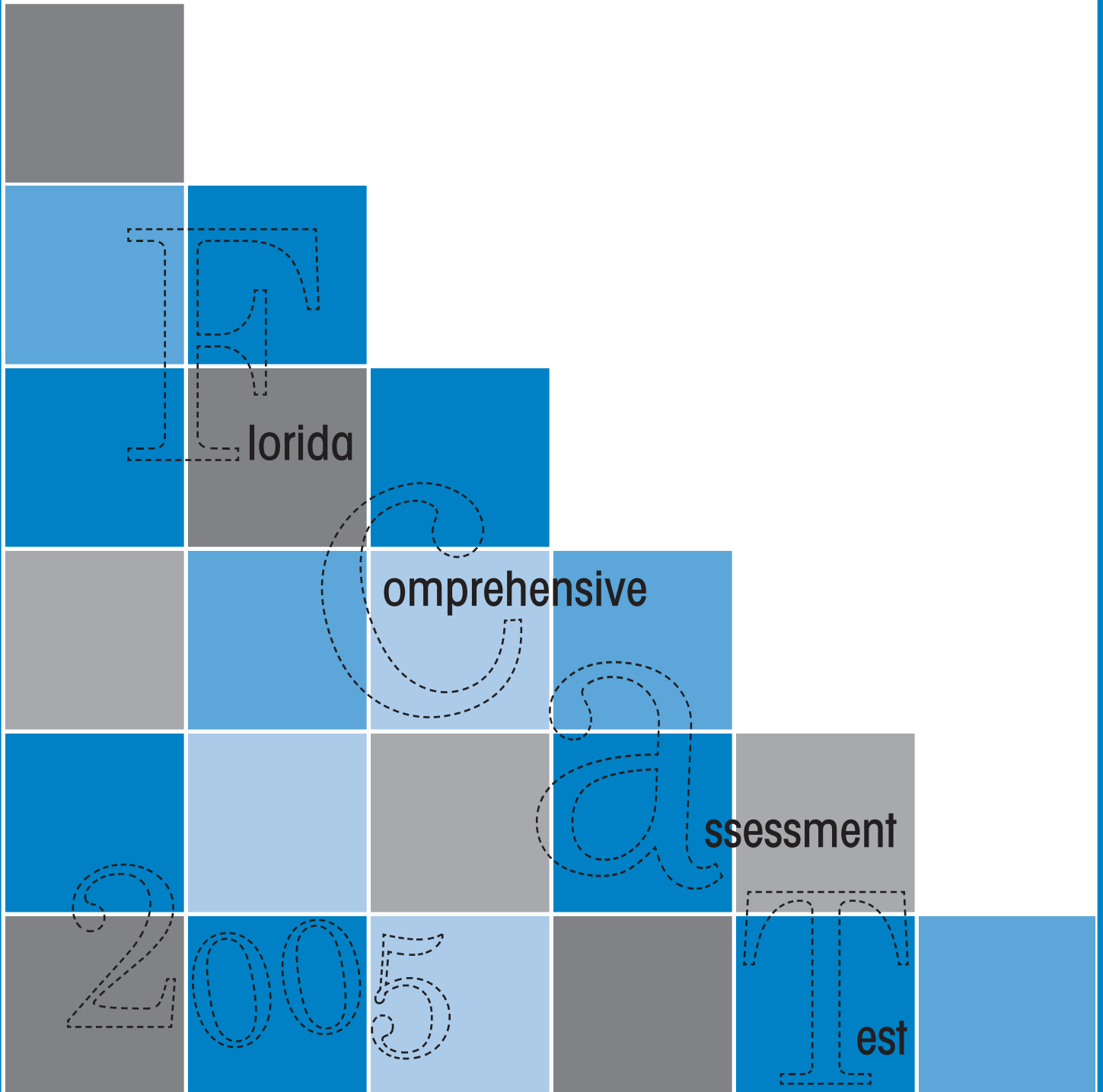


2005

FCAT

Florida Comprehensive Assessment Test

# Understanding FCAT Reports 2005



# FLORIDA DEPARTMENT OF EDUCATION



John L. Winn  
Commissioner of  
Education

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May 2005

Dear Educator:

Florida students are rising to the challenge of the *Sunshine State Standards*. These standards specify the knowledge and skills that students should have as they move from grade to grade and later move into higher education or careers in the workplace. The Florida Comprehensive Assessment Test (FCAT) provides one measure of students' knowledge and abilities in reading, writing, mathematics, and science.

*Understanding FCAT Reports 2005* has been prepared so you can familiarize yourself with the 2005 FCAT reports and help parents and students understand them. The booklet includes sample reports, explanatory text, a glossary of assessment terms, and information about the *Sunshine State Standards* content assessed on the FCAT. Information about the content of the new FCAT NRT administered in 2005, the *Stanford Achievement Test, Tenth Edition (Stanford 10 or SAT10)*, is also included.

Thank you for your good work providing Florida students with a high-quality education built on the *Sunshine State Standards*.

Sincerely,

A handwritten signature in cursive script that reads "John L. Winn".

# Table of Contents

## INTRODUCTION

Purpose of the FCAT . . . . .	2
Grade Levels Tested . . . . .	2
Question Formats . . . . .	2
Who is Tested? . . . . .	2
FCAT Reports Chart . . . . .	3
Achievement Levels . . . . .	4
Graduation Requirement . . . . .	5
No Data Reported . . . . .	5

## STUDENT REPORTS

Certificates of Achievement . . . . .	6
SSS Grade 10 Pass/Fail Student Label . . . . .	6
<i>Sunshine State Standards</i> Reading and Mathematics Retake Tests Student Report . . . . .	6
<i>Sunshine State Standards</i> Reading and Mathematics Student and Parent Report . . . . .	7
<i>Sunshine State Standards</i> Science Student and Parent Report . . . . .	8
Writing Student Report . . . . .	9
Norm-Referenced Test Student Report . . . . .	10
Performance Task Student Report—Reading, Mathematics, and Science . . . . .	11

