Delaware Student Testing Program

A SCORE RESULTS GUIDE FOR PARENTS

Prepared by the Accountability Resources
Teaching and Learning Branch

Delaware Department of Education
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Section I: Introduction to the DSTP

Delaware students must meet world-class standards if they are to be competitive and successful in a global economy. To prepare our students for their future, our schools must support rigorous standards and each of our teachers must set high expectations. Our students must also commit themselves to the achievement of excellence.

Any system that hopes to accomplish such ambitious goals must have a yardstick by which to measure its progress. Delaware educators have developed the Delaware Student Testing Program (DSTP) that now serves as such a yardstick. The tests are tied to the Delaware content standards that define the knowledge and skills required for our students to succeed beyond high school. The results of the DSTP provide us with an understanding of how well we are preparing students to meet the many challenges that lie ahead. Whatever the results, Delaware students and educators will understand where we are so that we can tell how far we have to go. An accurate assessment of where we are is the first step towards getting where we want to be.

This past spring, the annual DSTP reading and mathematics tests were administered in grades 2-10 to provide an accurate measure of how well our students are doing relative to Delaware's rigorous content standards. The science and social studies tests were also administered in grades 8 and 11. The grades 4 and 6 science and social studies tests were administered last October.

Purpose of the test

The Delaware Student Testing Program is designed to:

- help schools and districts know if students are making progress on meeting standards
- help the state know how schools and districts are ensuring that students are being taught the standards

Questions and answers about the 2010 DSTP

What are "Standards" and "Grade Level Expectations"?

The standards are the result of several years of work by Delaware educators to determine what Delaware students should know and be able to do as a result of their education. The standards for English language arts (reading and writing), mathematics, science and social studies were approved by the State Board of Education in 1995. Since then, each set of content standards has been periodically reviewed and updated as necessary. Delaware's content standards have been widely recognized as among the best in the nation. Each teacher and each administrator in Delaware has a copy of the Standards. These standards are the basis for the design of the DSTP. When the curriculum and the assessments are both aligned to the content standards, valuable information is gained which helps improve instruction and student performance.

In 2005, Grade Level Expectations (GLE's) were developed to provide clarity for classroom teachers as to their specific responsibilities in guiding students to meet and exceed the Content Standards. These GLE's are used at the local level to develop curricula and assessments to monitor progress toward meeting and exceeding the standards. At the state level, they are used to develop or identify items for inclusion on the Delaware Student Testing Program (DSTP).

What kind of information is tested in each part of DSTP?

Reading: Reading is assessed using literature that informs, entertains or explains how to perform a task. Students are asked to read passages and then demonstrate their ability to comprehend, analyze and interpret what they have read by answering multiple choice, short answer, and extended response questions.

Mathematics: The mathematics section assesses a student's ability to grasp key concepts and solve realistic problems. Multiple choice, short answer, and extended response questions are used to assess students' conceptual knowledge, procedural knowledge, and knowledge of mathematical processes across core areas such as computation, measurement, algebra, and geometry. Because the test is focused on reasoning and analysis, students are permitted to use calculators on some parts of the test

Science: The science section assesses a student's ability to grasp key scientific principles and solve realistic problems. Multiple choice questions and short answer questions are used to assess students' conceptual knowledge, procedural knowledge, and knowledge of scientific principles across core areas such as ecology, diversity of living things, life processes, dynamic systems, space, energy, properties of materials, and the nature and application of science and technology. The test is focused on reasoning and analysis.

Social Studies: The social studies section assesses a student's ability to grasp key concepts and apply this knowledge to everyday living within a diverse world, and within a democratic system. Multiple choice questions and short answer questions are used to assess students' conceptual knowledge and analytical abilities across core areas such as civics, economics, geography, and history. The test is focused on reasoning and analysis across core areas.

What are scaled scores and what is the advantage of using them?

The number of correct responses a student gives to test items is called a raw score. The reading and mathematics raw scores are converted to scaled scores by use of the Item Response Theory, Rasch Model process. This is a widely accepted scaling procedure used by testing companies. The primary purpose of converting raw scores to scaled scores is to aid in interpreting students' test results. Scaled scores allow comparison of the scores of a student over time from grade to grade. This permits an examination of the student's growth over time. Scaling also permits the examination of other trends in performance of **groups of students** over time within a grade level.

What reports are available and how can they be accessed?

Individual student reports are produced and provided to the student's parent or guardian and for the school files.

School, district, and state summary reports (that do not contain individual student scores) can be accessed by the public using the Department of Education website at: **www.doe.k12.de.us/aab.**

There are five types of reports available on the DSTP-OR registered user system. Superintendents, principals, administrators, and registered teachers have access to these reports.

1. Individual Student Score Reports:

The student's results are reported to parents and to schools so parents and teachers can review the indicators of the student's academic strengths and weaknesses and can begin to assist students in meeting the content standards.

After the administration of the DSTP in the spring of 1999, the results were used to develop decision points for performance levels (see page 10 for reading and page 19 for mathematics). During the summer of 2005, these decision points were reaffirmed or adjusted for grades 3, 5, 8 and 10 and set and adopted for grades 2, 4, 6, 7, and 9.

