24</b>	<b>-24</b>
ALG I	0	0	<b>0</b>	1	1	<b>2</b>	5	10	<b>10</b>	75	65	<b>71</b>	19	25	<b>16</b>	<b>+1</b>	<b>-7</b>
GEO	0	0	<b>0</b>	0	0	<b>0</b>	0	0	<b>0</b>	0	5	<b>16</b>	100	95	<b>84</b>	<b>0</b>	<b>0</b>

\*Approximately 30,000 New Jersey students in grade 8 participated in the PARCC Algebra I assessment. Thus, PARCC Math 8 outcomes are not representative of grade 8 performance as a whole. \*\*Level 4 and Level 5 is an indication a student is on pace to be college and career ready. Percentages may not total 100 due to rounding.

COMPARISON OF **WARREN TOWNSHIP SCHOOL DISTRICT'S**  
 2015 TO 2017 SPRING PARCC ADMINISTRATIONS  
 ENGLISH LANGUAGE ARTS/LITERACY  
 PERCENTAGES

	% Change in Level 1 and Level 2		% Change in Level 4 and Level 5	
	Warren Township	State	Warren Township	State
Grade 3	-6	-5.8	+15	+6.9
Grade 4	0	-1.8	+4	+4.8
Grade 5	0	-3.3	+1	+7.4
Grade 6	-3	-2.3	-3	+4.5
Grade 7	0	-5.0	-1	+7.6
Grade 8	+8	-5.5	-8	+7.5

Notes: Percentages may not total 100 due to rounding.

- An up arrow indicates an increase of the % change from the previous year where a down arrow shows a decrease of the % change from the previous year.

COMPARISON OF **WARREN TOWNSHIP SCHOOL DISTRICT'S**  
 2015 TO 2017 SPRING PARCC ADMINISTRATIONS  
 MATHEMATICS  
 PERCENTAGES

	% Change in Level 1 and Level 2		% Change in Level 4 and Level 5	
	Warren Township	State	Warren Township	State
Grade 3	-5	-4.4	+7	+7.5
Grade 4	-1	-3.5	+2	+6.7
Grade 5	0	-2.5	+5	+5.2
Grade 6	-3	-0.2	+2	+2.8
Grade 7	-5	-2.1	+14	+2.8
Grade 8	+24	-3.8	-24	+4.2
Algebra	+1	-4.8	-7	+5.4
Geometry	0	-9.0	0	+7.4

\*Some students in grade 8 participated in the PARCC Algebra I assessment in place of the 8<sup>th</sup> grade Math assessment. Thus, PARCC Math 8 outcomes are not representative of grade 8 performance as a whole.

Notes: Percentages may not total 100 due to rounding.

- An up arrow indicates an increase of the % change from the previous year where a down arrow shows a decrease of the % change from the previous year.

COMPARISON OF **WARREN TOWNSHIP SCHOOL DISTRICT'S**  
 STUDENTS TESTED  
 SPRING 2016 AND SPRING 2017 PARCC ADMINISTRATIONS  
 ENGLISH LANGUAGE ARTS/LITERACY

	Students Tested		Year to Year Change
	2016	2017	
Grade 3	185	168	-17
Grade 4	185	187	2
Grade 5	239	193	-46
Grade 6	221	240	+19
Grade 7	203	231	+28
Grade 8	211	213	+2
<b>TOTAL</b>	<b>1263</b>	<b>1232</b>	<b>-31</b>

Note: "Students Tested" represents individual valid test scores for English Language Arts/Literacy.

# COMPARISON OF WARREN TOWNSHIP SCHOOL DISTRICT'S STUDENTS TESTED SPRING 2016 AND SPRING 2017 PARCC ADMINISTRATIONS MATHEMATICS

	Students Tested		Year to Year Change
	2016	2017	
Grade 3	185	169	<b>-16</b>
Grade 4	185	186	<b>+1</b>
Grade 5	239	194	<b>-45</b>
Grade 6	221	240	<b>+19</b>
Grade 7	177	218	<b>+41</b>
Grade 8*	89	61	<b>-28</b>
Algebra I	126	143	<b>+17</b>
Geometry	21	25	<b>+4</b>
<b>TOTAL</b>	<b>1243</b>	<b>1236</b>	<b>-7</b>

\*Some students in grade 8 participated in the PARCC Algebra I assessment in place of the 8<sup>th</sup> grade Math assessment. Thus, PARCC Math 8 outcomes are not representative of grade 8 performance as a whole.