## PERFORMANCE TASKS, TOP-SCORE RESPONSES, AND SCORING RUBRICS

Reading Performance Tasks . . . . .	12
FCAT Reading Holistic Rubrics . . . . .	13
Mathematics Performance Tasks . . . . .	14
FCAT Mathematics Holistic Rubrics . . . . .	17
Science Performance Tasks . . . . .	18
FCAT Science Holistic Rubrics . . . . .	21
FCAT Writing+ Holistic Rubrics . . . . .	22

## SCHOOL, DISTRICT, AND STATE REPORTS

<i>Sunshine State Standards</i> Reports of Results—Reading, Mathematics, and Science . . . . .	23
Norm-Referenced Test Reports of Results—Reading and Mathematics . . . . .	24
Reports of Results—Writing . . . . .	25
Reports of School Means—Writing . . . . .	26
<i>Sunshine State Standards</i> Demographic Reports—Reading, Mathematics, and Science . . . . .	27
Demographic Reports—Writing . . . . .	28
Norm-Referenced Test Demographic Reports—Reading and Mathematics . . . . .	29

## CONTENT ASSESSED ON THE FCAT

<i>Sunshine State Standards</i> —Reading . . . . .	30
<i>Sunshine State Standards</i> —Mathematics . . . . .	32
<i>Sunshine State Standards</i> —Science . . . . .	33
<i>Sunshine State Standards</i> —Writing+ . . . . .	35
Norm-Referenced Test—Reading and Mathematics . . . . .	36

GLOSSARY . . . . .	37
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# Introduction

This booklet has been prepared to help you understand the reports for the Florida Comprehensive Assessment Test (FCAT). It includes samples of the reports, explanations of the reports, a glossary of the terms used in these reports, and the *Sunshine State Standards* (SSS) and the norm-referenced test (NRT) content assessed on FCAT. Data in the reports are fictional but show the type of information reported. Although the sample reports in this booklet are for Grade 10 or 11, the explanations provided apply to all grade levels except where otherwise noted.

## Purpose of the FCAT

The purpose of the FCAT is to assess student achievement of the SSS benchmarks in reading, mathematics, science, and writing. The FCAT also includes norm-referenced tests (NRT) in reading comprehension and mathematics problem solving, which allow for comparing the performance of Florida students with students across the nation.

## Grade Levels Tested

- FCAT SSS Reading and Mathematics – Grades 3–10
- FCAT Writing+ – Grades 4, 8, and 10 (In 2005, scores will only be reported for the essay portion of FCAT Writing+. Students will not receive scores for the multiple-choice portion, which was field-tested in 2005.)
- FCAT SSS Science – Grades 5, 8, and 11
- FCAT NRT Reading and Mathematics – Grades 3–10

## Question Formats

- **Multiple-choice questions** are worth 1 point each and appear at all grade levels on all FCAT SSS and FCAT NRT tests. For FCAT Reading, Mathematics, and Science tests students choose the best answer from four answer choices. For the multiple-choice portion of FCAT Writing+, students choose the best answer from either three or four possible answer choices.
- **Gridded-response questions** are worth 1 point each and appear on the FCAT SSS Mathematics test in Grades 5–10 and the FCAT SSS Science test in Grades 8 and 11. These questions require students to determine a numeric answer and bubble it in on a grid.
- **Performance tasks** are part of the FCAT SSS for students in Grades 4, 5, 8, 10, and 11. These tasks require students to answer reading questions in their own words, show their solutions to mathematics questions, or respond to science questions. There are two types of performance tasks: short-response and extended-response. Short-response tasks take about 5 minutes to answer and receive 0, 1, or 2 points. Extended-response tasks take 10–15 minutes to complete and receive 0, 1, 2, 3, or 4 points. Answers to performance tasks are scored using a holistic scoring rubric. (Copies of the holistic scoring rubrics for each subject are provided in this booklet.) A minimum of two trained scorers independently score each answer. The final score is the result of these multiple evaluations.
- For the essay portion of FCAT Writing+, students in Grades 4, 8, and 10 write an **essay** for an assigned topic (prompt). Students in Grade 4 write either an expository or a narrative essay while students in Grades 8 and 10 write either an expository or a persuasive essay. The highest score a student can receive is a 6. Student essays are scored using a holistic scoring rubric. Two trained scorers independently score each essay. The score reported is the average of both scorers' scores. (A copy of the holistic scoring rubric for Writing+ is provided in this booklet.)

## Who is Tested?

Most students, including limited English proficient (LEP) and exceptional student education (ESE) students, enrolled in the tested grade levels participate in the FCAT administration. Administration accommodations are available and provided to eligible LEP and ESE students.

## FCAT Reports

FCAT results are reported in several formats. Reports are distributed to students, schools, and districts. The table on the next page provides a list of the sample Grade 10 or 11 reports included in this booklet, the grade levels at which they apply, and the page number on which they are found. Keep in mind that although this booklet does not contain samples of all reports, the samples provided are similar in content and layout to other reports.