2. School Score Reports:

The student performance on the DSTP for the entire school can assist school staff in evaluating how the curriculum is functioning: What are the strengths of the curriculum? What are the weaknesses? What overall curriculum changes might be necessary to assist students in meeting the standards? The school score reports can provide a signal to the principal that additional resources may be needed or reallocated to assist teachers in providing the necessary instruction.

3. District Score Reports:

The district-wide student performance on the DSTP allow district staff to identify strengths and weaknesses common to the schools in the district. This information permits the district administrators to examine district-wide curriculum that works, curriculum that needs adjustment, resource allocation, and/or any other adjustment that might be necessary.

4. State Score Reports:

The statewide scores permit the public to monitor the collective progress of students toward meeting the Delaware content standards. It is anticipated that the statewide scores on the DSTP will increase for students as teachers and school administrators begin to identify strengths and weaknesses and to continue to work for changes to improve the educational process.

5. Selected Group Score Reports:

The student performance on the DSTP for a selected class or group allows the school administrator and registered teachers to focus on special curricular issues of that group. These scores can provide a signal to the principal that additional resources may be needed or reallocated to assist teachers in providing the necessary instruction for this group.

Reports

Reports sent to parents

Parents of students in grades 2, 3, 4, 5, 6, 7, 8, 9, and 10 receive two printed reports:

- The 2010 DELAWARE STUDENT TESTING PROGRAM Reading Individual Report, and
- The 2010 DELAWARE STUDENT TESTING PROGRAM Mathematics Individual Report.

Parents of students in grades 4, 6, 8, or 11 receive a printed report:

- The 2010 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies Individual Report. Reports for 8th and 11th grade students will be sent in September of 2010, reports for 4th and 6th grade students were sent in January 2010.

Reports available for public access

DSTP On-line summary reports are available for public access for reading and mathematics for grades 2 through 10, and for science and social studies for grades 4, 6, 8 and 11. These reports can be accessed through the Delaware Department of Education website: www.doe.k12.de.us/aab. After connecting with the website, click on the link for "DSTP Online Reports." The following reports can be accessed:

- overall summary reports,
- disaggregated reports,
- matched-scores reports,
- summary by district, and
- school summaries.

DSTP results from the earlier years of assessment are also available.

Reports available to teachers

For grades 2 to10, through on-line reporting teachers can produce:

- Reading scores for each student in the class and summary reports for the entire class,
- Mathematics scores for each student in the class and summary reports for the entire class,

For grades 4, 6, 8, and 11, through on-line reporting teachers can produce:

- Science and social studies scores for each student in the class and summary reports for the entire class.

Reports for administrators

Schools

For each school, three basic reports can be accessed:

- For students in grades 2 through 10, the 2010 DELAWARE STUDENT TESTING PROGRAM Reading Report for the School,
- For students in grades 2 through 10, the 2010 DELAWARE STUDENT TESTING PROGRAM Mathematics Report for the School, and
- For students in grades 4, 6, 8, and 11, the 2010 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies School Report. (Reports for 8^{th} and 11^{th} grade students will be available in fall of 2010, reports for 4^{th} and 6^{th} grade students were made available in January 2010.)

School personnel can also generate selected group reports for grades 2 to 10 in Reading and Mathematics and for grades 4, 6, 8 and 11 for Science and Social Studies.

Districts

For each district, three basic reports can be accessed:

- Students in grades 2 through 10, the 2010 DELAWARE STUDENT TESTING PROGRAM Reading Report for the District,
- Students in grades 2 through 10, the 2010 DELAWARE STUDENT TESTING PROGRAM Mathematics Report for the District, and
- Students in grades 4, 6, 8, and 11, the 2010 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies District Report. (Reports for 8th and 11th grade students will be sent in September of 2010, reports for 4th and 6th grade students were available in January 2010.)

District personnel can also generate selected group reports for grades 2 to 10 in Reading and Mathematics and for grades 4, 6, 8 and 11 for Science and Social Studies.

SECTION II: Understanding the Reading Report

The score report you receive contains five sections of information regarding student performance on reading:

A. Grade Tested, Test Date and SAT-10 Level /Form, and SAT-10 Norms
B. Your student's Performance Levels (two, three or four) and scores for reading.
C. The reading scaled score for your student compared to other students tested at the same grade level in the school;
The average reading scaled score for the school (for students tested at the same grade as your student);
The average reading scaled score for the district (for students tested at the same grade as your student);
The average reading scaled score for the State of Delaware (for students tested at the same grade as your student);
D. Your student's SAT-10 percentile rank for reading at the grade level tested;
E. Your student's Instructional Needs for reading.

Each section of the Reading Individual Report is discussed separately. A sample of a Reading Individual Report is found in the Appendix.

A. Grade Tested, Test Date, SAT-10 Level/Form, SAT-10 Norms

This part of the score report provides general information about the administration of the test:

- The grade level at which your student was tested is reported next to **Grade Tested:**
- The date your student took this test is then listed after **Test Date:**
- Following the test date is the **SAT-10 Level/Form**. The SAT-10 is an acronym for the *Stanford Achievement Test-Tenth Edition*. The SAT-10 is a standardized, nationally administered test. The level refers to test appropriate for the grade tested. The form refers to one that is secure for statewide use only.

- To create the national **SAT-10 Norms**, this standardized test was administered to a representative sample of from 225,000 to 250,000 students nationwide. Their score results are referred to as national norms, or more usually, "norms". The norms become a reference point against which to compare the performance of any student who then takes the SAT-10. The norms for this test were developed in 2002.

