

# DELRAN TOWNSHIP SCHOOL DISTRICT

New Jersey Assessment of Skills and Knowledge (NJASK) 4th  
Grade & Grade Test Results  
& New Jersey Biology Competency Test (NJBCT) Results 2016-  
2017

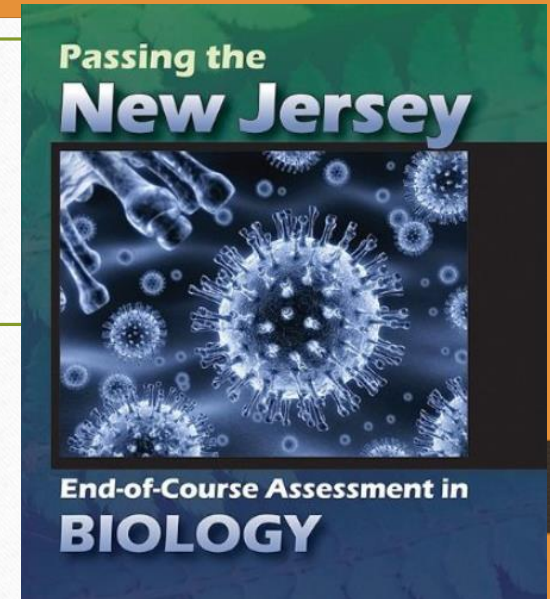
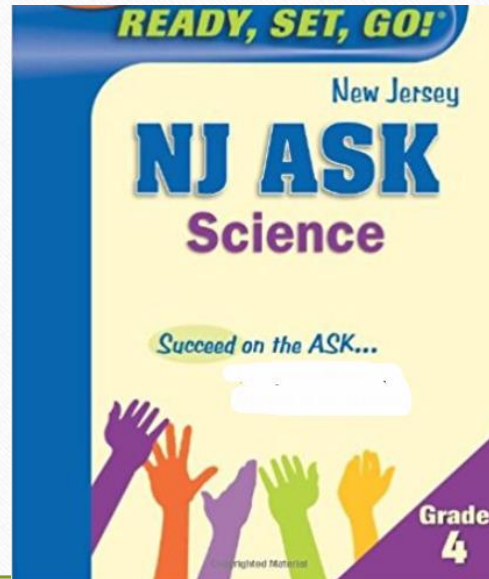
**Presentation of SPRING 2017 Data**

Kari McGann, Director of Curriculum and Instruction

Erica DeMichele, K-12 Supervisor of Science, Tech, Engineering, F&CS

# What did the New Jersey Assessment of Skills and Knowledge (NJASK) and the New Jersey Biology Competency Test (NJBCT) measure?

Spring 2017, the NJASK-4, NJASK-8 and the New Jersey Biology End of Course Test measured fourth grade, eighth grade and biology students' ability to primarily recall information about scientific problems by applying science concepts.



# Sample NJASK Science Questions

Grade 4

Grade 8

## Sample Multiple-Choice Question

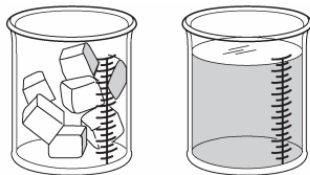
The sample question below will show you what the questions are like and how to mark your answers. For each multiple-choice question, select the best answer and fill in the circle next to your choice. Make sure you fill in the correct circle.

Example:

Which of the following is a way that people directly affect the environment?

- A playing soccer
- B dumping trash
- C flying a kite
- D walking to school

Victor has two glasses. One glass is filled with ice cubes and the other is filled with water. Give three ways the ice and water are different.



The ice cubes are colder than the water.

The water is liquid and the ice cubes are solid.

The water fills more of the glass than the ice cubes.

Which of the following signs can not be evidence of a chemical change?



- A. Evolution of gas bubbles with the formation of a new substance.
- B. Change in the color of the substance with the formation of a substance that has different properties.
- C. Change in the physical state of the substance without the formation of a new substance
- D. Evolution of energy in the form of light, heat or electricity

There are some places on the Earth that are very cold. During winters, the lake water in these places freezes whereas it gets so hot in the summers that the water level of the lake decreases. The decrease in the water level is due to evaporation.

Write the three states of water involved in the above scenario.