# FCAT Reports Chart

	FCAT Report Title	Grades	Page of Report Description
<b>Student Reports</b>	Certificate of Achievement	3–10	6*
	SSS Grade 10 Pass/Fail Student Label	10–Adult	6*
	<b>SSS Reading and SSS Mathematics Retake Tests Student Report</b>	10–Adult	6*
	<b>SSS Reading and SSS Mathematics Student and Parent Report</b>	3–Adult	7*
	<b>SSS Science Student and Parent Report</b>	5, 8, and 11	8*
	<b>Writing Student Report</b>	4, 8, and 10	9*
	<b>Reading &amp; Mathematics NRT Student Report</b>	3–10	10*
	<b>Reading SSS Performance Task Student Report</b>	4, 8, and 10	11*
	Mathematics SSS Performance Task Student Report	5, 8, and 10	11
Science SSS Performance Task Student Report	5, 8, and 11	11	
<b>School Reports</b>	Reading SSS School Report of Students	3–Adult	23
	Mathematics SSS School Report of Students	3–Adult	23
	Science SSS School Report of Students	5, 8, and 11	23
	Reading & Mathematics NRT School Report of Students	3–10	24
	Writing School Listing of Achievement	4, 8, and 10	25
	Writing School Results	4, 8, and 10	25
	Reading & Mathematics SSS School Demographic Report	3–Adult	27
	Science SSS School Demographic Report	5, 8, and 11	27
	Writing School Demographic Report	4, 8, and 10	28
Reading & Mathematics NRT School Demographic Report	3–10	29	
<b>District Reports</b>	<b>Reading SSS District Report of Schools</b>	<b>3–Adult</b>	<b>23*</b>
	Mathematics SSS District Report of Schools	3–Adult	23
	Science SSS District Report of Schools	5, 8, and 11	23
	Reading SSS District Report of Scores	3–10	23
	Mathematics SSS District Report of Scores	3–10	23
	Science SSS District Report of Scores	5, 8, and 11	23
	<b>Reading &amp; Mathematics NRT District Report of Schools</b>	<b>3–10</b>	<b>24*</b>
	Reading & Mathematics NRT District Report of Scores	3–10	24
	<b>Writing District Results</b>	<b>4, 8, and 10</b>	<b>25*</b>
	<b>Writing District Report of School Means and Score Point Distributions</b>	<b>4, 8, and 10</b>	<b>26*</b>
	<b>Reading &amp; Mathematics SSS District Demographic Report</b>	<b>3–Adult</b>	<b>27*</b>
	Science SSS District Demographic Report	5, 8, and 11	27
<b>Writing District Demographic Report</b>	<b>4, 8, and 10</b>	<b>28*</b>	
<b>Reading &amp; Mathematics NRT District Demographic Report</b>	<b>3–10</b>	<b>29*</b>	
<b>State Reports</b>	Reading SSS State Report of Districts	3–Adult	23
	Mathematics SSS State Report of Districts	3–Adult	23
	Science SSS State Report of Districts	5, 8, and 11	23
	Reading SSS State Report of Scores	3–10	23
	Mathematics SSS State Report of Scores	3–10	23
	Science SSS State Report of Scores	5, 8, and 11	23
	Reading & Mathematics NRT State Report of Districts	3–10	24
	Reading & Mathematics NRT State Report of Scores	3–10	24
	Writing State Results	4, 8, and 10	25
	Writing State Report of District Means and Score Point Distributions	4, 8, and 10	26
	Reading & Mathematics SSS State Demographic Report	3–Adult	27
	Science SSS State Demographic Report	5, 8, and 11	27
	Writing State Demographic Report	4, 8, and 10	28
	Reading & Mathematics NRT State Demographic Report	3–10	29

\*Titles printed in bold are displayed in this booklet.

## Achievement Levels

Achievement levels describe the success a student has achieved on the Florida *Sunshine State Standards* tested on the FCAT. Achievement levels range from 1 to 5, with Level 1 being the lowest and Level 5 being the highest.

- Level 5** This student has success with the most challenging content of the *Sunshine State Standards*. A student scoring in Level 5 answers most of the test questions correctly, including the most challenging questions.
- Level 4** This student has success with the challenging content of the *Sunshine State Standards*. A student scoring in Level 4 answers most of the test questions correctly, but may have only some success with questions that reflect the most challenging content.
- Level 3** This student has partial success with the challenging content of the *Sunshine State Standards*, but performance is inconsistent. A student scoring in Level 3 answers many of the test questions correctly but is generally less successful with questions that are the most challenging
- Level 2** This student has limited success with the challenging content of the *Sunshine State Standards*.
- Level 1** This student has little success with the challenging content of the *Sunshine State Standards*.

The tables below list the achievement levels for FCAT SSS Reading and Mathematics along with the scale score ranges associated with each achievement level, by grade level. The achievement levels for FCAT SSS Science and FCAT Writing+ will be determined in the future. The first table lists the achievement levels and scale score ranges that are used to determine the student's success on the FCAT. The second table lists the achievement levels for the FCAT Score (Developmental Scale Score).

FCAT Achievement Levels										
Reading					Grade	Mathematics				
Level 1	Level 2	Level 3	Level 4	Level 5		Level 1	Level 2	Level 3	Level 4	Level 5
100-258	259-283	284-331	332-393	394-500	3	100-252	253-293	294-345	346-397	398-500
100-274	275-298	299-338	339-385	386-500	4	100-259	260-297	298-346	347-393	394-500
100-255	256-285	286-330	331-383	384-500	5	100-287	288-325	326-354	355-394	395-500
100-264	265-295	296-338	339-386	387-500	6	100-282	283-314	315-353	354-390	391-500
100-266	267-299	300-343	344-388	389-500	7	100-274	275-305	306-343	344-378	379-500
100-270	271-309	310-349	350-393	394-500	8	100-279	280-309	310-346	347-370	371-500
100-284	285-321	322-353	354-381	382-500	9	100-260	261-295	296-331	332-366	367-500
100-286	287-326	327-354	355-371	372-500	10	100-286	287-314	315-339	340-374	375-500

FCAT Achievement Levels for the FCAT Score (Developmental Scale Score)										
Reading					Grade	Mathematics				
Level 1	Level 2	Level 3	Level 4	Level 5		Level 1	Level 2	Level 3	Level 4	Level 5
86-1045	1046-1197	1198-1488	1489-1865	1866-2514	3	375-1078	1079-1268	1269-1508	1509-1749	1750-2225
295-1314	1315-1455	1456-1689	1690-1964	1965-2638	4	581-1276	1277-1443	1444-1657	1658-1862	1863-2330
474-1341	1342-1509	1510-1761	1762-2058	2059-2713	5	569-1451	1452-1631	1632-1768	1769-1956	1957-2456
539-1449	1450-1621	1622-1859	1860-2125	2126-2758	6	770-1553	1554-1691	1692-1859	1860-2018	2019-2492
671-1541	1542-1714	1715-1944	1945-2180	2181-2767	7	958-1660	1661-1785	1786-1938	1939-2079	2080-2572
886-1695	1696-1881	1882-2072	2073-2281	2282-2790	8	1025-1732	1733-1850	1851-1997	1998-2091	2092-2605
772-1771	1772-1971	1972-2145	2146-2297	2298-2943	9	1238-1781	1782-1900	1901-2022	2023-2141	2142-2596
844-1851	1852-2067	2068-2218	2219-2310	2311-3008	10	1068-1831	1832-1946	1947-2049	2050-2192	2193-2709