B. Performance Levels: Reading

Performance Level Cut Point Development: Grades 3 through 10

During the fall of 1999, a group of 188 participants consisting of 83% teachers, 7% administrators, 9% parents, and 1% participants from organizations or from the community, met under the guidance of Harcourt Assessment, Inc., to develop the "Meets the Standard" and "Exceeds the Standard" cut points. A subset of these participants developed the cut points for reading and writing. The methodology used by judges for setting the cut points is referred to as "Item Mapping" by some measurement companies, and "Bookmarking" by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and inserting "bookmarks" at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges' recommendations for the "Meets the Standard" and "Exceeds the Standard" performance levels had been finalized, the Department of Education, with the technical assistance of Harcourt Assessment, Inc., calculated the cut points for the "Below the Standard" and "Well Below the Standard" levels, and the cut point for the "Distinguished" performance level. In the winter of 2002, the writing cut points were adjusted. In the summer of 2005, the cut scores for Grades 3, 5, 8 and 10 were revisited and some adjustments were made. The cut scores for grades 2, 4, 6, 7, and 9 were also set at this time.

There are five performance levels in reading that are consistent with Delaware's accountability law. The following describe each level:

Performance Level	
Level 5	Distinguished Performance
Level 4	Exceeds the Standard
Level 3	Meets the Standard
Level 2	Below the Standard
Level 1	Well Below the Standard

The Delaware Performance Level Descriptors (PLDs) provide a summary of what students should know and be able to do in reading at grades 2-10. The content summary is based on the Delaware Grade Level Expectations (GLEs). This is followed by a cognitive description of the performance on the Delaware Student Testing Program (DSTP) that differentiates *groups* of students at the five levels. Students at Performance Level 3 meet the standards for that grade. Students above Performance Level 3 exceed the standards and those below, need intervention. The Department of Education published the "Performance Level Descriptors for Reading, Writing and Mathematics" in booklets by grade level which were distributed to sent to schools for distribution to parents and guardians along with the individual student reports. These booklets with the descriptors are also available on the DSTP website.

Cut Points for Reading for Grades 2 through 10:

The DSTP Reading scale scores by performance level are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 2	-------	360 or less	361-418	419 or more	--------
Grade 3	386 or less	387 to 414	415 to 465	466 to 481	482 or more
Grade 4	413 or less	414 to 439	440 to 482	483 to 502	503 or more
Grade 5	426 or less	427 to 452	453 to 501	502 to 528	529 or more
Grade 6	434 or less	435 to 459	460 to 503	504 to 541	542 or more
Grade 7	437 or less	438 to 464	465 to 522	523 to 556	557 or more
Grade 8	465 or less	466 to 494	495 to 552	553 to 583	584 or more
Grade 9	467 or less	468 to 497	498 to 557	558 to 585	586 or more
Grade 10	469 or less	470 to 500	501 to 561	562 to 587	588 or more

C. Score Comparisons of Grade Tested: Reading

This section contains score comparisons of your student's reading score against all of the students in the school tested at the same grade level. Your student's score is found on the line between the lowest scale score listed on the left-hand side of the line and the maximum scale score on the right. You can also compare your student's performance to the performance of the students tested at the same grade level in the district and in the state.

The Individual Student's Score

In this section you can see how well your student is performing, as compared to all the students tested at the same grade in the school by locating the position of your students' score on the scale relative to the position of the score for students tested at the same grade level in the school. You can also compare your student's performance to the performance of the students tested at the same grade level in the district and in the state.

The School's Score

Also, you can see how the students tested at the same grade level in your school are performing on reading compared to all the students in the district who took the test for that grade level by examining the position of the school's score on the scale relative to the district's score. You can also compare the school's score to the performance of the students tested at the same grade level in the state.

The District's Score

Also, you can see how the students tested at the same grade level in your school district are performing on reading compared to the Delaware students who took the test at the same grade level by examining the position of the district's score on the scale relative to the state's score.

The State of Delaware's Score

In addition, you can see how the students tested at the same grade level test in the State of Delaware are performing on reading by examining the position of the state's score on the scale.

D. A Student's Percentile Rank for Reading

The percentile rank for reading is obtained from the abbreviated form of the Stanford Achievement Test (SAT-10) that is embedded in the DSTP. The SAT-10 is included for several reasons:

- It allows comparisons of the reading performance of Delaware students on a nationally used standardized test, thus permitting the comparison of student performance on general reading proficiency to other students across the nation.
- A subset of the SAT-10 items are directly related to the Delaware Reading Standards and are a part of the DSTP score.
- The SAT-10 items included in the DSTP permit the important and efficient psychometric process of equating and scaling the DSTP from one administration of the test to subsequent administrations of the test.