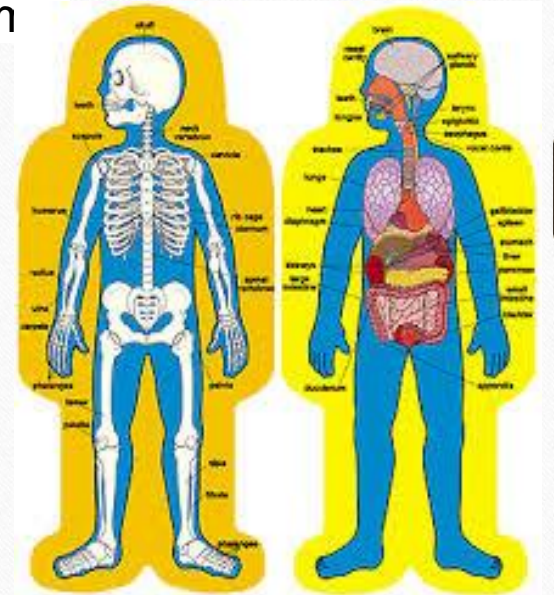
Answer: \_\_\_\_\_  
\_\_\_\_\_

Compare the motion of particles in the above mentioned three states of water.

Answer: \_\_\_\_\_  
\_\_\_\_\_

# Life Science New Jersey Student Learning Standards-Science (NJSLS-S)

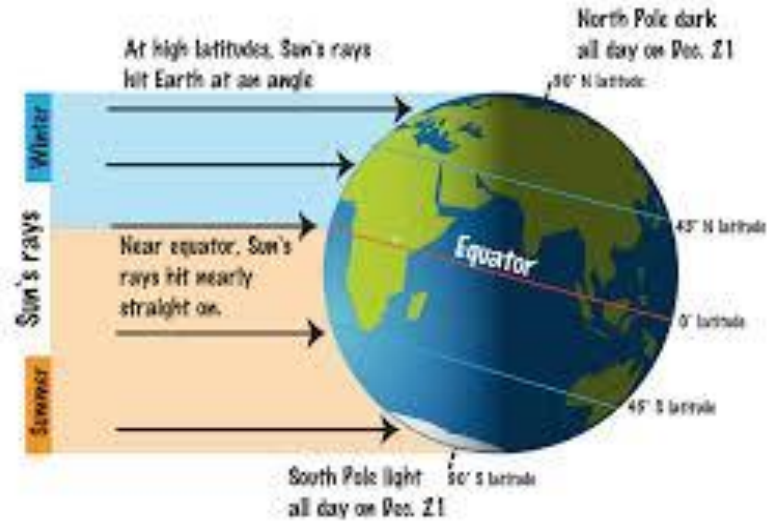
- Matter, Energy, and Organization in Living System
- Diversity and Biological Evolution
- Reproduction and Heredity
- Natural Systems and Interactions
- Human Interactions and Impact



# Earth Science (NJSLS-S)

- 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

Earth at Winter Solstice ( -Dec. 21 )



# Physical Science (NJSLS-S)

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



Dr. Brian Brotschul, Superintendent of Schools  
Mrs. Kari McGann, Director of Curriculum and Instruction  
Mrs. Erica DeMichele, Supervisor of Science

"Dedicated to nurturing a supporting, student-centered environment where all people are treated with dignity and respect"

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October, 2017

Dear Parents:

Enclosed is a copy of your child's "Individualized Student Report" for the New Jersey Assessment of Skills and Knowledge (NJ ASK). The science test measures fourth and eighth grade students' ability to recall information and solve problems by applying science concepts. The science test assesses knowledge and application skills in three clusters; each cluster contains multiple-choice items constructed-response items. The table below provides specifics for each of the three clusters.

Life Science	Earth Science	Physical Science
<ul style="list-style-type: none"><li>· Matter, Energy, and Organization in Living Systems</li><li>· Diversity and Biological Evolution</li><li>· Reproduction and Heredity</li><li>· Natural Systems and Interactions</li><li>· Human Interactions and Impact</li></ul>	<ul style="list-style-type: none"><li>· Earth's Properties and Materials</li><li>· Atmosphere and Weather</li><li>· Processes that Shape the Earth</li><li>· How We Study the Earth</li><li>· Earth, Moon, Sun System</li><li>· Solar System</li><li>· Stars</li><li>· Galaxies and Universe</li></ul>	<ul style="list-style-type: none"><li>· Structure and the Properties of Matter</li><li>· Chemical Reactions</li><li>· Motion and Forces</li><li>· Energy Transformations</li></ul>

This report reflects your child's performance on the NJ ASK Science (Grade 4 or Grade 8), a set of standardized tests administered last May to all students in grades 4 and 8. As you preview your child's profile, please note:

*The report reflects your child's performance on that test. Although the test measures important aspects of your child's achievement, it does not cover everything that we teach or that your child learns. The report also reflects your child's performance at that specific time. It represents a snapshot taken over parts of a three to five-day period. Your child's teachers, in their day-to-day activities, gather other information over the course of the entire school year, and The NJ ASK Science (4 and 8) test has been administered in the district since their inception by the New Jersey Department of Education. Proficiency levels have been set by the state and are based on a scaled score that ranges from 100 to 300. Further information can be found at this link:*

[A New Jersey Assessment of Skills and Knowledge 2017 Score Interpretation Manual for Science Grades 4 and 8](#)