## Graduation Requirement

Students who expect to graduate from high school in the 2004–2005 school year and beyond must earn passing scores on the Reading and Mathematics *Sunshine State Standards* portions of the Grade 10 FCAT. After Grade 10, there will be additional opportunities to earn passing scores by taking the Reading and Mathematics *Sunshine State Standards* Retake tests if students are not successful on the first attempt.

The passing scores for the Grade 10 FCAT Reading and Mathematics SSS and Retake tests are determined by the State Board of Education and are as follows:

FCAT SSS Reading <b>and</b> Reading Retake Test	1926 (Scale Score of 300) or above
FCAT SSS Mathematics <b>and</b> Mathematics Retake Test	1889 (Scale Score of 300) or above

Students who were originally scheduled to graduate in 2003 are still eligible for a lower passing score of 1856 (Scale Score of 287) or higher on the SSS Reading test and 1868 (Scale Score of 295) or higher on the SSS Mathematics test.

## No Data Reported

The following abbreviations may appear on some reports.

**NT** (Not Tested) indicates that no data are reported for the student because he or she was not tested for that subject.

**NR** (Not Reported) indicates that no data are reported for the student because he or she answered too few questions for that subject or the test was invalidated.

**NA** (Data Not Available) indicates that data are not reported for the student because no data were available or that the data do not apply at that grade level.

**NF** (Not Found) This means that no prior year data were available for the student or that the student's record for 2005 was not matched to the student's record for 2001, 2002, 2003, and/or 2004.

A single asterisk (\*) on the writing reports indicates that percentages are rounded to the nearest percent and that if the percentage is less than 0.5%, it is written as < 0.5%.

A single asterisk (\*) on the reading, mathematics, and science reports indicates that no data are reported because fewer than ten students were tested or if any percentage equals 100.

A double asterisk (\*\*) on the writing reports indicates that no data are reported because fewer than ten students were tested or all students are receiving the same score.



# Certificates of Achievement

The *Certificate of Achievement* is awarded **only** to students who demonstrate outstanding or notable performance on the *Sunshine State Standards* Reading, Mathematics, Science, and/or Writing+ tests. Students taking the FCAT Retake tests are not eligible to receive *Certificates of Achievement*. If a student is being recognized for more than one subject, the student will receive one certificate listing his/her achievement in all subjects. Certificates are not awarded based on the FCAT NRT scores.

Students may earn a *Certificate of Achievement* for “Outstanding Performance” in FCAT SSS Reading, Mathematics, Science, and/or Writing+. In order to earn recognition for “Outstanding Performance,” students must earn an achievement level score of 5 on the Reading SSS or Mathematics SSS tests, a scale score of 400 or above on the Science SSS test, or a final score of 6.0 on FCAT Writing+. Additionally, students may earn a *Certificate of Achievement* for “Notable Performance” in FCAT Writing+. To earn recognition for “Notable Performance,” Grade 4 students must receive a final score of either 5.0 or 5.5 on the essay portion of FCAT Writing+. Grade 8 and 10 students must receive a final score of 5.5.

## SSS Grade 10 Pass/Fail Student Label

To the right is a sample of the *Grade 10 Pass/Fail Student Label*. This label is provided for all Grades 10-13 and Adult students taking the Grade 10 Reading SSS and/or Mathematics SSS tests, and the Grade 10 retake tests.

The label displays the student’s scale score (SS) and developmental scale score (DSS) in each subject tested, and whether the student passed or failed the test.

FLORIDA COMPREHENSIVE ASSESSMENT TEST (FCAT) SPRING 2005 SUNSHINE STATE STANDARDS	
STUDENT: CASEY, CORY	GRADE: 10
DISTRICT: 99 SUNSHINE	SID: 112883427X
SCHOOL: 9999 SUNSHINE HIGH	DOB: 02/24/88
READING SS: 430 PASSED	MATH SS: 381 PASSED
READING DSS: 2646	MATH DSS: 2218

## Sunshine State Standards Reading and Mathematics Retake Tests Student Report

The *Sunshine State Standards Reading and Mathematics Retake Tests Student Report* provides results for Grades 10–13 and Adult students who took the Reading and/or Mathematics *Sunshine State Standards* Retake Tests. Reading results are printed on the top half of the report and Mathematics results are printed on the bottom half of the report.

The student, school, and district are identified in the upper right corner of the report. The area labeled **Your Reading (or Mathematics) Results** displays a statement based on the student’s achievement level for 2005, which indicates to the student whether he or she earned a passing score.

The “Points Earned” column in the table labeled **Your Reading (or Mathematics) Content Scores** provides the actual number of points earned in each of the content subcategories (clusters or strands). The “Points Possible” column within the table provides the total number of points possible per subcategory. The **Reading (or Mathematics) Content Scores** are described directly below this table. The subcategories are listed, along with a description of the content assessed within that subcategory. Pages 30–32 of this booklet describe the content assessed on the Reading and Mathematics SSS portions of the FCAT.

The right side of the report displays an area labeled **Your Reading (or Mathematics) FCAT Score**. This area provides the student’s FCAT Score (Developmental Scale Score), achievement level, and indicates whether or not the student earned a passing score. If the student did not test for a subject, “NT” (Not Tested) will appear in place of the FCAT Score and achievement level. The graph depicts the student’s score (bar on the left) and the passing score (bar on the right). The footnote below the graph describes the range within which a student’s FCAT Score would likely fall if the student took the test again without additional instruction. Students who received additional instruction would likely improve their scores.