A percentile rank is a way of looking at how well your student performed on the SAT-10 reading test relative to students tested at the same grade level in the national norms. Percentile rank gives you information as to what percentage of same grade students in the norms scored higher or lower than your student. For example, if your student had a reading percentile rank of 91, it means that 91 percent of the students in the national norms scored **below** your student and only 9 percent scored **at or higher than your student's score**. If your student had a reading percentile rank of 54, it means that 54 percent of the students in the national norms scored **below** your student and that 46 percent scored **at or higher** than your student's score. If your student had a percentile rank of 29, it means that 29 percent of students in the national norms scored **below** your student and that 71 percent scored **at or higher than your student's score.**

In some cases a student might score higher or lower on the SAT-10 reading test than on the DSTP reading test. It must be kept in mind that a student's SAT-10 percentile rank score cannot be directly compared to the relative scale position of the DSTP reading test score. There are several reasons why these scores are non-comparable:

- The SAT-10 reading test is not directly aligned with Delaware reading content standards. A portion of the SAT-10 reading test is related to the reading content standards and is included in the DSTP score, whereas the DSTP reading test is **completely aligned** with the English language arts content standards.
- The SAT-10 is entirely comprised of multiple-choice items, whereas the DSTP is comprised of multiple choice, short answer, and extended response items. Writing short answers and extended responses requires very different skills than selecting the answer on a multiple-choice item. Because the items on the SAT-10 and the DSTP reading test are very different in format (multiple choice vs. multiple choice, short answer, and extended response), they measure very different aspects of reading and their results cannot be directly compared.
- The score for the DSTP reading test is based on a substantially larger number of test items than the score for the SAT-10 reading test. This means that the DSTP reading test samples a larger portion of the student's reading skills as defined by the English language arts content standards than does the SAT-10.

E. Instructional Needs: Reading

This section of the report provides feedback that depends on what items an individual student answered correctly and incorrectly, and/or how the items were answered

In reading, comments are produced depending on the kind of items a student can and cannot answer. For example, if items that measured the student's ability to understand the central ideas in a piece of text are answered incorrectly, a comment would be produced stating that the student needed to work on "interpreting meaning by drawing conclusions about the central ideas in a text…." The instructional needs comments provide the student, the parent, the teacher, and the administrator with information about the areas in which the student needs to improve performance.

Although not all comments are triggered at all grade levels, the following are the comments that can be triggered by student responses to one or more of the reading items:

- determining meaning by reading more carefully to retell or restate information from the text,
- determining meaning by using context clues, identifying story elements and organizing important points to understand the text,
- interpreting meaning by drawing conclusions and making inferences, about ideas in a text and understanding why a text was written,
- interpreting meaning by understanding elements of text (e.g., figurative language, genre, fact/opinion, comparisons),
- extending meaning by drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts,
- extending meaning by understanding the effects of author's techniques and decisions,
- extending meaning by evaluating text for bias and accuracy in order to formulate and support opinions, and/or
- continuing use of good reading strategies. Congratulations!

It should be noted that the comments on the instructional needs in reading:

- reflect the Delaware content standards for reading;
- are listed from basic to complex as indicated in the Delaware content standards for reading;
- were developed to help teachers examine the instructional needs of their students; and
- relate highly to the Performance Level Descriptors (PLDs) .

SECTION III: Understanding the Mathematics Report

For grades 2 through 10, the Mathematics Individual Report has five sections of information on student performance:

A. Grade Tested, Test Date and SAT-10 Level /Form, and SAT-10 Norms
B. Your student's Performance Level and score in mathematics;
C. The mathematics scaled score for your student compared to other students tested at the same grade level in the school;
   The average mathematics scaled score for the school (for students tested at the same grade as your student);
   The average mathematics scaled score for the district (for students tested at the same grade as your student);
   The average mathematics scaled score for the State of Delaware (for students tested at the same grade as your student);
D. Your student's SAT-10 percentile rank for mathematics for the grade level tested;
E. Your student's Instructional Needs in mathematics.

Each section of the Mathematics Individual Report is discussed below. A sample of a Mathematics Individual Report is found in the Appendix.

A. Grade Tested, Test Date, SAT-10 Level/Form and SAT-10 Norms

Like the Reading Report, this part of the score report provides general information about the administration of the test:

- The grade level at which your student was tested is reported next to **Grade Tested:**
- The date your student took this test is then listed after **Test Date:**
- Following the test date is the **SAT-10 Level/Form**. The SAT-10 is an acronym for the *Stanford Achievement Test-Tenth Edition*. The SAT-10 is a standardized, nationally administered test. The level refers to test appropriate for the grade tested. The form refers to one that is secure for statewide use only.

- To create the national **SAT-10 Norms**, this standardized test was administered to a representative sample of from 225,000 to 250,000 students nationwide. Their score results are referred to as national norms, or more usually, "norms". The norms become a reference point against which to compare the performance of any student who then takes the SAT-10. The norms for this test were developed in 2002.

B. Performance Levels: Mathematics

Performance Level Cut Point Development for Grades 3 through 10

During the fall of 1999, a group of 188 participants consisting of 83% teachers, 7% administrators, 9% parents, and 1% organization or community members, met under the guidance of Harcourt Assessment, Inc., to develop the "Meets the Standard" and "Exceeds the Standard" cut points. A subset of these participants developed the cut points for mathematics. The methodology used by judges for setting the cut points is referred to as "Item Mapping" by some measurement companies, and "Bookmarking" by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and insert "bookmarks" at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges' recommendations for the "Meets the Standard" and "Exceeds the Standard" performance level had been finalized, the Department of Education, with the technical assistance of Harcourt Assessment, Inc., calculated the cut points for the "Below the Standard" and "Well Below the Standard" levels, and the cut point for the "Distinguished" performance level. In the summer of 2005, the cut scores for Grades 3, 5, 8 and 10 were revisited and some adjustments were made. The cut scores for grades 2, 4, 6, 7, and 9 were also set at that time.