New science assessments will be administered in spring 2018 and will be aligned to the New Jersey Student Learning Standards for Science, which all school districts were required to implement by the 2017-2018 school year. These new science assessments will be computer-based tests including technology-enhanced items. The science assessments will be administered in grades 5, 8, and 11. The exact date is yet to be determined by the New Jersey Department of Education, but is scheduled to be sometime in the spring of 2018. We will communicate the exact date as soon as possible. There will be no 4<sup>th</sup>-grade science assessment this school year. The grade 11 high school assessment will be a comprehensive science assessment rather than an end-of-course high school biology assessment. More information is available at the link: [Governor Christie Announces Positive Performance Results in Final Year of NJASK](#) If you have questions about reading your child's profile or the NJASK, please contact your child's building principal or Mrs. DeMichele, Supervisor of Science, or myself. We will all be happy to help.

Sincerely,

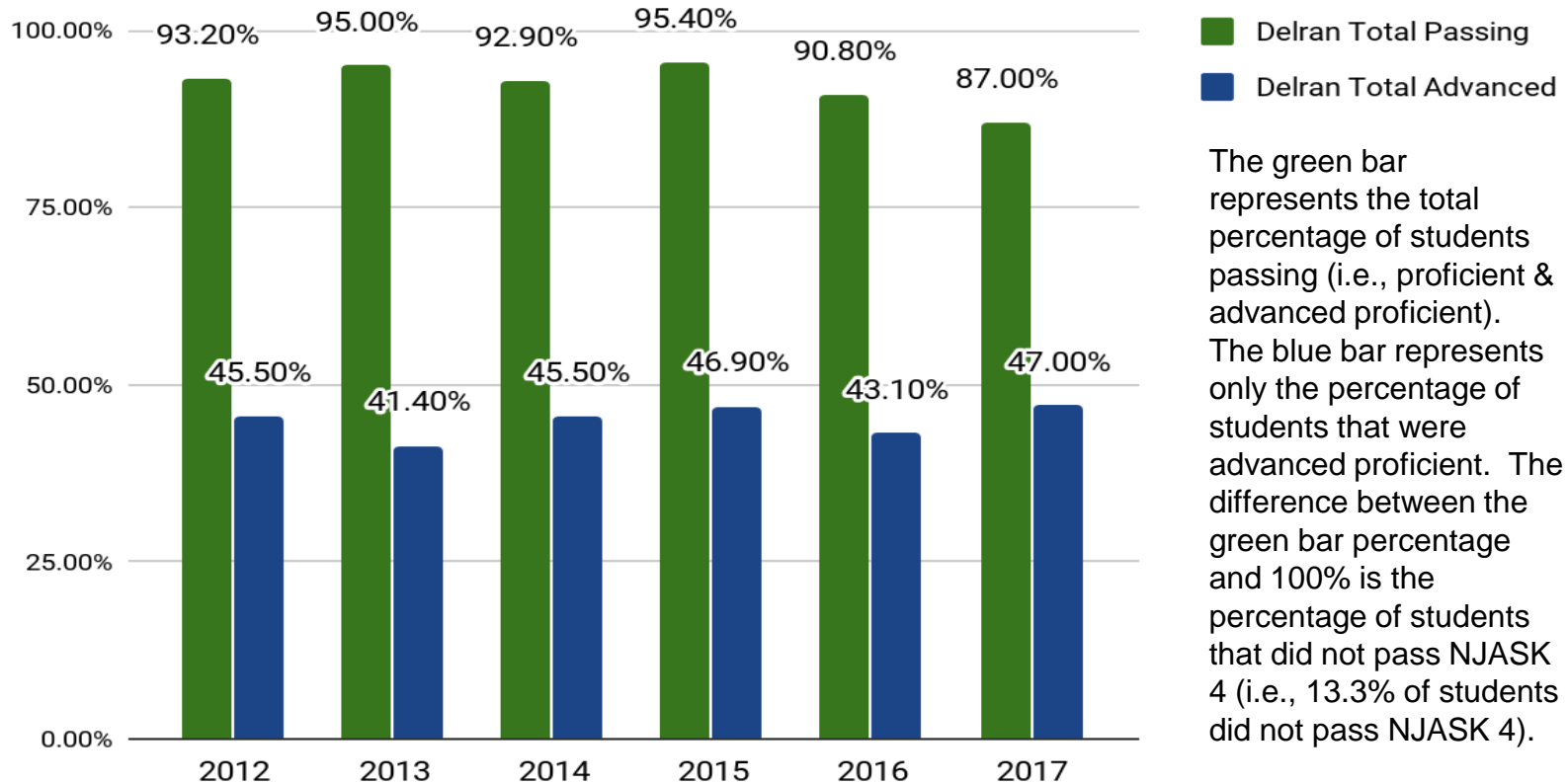
Mrs. Kari McGann  
Director of Curriculum and Instruction