# Sunshine State Standards Reading and Mathematics Student and Parent Report

The *Sunshine State Standards Reading and Mathematics Student and Parent Report* is a four-page color folder. The first page includes a letter to parents and guardians. The fourth page provides general information about the FCAT program and definitions of key FCAT terms. The information on both of these pages is translated into Spanish and Haitian Creole.

Pages 2 and 3 provide the student's 2005 FCAT SSS results. Page 2 displays the Reading results and page 3 displays the Mathematics results. The description of the information provided on the sample Reading report on this page applies to the Mathematics report as well.

- A** The student, school, and district are identified in this area.
- B** In the area labeled **Your 2005 Reading (or Mathematics) Results** a statement provides information based on the student's achievement level for 2005. For students taking the Grade 10 test, the comment also indicates whether they earned a passing score. This area may direct students to contact their teachers for guidance on improving achievement. This comment is translated into Spanish and Haitian Creole.
- C** The table labeled **Your Reading (or Mathematics) FCAT Score History** provides the FCAT Score (Developmental Scale Score), achievement level, and grade tested for 2005, and, if available, for 2001, 2002, 2003, and 2004. The shaded bars on the graph display the student's current FCAT Score as well as the FCAT Scores for the previous four years, if those scores were available. The white bars on the graph provide the on-grade level expectations. The FCAT Score is used to determine a student's annual progress from grade to grade. Developmental scores range from 86 to 3008. FCAT Scores are equated to the base year so scores from year to year can be compared. For example, for Grade 10 Reading and Mathematics, the base year is 1998. Equating means that even though a grade-level test may contain different questions each year, students who perform at the same skill level in different years will earn the same FCAT score. The footnote below the score history table describes the range within which a student's FCAT Score would likely fall if the student took the test again without additional instruction. Students who received additional instruction would likely improve their scores.
- D** In the table labeled **Your 2005 Reading (or Mathematics) Content Scores** the "Points Possible" column provides the total number of points possible for each of the content subcategories (clusters or strands) and the "Points Earned" shows the actual number of points earned in each of the content subcategories. The state comparison in thirds is also provided. A checkmark will indicate whether the student's points earned fell in the lowest third, middle third, or highest third of scores across the state for each content subcategory.
- E** This area of the report provides a **Chart of FCAT Reading (or Mathematics) Achievement Levels and FCAT Scores** for each grade level. The achievement level that represents the on-grade level FCAT Score expectations is shaded. A description of the information contained in this chart is provided to the left of the chart in Spanish and Haitian Creole.
- F** In this section, the **Reading (or Mathematics) Content** subcategories are listed, along with a description of the content assessed within that subcategory. Spanish and Haitian Creole translations of this information are also provided. The titles of the content subcategories are the same across all grade levels; however, the actual content varies by grade level based on the benchmarks at each grade. Pages 30–32 of this booklet describe the content assessed on the Reading and Mathematics SSS portions of the FCAT.

Spring 2005  
Florida Comprehensive Assessment Test (FCAT)  
SSS Reading Student and Parent Report  
Grade 10

NAME: CORY W. CASEY  
ID: 112883427X  
SCHOOL: 9999-SUNSHINE HIGH SCHOOL  
DISTRICT: 99-SUNSHINE

**Your 2005 Reading Results**

You have passed the Grade 10 FCAT Reading test and your score is on grade level. You answered many of the questions on FCAT correctly.

**Aprobaste el examen de Lectura del FCAT para el grado 10 y tu calificación está al nivel. Respondiste a muchas de las preguntas del FCAT correctamente.**

**Ou pase egzamen Lekti FCAT yo bay Klas 10yem nan epi ou fe yon not ki nan nivo klas la. Ou reponn anpil nan keyyon FCAT yo san fot.**

Year	2001	2002	2003	2004	2005
Grade Tested	6	7	8	9	10
Achievement Level	2	2	3	3	3
FCAT Score*	1619	1675	1973	2037	2089

\*These scores show your achievement on the day you were tested. If you were to take this same test again, it is likely that your 2005 FCAT Reading score would be between 2008 and 2170.

**Your 2005 Reading Content Scores**

Content Areas	Points Earned	Points Possible	Compared to other students
Words/Phrases	6	7	✓
Main Idea/Purpose	14	20	✓
Comparisons	8	10	✓
Reference/Research	9	14	✓

L=Low, M=Middle, H=High

■ Your Score ■ On Grade Level

(Achievement levels 3 and above are considered on or above grade level.)

**Chart of FCAT Achievement Levels and FCAT Scores**

Grade	Reading				
	Level 1	Level 2	Level 3	Level 4	Level 5
3	86-1045	1046-1197	1198-1488	1489-1959	1960-2614
4	205-314	315-455	456-689	690-1064	1065-2008
5	474-1341	1342-1509	1510-1791	1792-2008	2009-2713
6	639-1449	1450-1621	1622-1899	1900-2125	2126-2778
7	871-1541	1542-1714	1715-1944	1945-2180	2181-2787
8	886-1695	1696-1881	1882-2072	2073-2281	2282-2790
9	772-1771	1772-1971	1972-2145	2146-2297	2298-2943
10	844-1851	1852-2087	2088-2218	2219-2310	2311-3008

On grade level


**Reading Content**—Content scores give more specific information about the skills on the FCAT. Grade level expectations for students include:  
**Words/Phrases**—uses skills to determine word meaning, including word parts and relationships between words.  
**Main Idea/Purpose**—determines a stated or implied essential message, details, author's purpose, or plot.  
**Comparisons**—knows similar and different, cause and effect, and contrast.  
**Reference/Research**—uses information from a variety of sources to reach conclusions.