There are five performance levels in Mathematics that are consistent with Delaware's accountability law. The following describe each level:

Performance Level	
Level 5	Distinguished Performance
Level 4	Exceeds the Standard
Level 3	Meets the Standard
Level 2	Below the Standard
Level 1	Well Below the Standard

The Delaware Performance Level Descriptors (PLDs) provide a summary of what students should know and be able to do in mathematics at grades 2-10 as measured by the DSTP. The content summary is based on the Delaware Grade Level Expectations (GLEs). This is followed by a cognitive description of the performance on the Delaware Student Testing Program (DSTP) that differentiates *groups* of students at the five levels. Students at Performance Level 3 meet the standards for that grade. Students above Performance Level 3 exceed the standards and those below, need intervention. The Department of Education published the "Performance Level Descriptors for Reading, Writing and Mathematics" in booklets by grade level which were sent to schools for distribution to parents and guardians along with the individual student reports. These booklets with the descriptors are also available on the DSTP website.

Cut Points for Mathematics for Grades 2 through 10

The DSTP Mathematics scale scores by performance level are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 2	-------	350 or less	351-403	404 or more	-------
Grade 3	380 or less	381 to 406	407 to 460	461 to 498	499 or more
Grade 4	407 or less	408 to 431	432 to 476	477 to 504	505 or more
Grade 5	432 or less	433 to 450	451 to 504	505 to 527	528 or more
Grade 6	450 or less	451 to 465	466 to 517	518 to 538	539 or more
Grade 7	458 or less	459 to 471	472 to 519	520 to 542	543 or more
Grade 8	468 or less	469 to 486	487 to 526	527 to 548	549 or more
Grade 9	485 or less	486 to 513	514 to 553	554 to 569	570 or more
Grade 10	505 or less	506 to 522	523 to 558	559 to 577	578 or more

C. Score Comparisons of Grade Tested: Mathematics

This section contains score comparisons of your student's mathematics score against the students tested at the same grade level in the school. For mathematics, your student's score is found on the line between the lowest scale score and the maximum scale score. You can also compare your student's performance to the performance of the students tested at the same grade level in the district and in the state.

The Individual Student's Score

In this section you can see how well your student is performing as compared to the students tested at the same grade level in your student's school by locating the position of your student's score on the scale. You can also compare your student's performance to the performance of the students tested at the same grade level in the district and in the state.

The School's Score

Also, you can see how the students tested at the same grade level in your school are performing on mathematics compared to the students in the district who took the same grade level test by examining the position of the school's score on the scale. You can also compare the school's score to the performance of the students tested at the same grade level in the state.

The District's Score

Also, you can see how all the students tested at the same grade level in your school district are performing on mathematics compared to all the Delaware students who took the test at the same grade level by examining the position of the district's score on the scale relative to the state's score.

The State of Delaware's Score

In addition, you can see how the students who took the same grade level test in the State of Delaware are performing on mathematics by examining the position of the state's score on the scale.

D. A Student's Percentile Rank For Mathematics

The percentile rank for mathematics is obtained from the abbreviated form of the Stanford Achievement Test (SAT-10) that is embedded in the DSTP. The SAT-10 is included for several reasons:

- It allows comparisons of the mathematics performance of Delaware students on a nationally used standardized test, thus permitting the comparison of student performance on general mathematics proficiency to other students in the nation.
- A subset of the SAT-10 items is directly related to the Delaware Mathematics Standards and is part of the DSTP score.
- The embedded SAT-10 items permit the important and efficient psychometric process of equating and scaling the DSTP test from one administration of the test to subsequent administrations of the test.

A percentile rank is a way of looking at how well your student performed on the SAT-10 mathematics test relative to all the same grade students in the national norms. Percentile rank gives you information as to what percentage of **same grade** students in the national norms scored higher or lower than your student. For example, if your

student had a mathematics percentile score of 98, it means that 98 percent of the students in the national norms scored **below** your student and only 2 percent scored **at or higher than your student**. If your student had a Mathematics percentile of 45, it means that 45 percent of the students in the norms scored **below** your student and 55 percent scored **at or higher than your student**. If your student had a percentile score of 20, it means that 20 percent of students in the norms scored **below** your student and that 80 percent scored **at or higher than your student**.

In some cases a student might score higher or lower on the SAT-10 mathematics test than on the DSTP mathematics test. It must be keep in mind that a student's SAT-10 percentile rank score cannot be directly compared to the relative scale position of the DSTP mathematics test score. There are several reasons why these scores are non-comparable:

- The SAT-10 mathematics test is not directly aligned with Delaware mathematics content standards. A portion of the SAT-10 mathematics test is related to the mathematics content standards and is included in the DSTP score, whereas the DSTP mathematics test is **completely aligned** with the mathematics content standards.
- The SAT-10 is entirely comprised of multiple-choice items, whereas the DSTP is comprised of multiple choice, short answer, and extended response items. Writing short answers and extended responses require very different skills than selecting the answer on a multiple-choice item. Because the items on the SAT-10 and the DSTP mathematics test are very different in format (multiple choice vs. multiple choice, short answer, and extended response), they measure very different aspects of mathematics and their results cannot be directly compared.
- The score for the DSTP mathematics test is based on a substantially larger number of test items than the score for the SAT-10 mathematics test. This means that the DSTP mathematics test samples a larger portion of the student's mathematical skills as defined by the Mathematics content standards than does the SAT-10.