# Analyzing the Testing Results

The results of standardized testing identify strengths and weaknesses in our educational programs. The process leads to improved instruction, as progress is made toward the new implementation of the new standards across all content areas and grade levels. These results are used to:

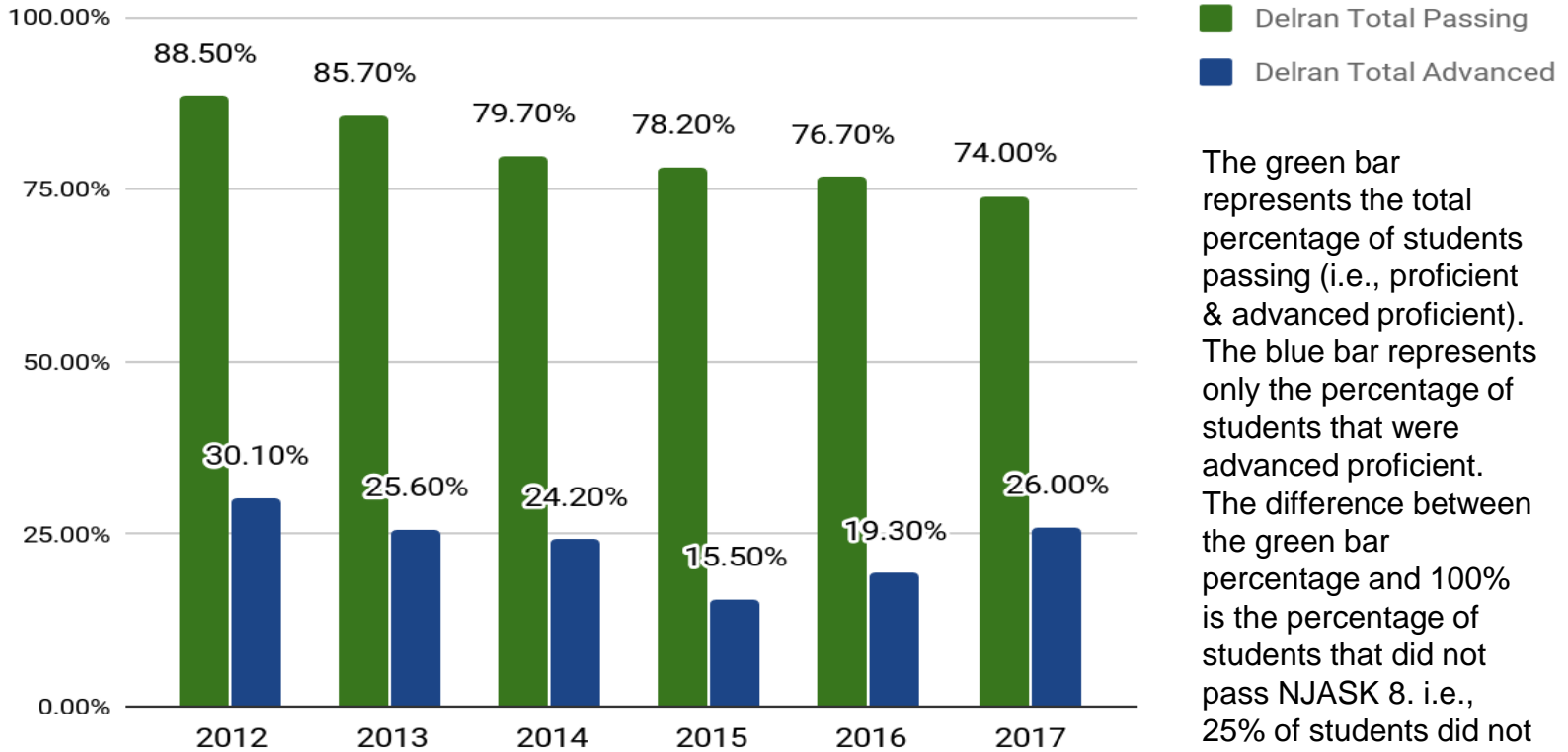
1. Identify those students who may need instructional support in any of the content areas;
2. Identify strengths and weaknesses in educational programs;
3. Improve teaching and learning.