**Calificaciones de contenido de lectura**  
Las calificaciones de contenido proporcionan información más específica sobre las habilidades en el FCAT. Las expectativas al nivel del grado para los estudiantes incluyen:  
**Palabras/Frases**—usa la habilidad para determinar el significado de una palabra, incluyendo las partes de palabras y las relaciones entre palabras.  
**Idea principal/Propósito**—determina un mensaje esencial expresado o implícito, detalles del propósito del autor o el argumento.  
**Comparaciones**—conoce similar y diferente, causa y efecto y contraste.  
**Referencia/Investigación**—usa la información de una variedad de fuentes para llegar a conclusiones.

**Nèt Kontni pou Lekti**  
Nèt pou kontni yo bay enfòmasyon ki pi egzak sou konpetans elèv la nan FCAT a. Men sa yo atann de elèv la depi nivo klas la:  
**MotFraz**—ilize aktifite pou detèminen syllabasyon mo yo, sa vle di chak pati nan mo yo epi rilasyon ki genyen ant mo yo.  
**Ide Prensipal/Objektif**—detèminen von mesaj esansyèl ki deklare oswa akte, bay detay sou objektif oswa plan de a.  
**Komparasyon**—konnen menm ak diferan,koz ak ete, epi kontras.  
**Referans/Rechch**—ilize enfòmasyon ki soti nan plizyè sous pou dedal konklizyon.

NT=Not Tested, NR=Not Reported, NF=Not Found

# Sunshine State Standards Science Student and Parent Report



**Spring 2005**  
**Florida Comprehensive Assessment Test (FCAT)**  
**SSS Science Student and Parent Report**  
**Grade 11**

NAME: CORY W. CASEY  
ID: 112883427X  
SCHOOL: 9999 - SUNSHINE HIGH  
DISTRICT: 99 - SUNSHINE

The Florida Department of Education believes that every student has the ability to learn and succeed. The purpose of the FCAT is to ensure that Florida's public schools are providing the best education possible and preparing students to succeed for the future.

A high level of science knowledge has been identified as critical for success in the competitive 21st century job market. Working with Florida educators, the state has developed a test to measure a student's achievement of the important science skills in the Sunshine State Standards. This report provides your student's 2005 Science Score which allows you to compare your student's performance to the performance of other students in the state. In addition, the content scores help you to identify academic skills that may need improvement.

El Florida Department of Education (Departamento de Educación del estado de Florida) cree que todos los estudiantes tienen la capacidad de aprender y tener éxito. El propósito del FCAT es asegurar que las escuelas públicas de Florida proporcionen la mejor educación posible y preparen a los estudiantes para tener éxito en el futuro.

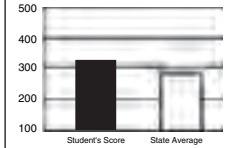
Se ha demostrado que, para el éxito en el competitivo mercado laboral del siglo XXI, es crucial poseer un alto nivel de conocimientos de ciencias. Trabajando con educadores de Florida, el estado ha desarrollado un examen para medir los logros de un estudiante en materia de ciencias de acuerdo a las normas Sunshine State Standards. Este informe proporciona a su estudiante la calificación de ciencias de 2005, lo que le permite comparar el rendimiento de su estudiante con la de otros estudiantes en el estado. Adicionalmente, las calificaciones de contenido le ayudan a identificar las habilidades académicas en las que puede ser necesario mejorar.

Depatman Edikasyon nan Florida kwè chak limoun gen kapasite pou aprann epi gen sikse. Objektif FCAT la se pou yo ka sèten lekòl piblik nan Florida ap bay pi bon edikasyon ki posib la epi yo prepare elèv yo pou yo ka gen sikse nan lavni.

Yo identifye yon nivo konesans ki elve nan syans se yon bagay ki esansyèl pou yon moun ka gen sikse nan konpetityon ki genyen nan mache travay la nan 21yèm syèk la. Eta Florida a travay ansanm ak pwofesè yo pou yo devlope yon egzamen ki pèmèt yo mezire ranman yon elèv nan egzamen syans ki enpòtan nan Sunshine State Standards la. Rapò sa a bay Nòl elèv fè nan Syans pou Anè 2005 la epi sa pèmèt ou konpare sèfòmans elèv ou yo ak pèfòmans lòt elèv nan Eta a. Anplis, nòt yo ki nan rapò a ede ou identifye nan ki matyè akademik elèv la bezwen fè amelyorasyon.

**Your 2005 FCAT Science Score**

Score *	Compared to Other Students		
	Low	Middle	High
315		✓	



\*This score shows your achievement on the day you were tested. If you were to take this test again, it is likely that your 2005 FCAT Science score would be between 299 and 331.

**Your 2005 Science Content Scores**

Content Areas	Points Earned	Points Possible	Compared to Other Students		
			Low	Middle	High
Physical and Chemical	5	14		✓	
Earth and Space	8	11			✓
Life and Environmental	9	14		✓	
Scientific Thinking	7	12			✓