E. Instructional Needs: Mathematics

This section of the report provides feedback that depends on what items your student answered correctly and incorrectly, and/or how the items were answered. Each student's report will likely differ from another student's report. For example, if the student answered incorrectly a series of mathematics items concerning fractions, a comment would be produced that reads: In order to improve in Number Concepts, "your child should work on modeling fractions and decimals with situations and pictures." The classroom teacher can give you concrete suggestions on how you might help your student improve performance for each instructional needs comment that might be produced.

SECTION IV: Understanding the Science and Social Studies Report

For grades 4, 6, 8 and 11, the Science and Social Studies Individual Report has four sections of information on student performance:

A. Grade Tested and Test Date;
B. Your student's Performance Levels and scores on science and social studies;
C. The science and social studies scaled scores for your student compared to other students tested at the same grade level in the school;
   The average science and social studies scaled score for the school (for students tested at the same grade as your student);
   The average science and social studies scaled scores for the district (for students tested at the same grade as your student);
   The average science and social studies scaled scores for the State of Delaware (for students tested at the same grade as your student);
D. Your student's points earned compared with the average points earned by other students tested at the same grade level in the school, district and state for each area within the science test: inquiry, physical science, earth science, and life science. Your student's points earned compared with the average points earned by other students tested at the same grade level in the school, district and state for each area within social studies: civics, economics, geography, and history.

Each section of the Science and Social Studies Individual Report is discussed below.

A. Grade Tested and Test Date

Like the Reading and Mathematics Report, this part of the score report provides general information about the administration of the test:

- The grade level (04, 06, 08, or 11) at which your student was tested is reported next to **Grade Tested:**
- The date your student took this test is listed behind **Test Date:**

Unlike the reading and mathematics score report, there are no national standardized tests in science and social studies that match the Delaware Content Standards, thus no national norms are available.

B. Performance Levels: Science and Social Studies

Performance Level Cut Point Development

During the summer of 2001 for grades 8 and 11 and winter of 2002 for grades 4 and 6, a group of teachers, administrators, parents, and organization or community members met under the guidance of Harcourt Assessment, Inc., to develop the "Meets the Standard" and "Exceeds the Standard" cut points. The methodology used by judges for setting the cut points is referred to as "Item Mapping" by some measurement companies, and "Bookmarking" by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and insert "bookmarks" at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges' recommendations for the "Meets the Standard" and "Exceeds the Standard" performance level had been finalized, the Department of Education, with the technical assistance of Harcourt Assessment, Inc., calculated the cut points for the "Below the Standard" and "Well Below the Standard" levels, and the cut point for the "Distinguished" performance level.

The five performance levels in both science and social studies are consistent with Delaware's accountability law. The following describe each level:

Performance Level	
Level 5	Distinguished Performance
Level 4	Exceeds the Standard Performance
Level 3	Meets the Standard Performance
Level 2	Below the Standard Performance
Level 1	Well Below the Standard Performance

Cut Points for Science

The DSTP Science scale scores by performance levels are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 4	285 or less	286 to 299	300 to 324	325 to 335	336 or more
Grade 6	284 or less	285 to 299	300 to 324	325 to 334	335 or more
Grade 8	279 or less	280 to 299	300 to 324	325 to 337	338 or more
Grade 11	281 or less	282 to 299	300 to 324	325 to 334	335 or more

Cut Points for Social Studies

The DSTP Social Studies scale scores by performance levels are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 4	284 or less	285 to 299	300 to 324	325 to 336	337 or more
Grade 6	285 or less	286 to 299	300 to 324	325 to 334	335 or more
Grade 8	281 or less	282 to 299	300 to 324	325 to 334	335 or more
Grade 11	275 or less	276 to 299	300 to 324	325 to 336	337 or more

C. Score Comparisons of Grade Tested: Science and Social Studies

This section contains score comparisons of your student's science and social studies scores against the students tested at the same grade level in the school. For science, your student's score is found on the line between the lowest scale score and the maximum scale score. You can also compare your student's performance to the performance of the students tested at the same grade level in the district and in the state. The scale on the right is the social studies score and is structured similarly.

The Individual Student's Score

In this section you can see how well your student is performing as compared to the students tested at the same grade level in your student's school by locating the position of your student's score on the scale. You can also compare your student's performance to the performance of the students tested at the same grade level in the district and in the state.

The School's Score

You can see how the students tested at the same grade level in the school are performing compared to the students tested at the same grade level in the district or state by examining the position of the school's score on the scale.

The District's Score

Also, you can see how the students tested at the same grade level in the school district are performing compared to students statewide who took the same grade level test by examining the position of the district's score on the scale.

The State of Delaware's Score

In addition, you can see how the students who took the science and social studies tests at the same grade level in the State of Delaware are performing by examining the position of the state's score on the scale.

D. Science and Social Studies Content Areas

Science

This section provides feedback that reflects the number of items your student answered correctly in each of the following areas of science: inquiry, physical science, earth science, and life science. Listed in the left hand column is the number of points possible in each area. The second column shows the number of points your student scored in each area. The corresponding columns give the average number of points scored by other students tested at the same grade level in the school, district, and state. The classroom teacher can give you concrete suggestions on how you might help your student improve performance in any area in which your student may have a low score.