Notes: "Students Tested" represents individual valid test scores for Mathematics.

COMPARISON OF **WARREN TOWNSHIP SCHOOL DISTRICT'S**  
 SPRING 2016 AND SPRING 2017 PARCC ADMINISTRATIONS  
 ENGLISH LANGUAGE ARTS/LITERACY TO NEW JERSEY- PERCENTAGES

	Not Yet Meeting Expectations (Level 1)		Partially Meeting Expectations (Level 2)		Approaching Expectations (Level 3)		Meeting Expectations (Level 4)		Exceeding Expectations (Level 5)	
	District	<b>State</b>	District	<b>State</b>	District	<b>State</b>	District	<b>State</b>	District	<b>State</b>
	2017	<b>2017</b>	2017	<b>2017</b>	2017	<b>2017</b>	2017	<b>2017</b>	2017	<b>2017</b>
Grade 3	2	12.7	8	14.4	14	22.5	59	42.9	18	7.5
Grade 4	1	7.7	4	12.8	16	23.7	55	40.5	25	15.4
Grade 5	1	6.8	6	12.2	20	22.1	53	48.2	20	10.7
Grade 6	3	6.5	5	14.6	20	25.6	54	41.0	18	12.3
Grade 7	2	8.9	6	11.4	14	20.5	41	35.4	37	23.8
Grade 8	3	9.0	8	11.6	14	20.3	38	40.5	36	18.6

Notes: Percentages may not total 100 due to rounding.

## COMPARISON OF WARREN TOWNSHIP SCHOOL DISTRICT'S SPRING 2016 AND SPRING 2017 PARCC ADMINISTRATIONS MATHEMATICS TO NEW JERSEY- PERCENTAGES

	Not Yet Meeting Expectations (Level 1)		Partially Meeting Expectations (Level 2)		Approaching Expectations (Level 3)		Meeting Expectations (Level 4)		Exceeding Expectations (Level 5)	
	District	State	District	State	District	State	District	State	District	State
	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
Grade 3	0	7.8	4	14.6	18	25.1	46	38.7	32	13.7
Grade 4	2	8.1	7	17.5	20	27.1	60	40.6	11	6.7
Grade 5	0	6.5	9	17.8	21	29.6	49	37.3	21	8.9
Grade 6	2	9.7	8	19.1	18	27.7	55	35.0	17	8.6
Grade 7	0	8.0	7	19.9	20	32.5	51	33.9	21	5.7
Grade 8*	26	22.9	18	21.4	33	28.0	23	26.9	0	0.8
Algebra I	0	12.2	2	22.1	10	24.2	71	36.9	16	4.5
Geometry	0	10.0	0	29.0	0	31.3	16	25.8	84	4.0

\*Some students in grade 8 participated in the PARCC Algebra I assessment in place of the 8<sup>th</sup> grade Math assessment. Thus, PARCC Math 8 outcomes are not representative of grade 8 performance as a whole.

Notes: Percentages may not total 100 due to rounding.

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL & GRADE 3 OUTCOMES**  
**ENGLISH LANGUAGE ARTS/LITERACY**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	% >= Level 4
ALT	2	0	7	74	17	<b>91</b>
Central	2	13	21	53	11	<b>64</b>
Mount Horeb	0	14	14	52	21	<b>73</b>
Woodland	2	5	11	57	25	<b>82</b>

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL- & GRADE 4 OUTCOMES**  
**ENGLISH LANGUAGE ARTS/LITERACY**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	% >= Level 4
ALT	0	4	13	54	29	<b>83</b>
Central	0	4	9	44	42	<b>86</b>
Mount Horeb	0	8	29	45	18	<b>73</b>
Woodland	2	2	13	71	12	<b>83</b>

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL & GRADE 5 OUTCOMES**  
**ENGLISH LANGUAGE ARTS/LITERACY**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	% >= Level 4
ALT	0	0	15	60	25	<b>85</b>
Central	2	10	26	47	16	<b>63</b>
Mount Horeb	2	12	22	46	17	<b>63</b>
Woodland	0	3	14	62	22	<b>84</b>

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL- & GRADE 6, 7 & 8 OUTCOMES**  
**ENGLISH LANGUAGE ARTS/LITERACY**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	<b>% &gt;= Level 4</b>
Grade 6	3	5	20	54	18	<b>72</b>
Grade 7	2	6	14	41	37	<b>78</b>
Grade 8	3	8	14	38	36	<b>74</b>

Notes: Percentages may not total 100 due to rounding.