Science Content	Contenido de ciencias	Kisa ki gen nan egzamen syans lan
<ul style="list-style-type: none"> <li>■ <b>Physical and Chemical Science</b>- explains matter, motion, force, and energy including their properties and interactions; also identifies atoms, elements, compounds, and mixtures.</li> <li>■ <b>Earth and Space Science</b>- explains Earth's changes over time including geologic patterns, the rock cycle, minerals and weather systems; also describes the solar system and universe.</li> <li>■ <b>Life and Environmental Science</b>- identifies and explains plants, animals, and the environment, including life processes, conservation of resources, and the interdependence of organisms and systems.</li> <li>■ <b>Scientific Thinking</b>- applies scientific processes to problem solving, recognizes patterns and systems, and understands the impact of technology on society.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Ciencias físicas y químicas</b>-explican la materia, el movimiento, la fuerza y la energía, incluyendo sus propiedades e interacciones; también identifican los átomos, elementos, compuestos y mezclas.</li> <li>■ <b>Ciencias de la Tierra y el espacio</b>-explican los cambios de la Tierra a través del tiempo, incluyendo los patrones geológicos, el ciclo de las rocas, minerales y sistemas meteorológicos; también describen el sistema solar y el universo.</li> <li>■ <b>Ciencias de la vida y el medio ambiente</b>- identifican y explican las plantas, animales y el medio ambiente, incluyendo los procesos vitales, la conservación de recursos y la interdependencia de organismos y sistemas.</li> <li>■ <b>Pensamiento científico</b>- aplica procesos científicos a la resolución de problemas, reconoce patrones y sistemas, y comprende el impacto de la tecnología en la sociedad.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Syans fizik ak chimik</b>- espikhe matyè, mouvman, fòs, ak enèji, sa vle di pwopriyete yo ak fason youn reyaji ak lòt; epi tou idantifye atòm, eleman, konpoze chimik ak melanj.</li> <li>■ <b>Syans latè ak espas</b>- espikhe chanjman ki fèt sou Latè ane apre ane, sa vle di aktivite jwewojik, faz wòch, sistèm mineral ak sistèm lameteyo a, epi li deklè sistèm solè a ak invè a.</li> <li>■ <b>Syans biyolojik ak anvivnonnan</b>- idantifye epi espikhe plant, bèt, ak anvivnonnan an, sa vle di pwosesis biyolojik, konsèvasyon resous yo, ak entèdepandans oganis ak sistèm yo.</li> <li>■ <b>Rezonman syantifik</b>- itilize pwosede syantifik pou rezoud pwoblèm, rekonèt regilarite ak sistèm, epi konprann enpak teknoloji sou lasosyete.</li> </ul>

- A** The student, school, and district are identified in this area.
- B** The **2005 Science Content Scores** appear in this area. The “Points Possible” provides the total number of points possible for each of the four content subcategories (clusters), while the “Points Earned” shows the number of points earned by the student for each subcategory. The state comparison in thirds is provided. A checkmark indicates whether the student’s points earned fell in the lowest third, middle third, or highest third of scores across the state for each content subcategory.
- C** The **2005 FCAT Science Score** appears in this area. The state comparison in thirds (for all content subcategories combined) is printed here. A checkmark indicates whether the student’s scale score fell in the lowest third, middle third, or highest third of scores across the state. The shaded bar on the graph displays the student’s current score and the white bar on the graph provides the state average. The footnote below the graph describes the range in which a student’s FCAT Science Score would likely fall if the student took the test again without additional instruction. Students who receive additional instruction would likely improve their scores.
- D** The **Science Content** is described in this section. The titles of the content subcategories are the same across Grades 5, 8, and 11; however, the actual content varies by grade level based on the benchmarks at each grade. Each of the four content subcategories is listed, along with a description of the content assessed within that subcategory. Spanish and Haitian Creole translations of this information are provided. The content assessed on the Science SSS test is described on pages 33 and 34 of this booklet.

# Writing Student Report



Spring 2005  
Florida Comprehensive Assessment Test (FCAT)  
Writing  
Grade 10 Student Report  
Writing to Explain

Student Name: CASEY, CORY W.  
Student No.: 112883427X  
School: 9999-SUNSHINE HIGH SCHOOL  
District: 99 - SUNSHINE

A

B

SCORE: 4.5

C

## How Papers Are Scored

The student responses are scored by trained readers using the holistic method to evaluate a piece of writing for its overall quality. The readers consider four elements: focus, organization, support, and conventions. In this type of scoring, readers make a judgment about the entire response and do not focus on any one aspect of the writing.

**Focus** refers to how clearly the paper presents and maintains a clear main idea, theme, or unifying point. Papers representing the higher end of the point scale demonstrate a consistent awareness of the topic and do not contain extraneous information.

**Organization** refers to the structure or plan of development (beginning, middle, and end) and whether the points are logically related to one another. Organization also refers to (1) the use of transitional devices to relate the supporting ideas to the main idea, theme, or unifying point and (2) the evidence of a connection between sentences. Papers representing the higher end of the point scale use transitions to signal the plan or text structure and end with summary or concluding statements.

**Support** refers to the quality of the details used to explain, clarify, or define. The quality of the support depends on word choice, specificity, depth, and thoroughness. Papers representing the higher end of the point scale provide examples and illustrations in which the relationship between the supporting ideas and the topic is clear.

**Conventions** refers to punctuation, capitalization, spelling, and variation in sentence structure used in the paper. The conventions are basic writing skills included in Florida's Sunshine State Standards. Papers representing the higher end of the point scale follow, with few exceptions, the conventions of punctuation, capitalization, and spelling and use a variety of sentence structures to present ideas.

D

Dear Student:

The paper you wrote in February as part of the FCAT has been read independently by two people trained to score this test. Each reader judged the paper against standards set by Florida educators and gave it an overall score. Your score is the average of the two readers' scores.

This writing score will help you, your parents or guardians, and your teachers understand how well you performed on this statewide writing test. A description of how papers are scored is printed on the left side of this report. A description of each possible score is printed on the back of this report.

Remember, you were given 45 minutes to read the assigned topic, plan what to write, and then write your response. The conditions under which you write papers in class or at home may not be the same as those for this test; therefore, the writing may not be the same. You and your teachers should consider the score on this test along with all of your other writing when planning activities to continue developing your writing skills.


DESCRIPTION OF THE TOPIC:  
Students were asked to choose a personal quality they think is important and explain why this personal quality is important.

- A The student, school, and district are identified in this area. This area also indicates the type of writing assignment given to the student. Grade 4: Writing to Explain (Expository) or Writing to Tell a Story (Narrative). Grades 8 and 10: Writing to Explain (Expository) or Writing to Convince (Persuasive).
- B The student's score is printed in this box. The highest score is a 6. Student essays are scored using a holistic scoring rubric. Two trained scorers independently score each essay. The score reported is the average of both scorers' scores.
- C Four elements of writing (focus, organization, support, and conventions) are evaluated using the holistic rubric. The rubric for each grade level is found on the back of the student report and is included on page 22 of this booklet. The SSS content assessed by FCAT Writing is described on page 35 of this booklet.
- D This section of the report is addressed to either the Grade 8 or 10 student or to the parents or guardians of Grade 4 students. The text provides a reminder of how the final score was determined, how the essay was scored, the circumstances under which the essay was written, and how the score should be interpreted. The box at the bottom of Section D describes the topic to which the student was asked to respond.