Social Studies

This section of the report provides feedback that depends on the number of items your student answered correctly in each of the following areas of social studies: civics, economics, geography, and history. Listed in the left hand column is the number of points possible in each area. The second column shows the number of points your student scored in each area. The corresponding columns give the average number of points scored by other students tested at the same grade level in the school, district, and state. The classroom teacher can give you concrete suggestions on how you might help your student improve performance in any area in which your student may have a low score.

Section VI: Suggestions on How to Help Students Do Better In School

Numerous research studies show that:

- When parents are involved, students achieve more, produce higher test scores, have better attendance records and complete homework more consistently.
- The greater the parental involvement, the greater the student achievement.
- When parents are involved, students exhibit more positive attitudes and behavior in school.
- Students whose parents are involved have higher graduation rates and higher post-secondary education enrollment rates.

Helping the student at home

Learning style

Get to know your student's learning style. People learn in different ways. For example, one student may learn best by watching closely before attempting a task. Another student may feel she needs to touch everything before she understands it. Yet another may ask for constant explanations, such as "What's that thing do?" Learning one way is not better than learning another way. If you are not sure of your student's learning style, ask the teacher. Recognize and reinforce the preferred learning style and make learning more natural for your student.

General help suggestions

There are many things you as a parent can do to ensure a student's success in school. For example:

- Send the student to school every day, well rested and fed, with a positive comment about him/her.
- Tell the student how proud you are of their accomplishments, even small ones, and do this often.
- Take an active interest in the student's schooling, and indicate how much you care about learning.

- Show pride in work that is shared with you by your student. For younger students, display it in special places in your home.
- Use a wall, the refrigerator door, or a bulletin board to display schoolwork.
- Work together on daily household tasks to help make the connection between things learned in school and their application in daily life;
- Provide a variety of interesting reading materials in your home. These can include age-appropriate books, magazines, the local newspaper, and books on computer disks.

Homework suggestions

- Find out if your school has a homework policy. If it does, make sure that you understand the policy and your student's responsibilities connected to it. Expect homework every night, especially in the upper grades.
- Provide an area in your home where school materials can be kept secure. If possible, provide an area for doing schoolwork that has a minimum of interruptions.
- Establish regular blocks of time when you expect schoolwork to be done.
- Follow-up with, and monitor homework. Be consistent in your expectations.
- As appropriate and as much as possible, work together on school-related projects.

Communication with the teacher and school

- Communicate with the teacher and other school personnel regularly. For example, call, write notes, or if possible, stop in at school on the way to work or on a lunch break.
- Never miss a parent-teacher conference. Use the opportunity to share relevant information with a teacher.
- Ask the teacher for ways you can work at home to reinforce what the teacher has taught in class.

Specific help suggestions

There are many specific things you as a parent can do to ensure student success in school. Below are several suggestions.

- Turn off the television for a set period each day. Together agree on the time and stick to the schedule set. During this time encourage creative activities, reading or homework activities.
- Together visit the local library and obtain a library card. Encourage reading for fun.
- When tests and reports come home, take the emphasis off the grades and focus instead on the information and skills learned. Ask simple questions to provide the student an opportunity to show what has been learned. Increase the student's

knowledge by sharing anything you know about the topic, or by looking it up in an encyclopedia.

- Ask younger children to read portions of a textbook to you while you fix dinner, sort laundry, or drive the car. When they finish the section, discuss any questions the book presents in order to expand their comprehension of the ideas in the text.
- When you ask "What happened in school today?" and get the answer, "Nothin' much," it is time to start a sentence that each person in the family must complete in turn. For example, "The most surprising thing I learned today was…" Everyone in the family takes a turn sharing their experiences.

Parent-Teacher Conferences

A parent-teacher conference is a conversation between a parent and the student's teacher. There is no need for tension, butterflies, and/or frustration. Although a certain amount of nervousness is natural, it may help to remember that teachers can be nervous when talking with parents too. Keep in mind that many teachers are parents, and have experienced your feelings.

If parents and teachers already know each other from previous contacts, the conference becomes much easier and goes much more smoothly. Therefore, it is a good idea to create a relationship with the teacher as early as possible. This shows teachers you care about the educational process. A simple phone call to the teacher introducing yourself and explaining that you would like the teacher to contact you regarding any issues or concerns she/he may develop during the school year is a good start. Remember that teachers can't leave class to take your call, so you will need to inquire about a good time to contact them.

APPENDIX: SAMPLE REPORTS

Following are samples of the various reports from the 2010 administration of the DSTP. These reports **do not contain real data**. The reports included are:

1. Reading Individual Report – Grade 8 Sample
2. Mathematics Individual Report – Grade 3 Sample
3. Science and Social Studies Individual Report – Grade 8 Sample

2010 DELAWARE STUDENT TESTING PROGRAM

Reading Individual Report for

FIRSTNAME M LASTNAME

Student ID#: 0000000000

SCHOOL: SAMPLE SCHOOL - 000
DISTRICT: SAMPLE DISTRICT - 00

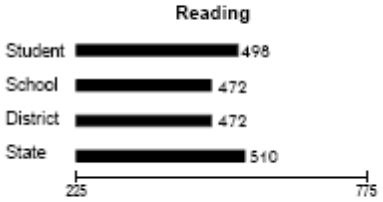
GRADE TESTED: 08
TEST DATE: 03/10/10
SAT10 LEVEL/FORM: A2/B
SAT10 NORMS: 2002 PD 13

PERFORMANCE LEVELS

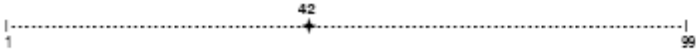
This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Reading performance of this student falls into one of five levels.