# Delran Township NJASK 4 Comparison 2012-2017





# Delran Township NJASK 8 Comparison 2012-2017



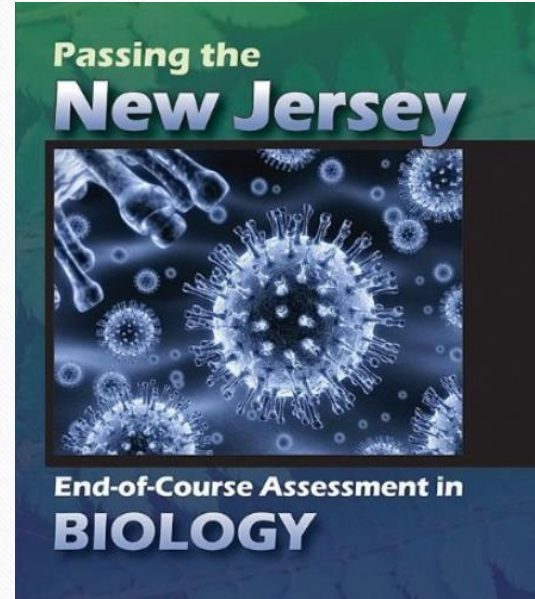
The green bar represents the total percentage of students passing (i.e., proficient & advanced proficient). The blue bar represents only the percentage of students that were advanced proficient. The difference between the green bar percentage and 100% is the percentage of students that did not pass NJASK 8. i.e., 25% of students did not pass grade 8 NJASK.)

# New Jersey Biology Competency Test (NJBCT)

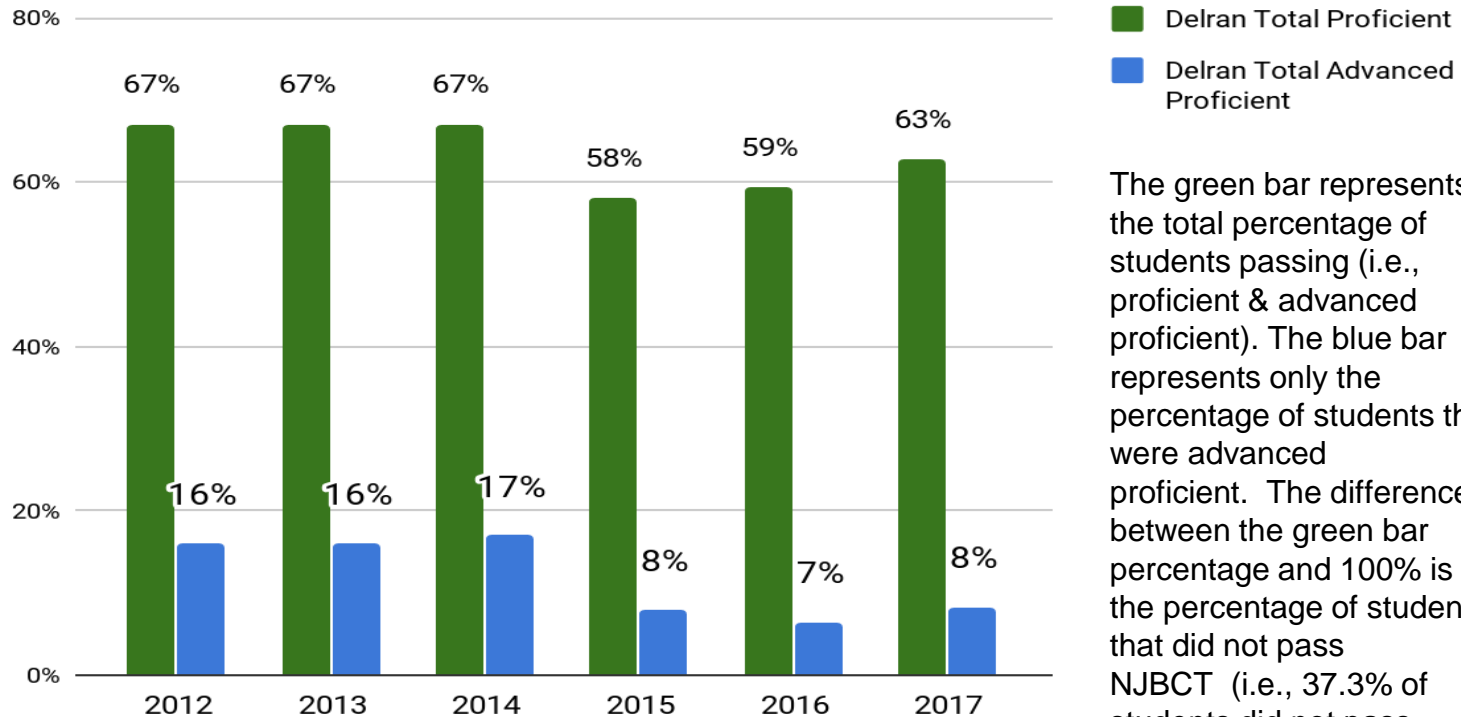
- The NJBCT is a state test given to students to measure whether they have gained the knowledge and skills in the New Jersey Student Learning Standards in Science (NJSLS-S).
- Test results are used to determine the appropriateness and strength of our curriculum and to develop remedial programs to assist students with knowledge and skills.
- The NJBCT is designed to measure how well all high school students have mastered the Biology content standards, including students with learning disabilities.
- All limited English proficient (LEP) students must take the NJBCT.