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL- & GRADE 3 OUTCOMES**  
**MATHEMATICS**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	% >= Level 4
ALT	0	5	12	51	33	<b>84</b>
Central	0	2	19	45	34	<b>79</b>
Mount Horeb	0	10	14	45	31	<b>76</b>
Woodland	0	2	25	43	30	<b>73</b>

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL- & GRADE 4 OUTCOMES**  
**MATHEMATICS**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	% >= Level 4
ALT	0	10	18	57	16	<b>73</b>
Central	2	7	18	62	11	<b>73</b>
Mount Horeb	5	8	13	66	8	<b>74</b>
Woodland	2	4	29	58	8	<b>66</b>

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL- & GRADE 5 OUTCOMES**  
**MATHEMATICS**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	<b>% &gt;= Level 4</b>
ALT	0	2	11	65	22	<b>87</b>
Central	0	11	35	31	23	<b>54</b>
Mount Horeb	0	17	12	49	22	<b>71</b>
Woodland	0	8	19	57	16	<b>73</b>

**WARREN TOWNSHIP SCHOOL DISTRICT'S**  
**2017 SPRING PARCC SCHOOL- & GRADE 6, 7 & 8 OUTCOMES**  
**MATHEMATICS**

	Not Yet Meeting Expectations (Level 1)	Partially Meeting Expectations (Level 2)	Approaching Expectations (Level 3)	Meeting Expectations (Level 4)	Exceeding Expectations (Level 5)	<b>% &gt;= Level 4</b>
Grade 6	2	8	18	55	17	<b>72</b>
Grade 7	0	7	20	51	21	<b>72</b>
Grade 8	26	18	33	23	0	<b>23</b>
Algebra	0	2	10	71	16	<b>87</b>
Geometry	0	0	0	16	84	<b>100</b>

Notes: Percentages may not total 100 due to rounding.

# PARCC: AREAS OF NOTE

Warren Township's overall one year district passing percentage change was:

- ELA: +8%
- Math: - 1%

# PARCC: AREAS OF NOTE

The district conducted a comparison of over 25 school districts.

This comparison included:

- K-8 and K-12 districts with similar enrollment and economic profiles.
- The other K-8 Watchung Hills High School sending districts.
- 2017 PARCC results.

# PARCC: AREAS OF NOTE

Comparison districts' average ELA passing percentage ranged from 62.3 to 86.6.

- Warren 75.7%
- 15 districts within + or - 5% points.
- Similar K-8 districts' ELA scores ranged from 62.3 to 80.6

Comparison districts' average Math passing percentage ranged from 52.4 to 74.2

- Warren: 71.9%
- 11 districts within + or - 5% points.
- Similar K-8 districts' Math scores ranged from 53.9 to 73.9

## PARCC: AREAS OF NOTE

2016 – 2017 was the first year of full heterogeneous grouping in grade 6 math within Warren.

- Cohort scores remained steady from grade 5 to grade 6.

Grade 8 ELA course level 4 and 5 scores improved 11% from 2016-2017.

Mount Horeb School demonstrated 2016 to 2017 increases in level 4 and 5 course scores in all areas at all grade levels.

# PARCC: AREAS OF NOTE

2017 Grade 8 Math results require deeper analysis.

- District must consider issues related to schedule, identification and course structures.

Professional Development in ELA and Math instructional practices continues.

- Grade 3-8 teachers have established schedule of days to work with consultants and to learn and apply standards based strategies.

# NJASK SCIENCE BACKGROUND

- NJASK Science is reported separately from PARCC
- NJASK Science is processed through Measurement Inc.
- NJASK Science Scale:
  - Partially Proficient (199 and below)
  - Proficient (200 – 249)
  - Advanced Proficient (250 – 300)

# NJASK SCIENCE BACKGROUND

The Science test measures fourth and eighth grade students' ability to recall information and to solve problems by applying science concepts. The Science test assesses knowledge and application skills in three clusters; each cluster contains multiple-choice items and constructed-response items. The NJ CCCS numbers corresponding to the three clusters are indicated in parentheses.