Performance Levels are:	Reading Level and Score
Distinguished	
Exceeds the standard	
Meets the standard	✓ 498
Below the standard	
Well Below the standard	

SCORE COMPARISONS OF GRADE TESTED



Certain items on the Reading part of the test were administered to a national sample of students. The percentile below represents how your child performed on those items compared to other students in the same grade throughout the country.



INSTRUCTIONAL NEEDS

To improve performance in READING, your child should work on:

- *determining meaning by reading more carefully to retell or restate information from the text.*
- *interpreting meaning by drawing conclusions and making inferences about ideas in a text and understanding why a text was written.*
- *interpreting meaning by understanding elements of text (e.g., figurative language, genre, fact/opinion, comparisons).*
- *extending meaning by drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts.*
- *extending meaning by evaluating text for bias and accuracy in order to formulate and support opinions.*

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Please see your child's teacher for more information.

Process No.: 17788999-0DS8ER1-0000-10210-9
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2010 DELAWARE STUDENT TESTING PROGRAM

Mathematics Individual Report for

FIRSTNAME M LASTNAME

Student ID#: 0000000000

SCHOOL: SAMPLE SCHOOL - 000
DISTRICT: SAMPLE DISTRICT - 00

GRADE TESTED: 03
TEST DATE: 03/10/10
SAT10 LEVEL/FORM: P3/B
SAT10 NORMS: 2002 PD 13

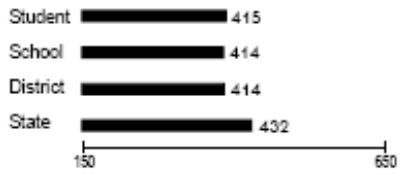
PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Mathematics performance of this student falls into one of five levels.

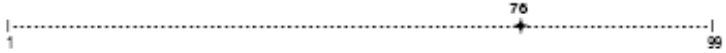
Performance Levels are:	Mathematics Level and Score
Distinguished	
Exceeds the standard	
Meets the standard	✓ 415
Below the standard	
Well Below the standard	

SCORE COMPARISONS OF GRADE TESTED

Mathematics



Certain items on the Mathematics part of the test were administered to a national sample of students. The percentile below represents how your child performed on those items compared to other students in the same grade throughout the country.



INSTRUCTIONAL NEEDS

To improve performance in MATHEMATICS, your child should work on:

Number Concepts
- *using estimation skills to approximate an answer.*
- *using fractions to represent a whole.*

Patterns, Algebra, and Functions
- *recognizing and extending a variety of patterns.*

Geometry
- *recognizing and transforming simple geometric figures.*
- *analyzing properties of simple geometric figures.*
- *measuring length of simple figures.*

Probability and Statistics
- *determining the likelihood of simple events.*

Reasoning and Communication
- *solving multi-step problems.*
- *communicating mathematical arguments.*

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Please see your child's teacher for more information.

Process No.: 17788999-0DS3MR1-0000-10210-9
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2010 DELAWARE STUDENT TESTING PROGRAM

Science & Social Studies Individual Report for

FIRSTNAME M LASTNAME

Student ID#: 0000000000

SCHOOL: SAMPLE SCHOOL - 000
DISTRICT: SAMPLE DISTRICT - 00

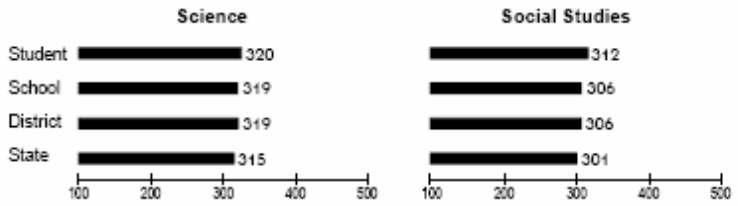
GRADE TESTED: 08
TEST DATE: 05/18/10

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Science and Social Studies performance of this student falls into one of five levels.

Performance Levels are:	Science Level and Score	Social Studies Level and Score
Distinguished		
Exceeds the standard		
Meets the standard	✓ 320	✓ 312
Below the standard		
Well Below the standard		

SCORE COMPARISONS OF GRADE TESTED



CONTENT AREAS

SCIENCE:

	Total Points Possible	Student Points Earned	Average Points Earned School	District	State
Inquiry	13	10	10.1	10.1	10.1
Physical Science	19	11	9.5	9.4	9.1
Earth Science	16	10	7.9	7.8	7.2
Life Science	20	13	14.9	15.1	14.4

SOCIAL STUDIES:

	Total Points Possible	Student Points Earned	Average Points Earned School	District	State
Civics	17	9	9.5	9.5	9.0
Economics	17	12	10.8	10.7	10.0
Geography	17	10	7.9	7.7	6.9
History	17	12	10.9	10.7	9.9

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Please see your child's teacher for more information.

Process No.: 17788999-0DS8SR1-0000-10210-9
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