# Content Clusters of the NJBCT

- Organization and Development
- Matter and Energy Transformation
- Interdependence
- Heredity and Reproduction
- Evolution and Diversity
- Performance Assessment



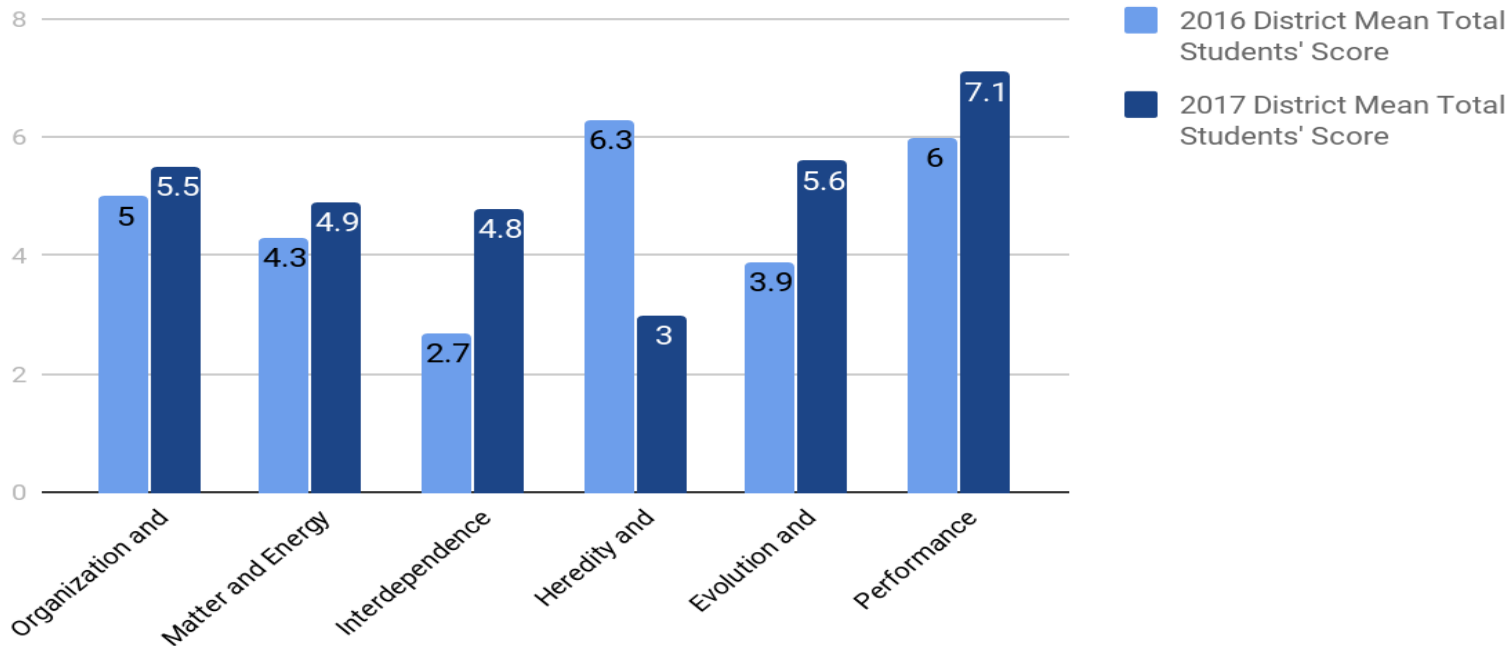
# Delran Township NJBCT Comparison 2012-2017



The green bar represents the total percentage of students passing (i.e., proficient & advanced proficient). The blue bar represents only the percentage of students that were advanced proficient. The difference between the green bar percentage and 100% is the percentage of students that did not pass NJBCT (i.e., 37.3% of students did not pass NJBCT.)

# Delran Township NJBCT Cluster Scores

## NJBCT Cluster Means for Students with Valid Scores



The PARCC assessment provides District Evidence Statements for specific subject areas so that analysis can occur to determine student strengths and weaknesses in categories and standards. The NJBCT does not offer this type of analysis, however the NJSLS-S new assessments scheduled for the spring promise new hope for data analysis in science.