- **Life Science (5.5, 5.10)**

- Matter, Energy, and Organization in Living Systems
- Diversity and Biological Evolution
- Reproduction and Heredity
- Natural Systems and Interactions
- Human Interactions and Impact

- **Physical Science (5.6, 5.7)**

- Structure and Properties of Matter
- Chemical Reactions
- Motion and Forces
- Energy Transformations

- **Earth Science (5.8, 5.9)**

- Earth's Properties and Materials
- Atmosphere and Weather
- Processes that Shape the Earth
- How We Study the Earth
- Earth, Moon, Sun System
- Solar System
- Stars
- Galaxies and Universe

# NJASK SCIENCE

## SCORE INTERPRETATION GUIDE

*“Although the NJASK is designed to optimize scale score test-retest reliability, it is not possible to produce a test with scores that are 100% reliable. A student’s NJASK score, therefore, should be considered an estimate of student performance level.”*

*“Scores on the NJASK tend to be more precise in the general area of the proficient cut score and less precise at the extremes, so the accuracy of score differences in the vicinity of 200 tends to be greater than in the lower part of the partially proficient range or the advanced proficient range.”*

# NJASK SCIENCE – GRADE 4 DISTRICT RESULTS & TRENDS SCALE MEAN SCORES

Grade		District	DFG	District	DFG
		Total Students		General Education Students	
<b>4</b>	<b>2017</b>	<b>256.1</b>	<b>257.3</b>	<b>260.2</b>	<b>262.2</b>
4	2016	259.8	259.1	264.1	264
4	2015	257.3	256.2	261.6	260.2
<b>8</b>	<b>2017</b>	<b>240</b>	<b>238.7</b>	<b>246.9</b>	<b>244.5</b>
8	2016	234.6	238.6	241	244
8	2015	239.7	234.7	242.8	239.1

# NJASK SCIENCE

## PROFICIENCY LEVELS BY GRADE

### % OF TOTAL STUDENTS

Grade		District	DFG	District	DFG	District	DFG
		Partially Proficient		Proficient		Advanced Proficient	
<b>4</b>	<b>2017</b>	<b>4.2</b>	<b>4.3</b>	<b>33.7</b>	<b>29.7</b>	<b>62.1</b>	<b>66</b>
4	2016	2.1	3	32.3	28.5	65.6	68.5
4	2015	2.1	2.6	28.3	30	69.6	67.4
<b>8</b>	<b>2017</b>	<b>13.4</b>	<b>11</b>	<b>41.5</b>	<b>45.4</b>	<b>45.2</b>	<b>43.6</b>
8	2016	13.1	11.6	48.2	45.9	38.7	42.5
8	2015	2.1	9.3	60	58.2	37.9	32.5

# NJASK SCIENCE

## PROFICIENCY LEVELS BY GRADE

### % OF GENERAL EDUCATION STUDENTS

Grade		District	DFG	District	DFG	District	DFG
		Partially Proficient		Proficient		Advanced Proficient	
<b>4</b>	<b>2017</b>	<b>1.9</b>	<b>2</b>	<b>31.3</b>	<b>26.5</b>	<b>66.9</b>	<b>71.5</b>
4	2016	.6	1.3	29.9	24.1	69.4	74.6
4	2015	0	.9	23.3	26.4	76.7	72.7
<b>8</b>	<b>2017</b>	<b>6.2</b>	<b>5.5</b>	<b>40.7</b>	<b>45.1</b>	<b>53.1</b>	<b>49.4</b>
8	2016	7.5	6.2	47.4	46.1	45.1	47.8
8	2015	1.5	4.8	55.8	58.6	42.7	36.6

# TRANSITION TO A NEW STATE SCIENCE ASSESSMENT

- Spring 2017 marked the final year of NJASK Science
- Spring 2018 will serve as a baseline for a new state science assessment aligned with the state's Next Generation Science Standards that are now being fully implemented.
- Grades 5 and 8 will be the assessed grades for the state science assessment (as well as a high school exam).
- The assessment will be taken on the computer.
- More information will be provided as the state updates districts in the upcoming months.

# SCIENCE PROFESSIONAL DEVELOPMENT

- The Warren Township School District continues to send teachers to the RVCC Science Institute for comprehensive training about the Next Generation Science Standards.
- The Warren Township School District was selected as a partner district with RVCC for onsite professional development at Warren Middle School with consultants from RVCC and Rider University.
- The Warren Township School District has two staff members who have been selected to serve as Teacher Leaders for the RVCC Science Institute.

# TESTING SCHEDULE FOR 2017-2018

## 2018 PARCC Administration Window:

### District Administration Dates:

- Grades 6, 7, 8: May 8, 9 & 10
- Grades 3, 4, 5: May 14, 15, 16, 17 & 18

### Science:

- Grades 5 and 8: TBD