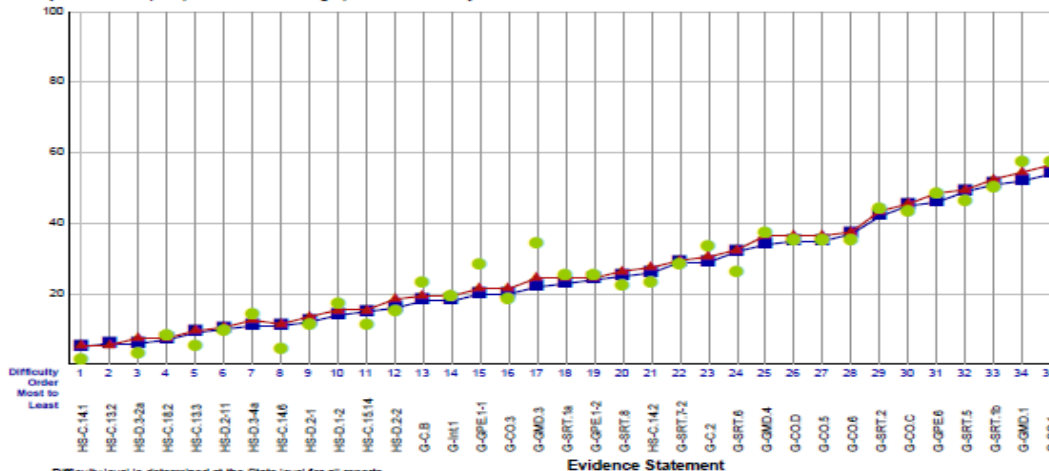


**MATHEMATICS**  
Geometry Assessment, Spring 2017



**Students with Valid Scores (190)**

Purpose: This report presents the average percent correct by Evidence Statement for district, state and Cross-State.



Difficulty level is determined at the State level for all reports

Evidence Statements not tested in district or school are left blank

This report is NOT for public review. Distribution within your school/district must be in accordance with state and federal privacy laws, and local school board policy.

## Information provided to parents:

- Assessment testing time
- Scale score information

Advanced Proficient/Pass 250-300

Proficient/Pass 200-249

Partially Proficient/Not Pass 100-199



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October, 2017

Dear Parents:

Enclosed is a copy of your child's "Individualized Student Report" for the New Jersey Biology Competency Test (NJBCT). The New Jersey Biology Competency Test (NJBCT) is a state test given to students to measure whether they have gained the knowledge and skills identified in the Biology section of the Science Core Curriculum Content Standards (CCCS). The CCCS adopted by the State Board of Education, identify what students should know and be able to do at the end of various benchmark years. In May 2008, all New Jersey public high school students enrolled in a requisite Biology course were required to participate in the End of Course Biology Test, which replaced HSPA Science. In 2010, the End of Course Biology test was renamed New Jersey Biology Competency Test (NJBCT). For the NJBCT, all New Jersey public high school students, regardless of grade level, who are enrolled in a Biology course or content equivalent during the school year must take the test, regardless of prior testing exposure and experience.

The enclosed report reflects your child's performance on the NJBCT, a set of standardized tests administered last May to all students that were enrolled in Biology. The NJBCT was administered to your child during a two-day period. Day one contained 30 multiple-choice items and one performance based assessment. Day two consisted of one open-ended performance based assessment task and an additional 30 multiple-choice items. The NJBCT assesses students' knowledge of the following: Organization and Development; Matter and Energy Transfer; Interdependence; Heredity and Reproduction; and Evolution and Diversity.

The report is only available to parents, guardians, students, and authorized school officials. This report provides your child's NJBCT scores on this test. The NJBCT scores are reported as scale scores with a range from 100 to 300. The passing score is 200. The scale score of 200 is the cut point between Proficient students and Partially Proficient students. The score ranges are as follows:

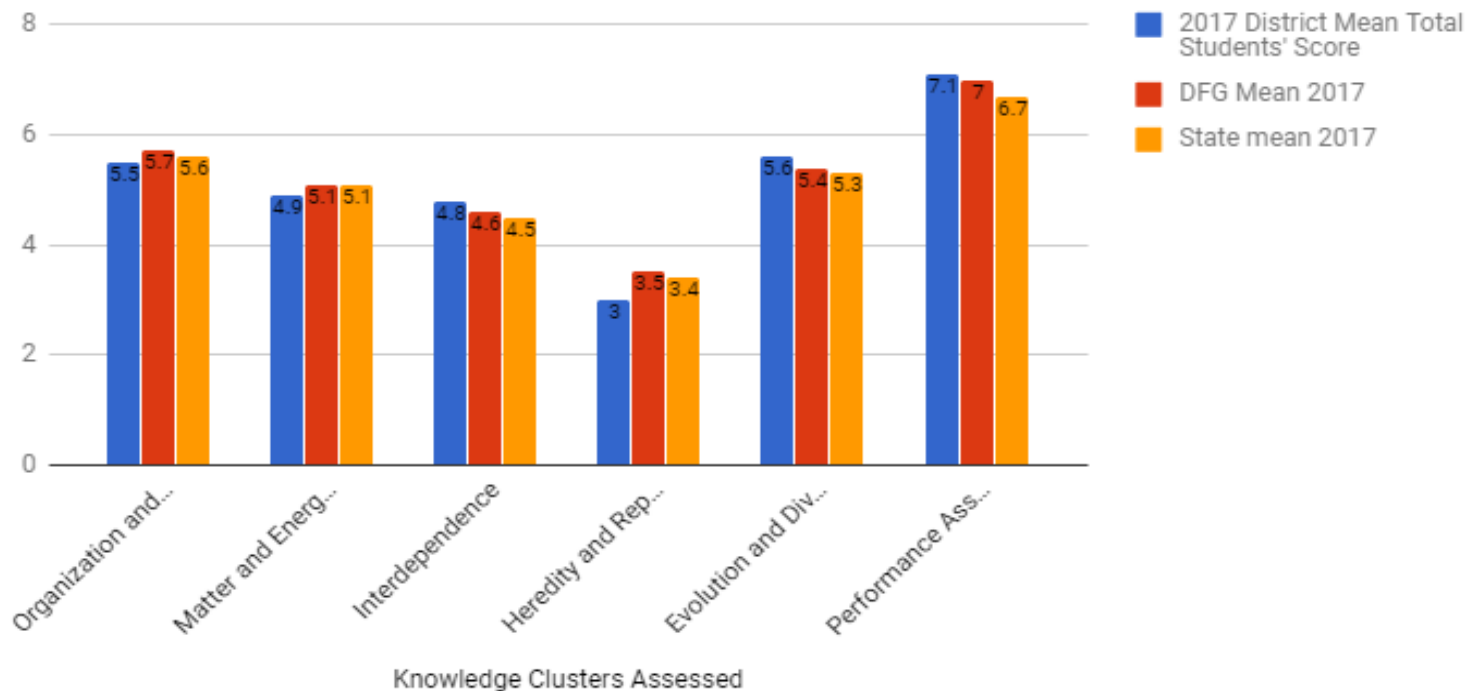
Advanced Proficient/Pass	250-300
Proficient/Pass	200-249
Partially Proficient/Not Pass	100-199

New science assessments will be administered in spring 2018 and will be aligned to the New Jersey Student Learning Standards for Science, which all school districts were required to implement by the 2017-2018 school year. These new science assessments will be computer-based tests including technology-enhanced items. The science assessments will be administered in grades 5, 8, and 11. The grade 11 high school assessment will be a comprehensive science assessment rather than an end-of-course high school biology assessment.

If you have questions about reading your child's profile or the NJBCT, please contact Mrs. Erica DeMichele, Supervisor of Science, Mr. Daniel Finkle, Delran High School Principal, or myself. We will all be happy to help. Any one of us can help you interpret the information on the score report and can explain what the school's instructional staff is doing and what you can do to help your child master the skills measured on the test.

Sincerely,

## NJBCT Cluster Means for Students with Valid Test Scores 2017





In May 2018, the test will:

- Be a comprehensive, computer based assessment in Grades 5, 8 and 11
- Contain more open-ended response in Claims, Evidence and Reasoning format
- Contain more data analysis and explanation of data
- Have computer simulation and modeling manipulation

Activity: Gas filled balloons (ID#: 034-02-c01)

## Gas filled balloons (ID#: 034.02-c01)

Alice did an experiment that caused four balloons to fill with gas, as shown in the figure to the right. Alice tested the flammability of each gas. She also measured the volume and mass of each gas to calculate the density. The tests and measures all occurred under the same conditions. The data is in Table 1.



Table 1. Data of four gases in the balloons.

Sample	Flammability	Density	Volume
Gas A	Yes	0.089 g/L	180 cm <sup>3</sup>
Gas B	No	1.422 g/L	270 cm <sup>3</sup>
Gas C	No	1.981 g/L	35 cm <sup>3</sup>
Gas D	Yes	0.089 g/L	269 cm <sup>3</sup>

### Question #1

Which, if any, of the gases listed in the data table could be the same? Using information from the table, explain your answer.

Type answer here

This is an example of a middle school, physical science prompt and open ended response question.

# Our Next Steps

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- Comparison of Delran Township NJ-ASK 4th and 8th Grade.
- AP and Biology End-of-Course Exam Subgroup Data Analysis with high school teachers.
- Analyze and share individual student testing data and share with teachers and administration.
- Student Individual Reports shared with parents through post-office mail.
- Continued professional development for staff on the new style of “PARCC like, computer based testing” for Spring 2018.
- NJSLS-S assessment in the spring for 5th, 8th, and 11th Grade

# Next Generation Science Standards Analysis Plan

**District, School , and Grade Level Data: NJSL-S assessment information**

**Disaggregated data, by subgroups**

**Disaggregated data by categories, (i.e.  
standards)**

**Item Analysis using  
Evidence Statements**

**Student-level  
Analysis**