The FCAT Writing Holistic Scoring Rubrics (example on page 22), appears on the back of the FCAT Writing reports. A separate sheet is distributed to districts which includes the Spanish translation of the FCAT Writing Holistic Scoring Rubrics on one side and the Haitian Creole translation on the other.

For more information about FCAT Writing, see *Florida Writes! Report on the 2005 FCAT Writing+ Assessment* (individual booklets for Grade 4, Grade 8, and Grade 10).


# Norm-Referenced Test Student Report




**FCAT**  
Florida Comprehensive Assessment Test

Spring 2005  
**Florida Comprehensive Assessment Test (FCAT)**  
**NORM-REFERENCED TEST**  
**Grade 10 Student Report**

NAME: Jean R. Roland  
ID: 163856789X  
SCHOOL: 9999 - Sunshine High School  
DISTRICT: 99 - Sunshine




The FCAT Norm-Referenced Test (NRT) measures your achievement on a test that was given to a national sample of students. Your norm-referenced scores in Reading Comprehension and Mathematics Problem Solving describe your performance in relation to the performance of students throughout the nation where a Percentile Rank score of 50 is average. Test scores offer only one account of how a student is doing in school and many factors can affect a student's test scores. Other tests, such as the Sunshine State Standards FCAT, show how successful the student is on the challenging content of Florida's Sunshine State Standards. The staff at the student's school will have more detailed information about his or her academic performance.



SUBJECT SCORES	National Percentile Rank	Stanine	National Percentile Bands
Reading Comprehension	38	4	1 10 30 50 70 90 99
Mathematics	26	4	1 10 30 50 70 90 99

**SUBJECT SCORES** show the student's NRT performance in several different ways for each subject area tested. **National Percentile Rank (NPR)** ranges from 1 to 99. For example, an NPR of 70 means this student obtained a score equal to or higher than 70 percent of the students in the national sample. Stanine scores range from 1 to 9. A stanine in the range of 4-6 is considered average; a stanine of 1, 2, or 3 is below average; and a stanine of 7, 8, or 9 is above average. **National Percentile Bands** show scores that are approximate indicators of achievement. If the student took the test again, his or her score would probably fall within the number range shown. By comparing the bands, you can compare reading and mathematics performance.

CONTENT SCORES	Number of Questions on Test	Number of Correct Responses	National Mean of Correct Responses
<b>Reading Comprehension</b>	54	38	33
Literary	18	13	12
Informational	18	13	9
Functional	18	12	12
Initial Understanding	12	9	7
Interpretation	20	14	11
Critical Analysis	12	8	6
Strategies	10	7	6
<b>Mathematics</b>	48	31	17
Number Sense and Operations	20	13	4
Patterns, Relationships, and Algebra	10	6	5
Data, Statistics, and Probability	8	7	3
Geometry and Measurement	10	5	5



**CONTENT SCORES AND CONTENT AREA DESCRIPTIONS**

**CONTENT SCORES** should not be compared year to year because the content subcategories vary slightly from grade to grade. The **National Mean of Correct Responses** is the average number of correct responses for students in the national sample.

The **Reading Comprehension** test is composed of reading selections and questions about each selection. Approximately one-third of the reading selections fall into each of the following types of reading material:

- Literary** – Material typically read for enjoyment or literary merit, including folk tales, historical and contemporary fiction, humor, and poetry
- Informational** – Material typically found in textbooks and other sources of information, including content from the natural, physical, and social sciences
- Functional** – Material typically encountered in everyday life, such as directions, forms, labels, and advertisements

Test questions are also classified by the following standards:

- Initial Understanding** – Comprehend explicitly stated details or relationships
- Interpretation** – Interpret reading selections based on implicit information in the selections and discern ideas that go beyond the text
- Critical Analysis** – Synthesize and evaluate explicit and implicit information
- Strategies** – Recognize and describe strategies used by the author or apply appropriate reader strategies

The **Mathematics** test requires students to use logical reasoning and non-routine problem-solving strategies. Each question is reported according to its mathematics content subcategory.

- Number Sense and Operations** – Understand the meaning and use of numbers, the various representations of numbers, number systems, and the relationships between and among numbers; demonstrate understanding of the meaning of operations, the relationship between operations, and the practical settings in which a specific operation or set of operations is appropriate
- Patterns, Relationships, and Algebra** – Describe, complete, continue, and demonstrate understanding of patterns involving numbers, symbols, and geometric figures; demonstrate understanding of elementary algebraic principles as found in the relationships between mathematical situations and algebraic symbolism
- Data, Statistics, and Probability** – Describe, interpret, and make predictions based on the analysis of data presented in a variety of ways; demonstrate understanding of basic probability concepts
- Geometry and Measurement** – Understand the characteristics and properties of plane and solid figures, coordinate geometry, and spatial reasoning; understand the meaning and use of various measurement systems, the tools of measurement, and the integral role of estimation in measurement

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PROCESS NO. 90000000-00SR9NL-0000-02020-5

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**A** The student, school, and district are identified in this area.


**B** This area shows the student's norm-referenced test (NRT) scores in several different ways for each subject area tested. The **National Percentile Rank (NPR)** score indicates the percent of all students in the national sample who scored equal to or below the student's score. **Stanine** scores divide the distribution of scores into nine equal parts and are not as variable as percentile ranks. Stanines in the range of 4–6 are considered average scores. The **National Percentile Bands** show scores that are approximate indicators of achievement. If the student took the test again, his or her score would probably fall within the number range shown. By comparing the bands, you can determine whether the student did better in some subjects than in others.

**C** The **Content Scores** shown in this area are the actual number of points a student earned. The “Number of Correct Responses” can be compared to the “Number of Questions on Test” to determine a student's success in each area. These scores should not be compared year to year, because the content subcategories vary slightly from grade to grade. The “National Mean of Correct Responses” is the average number of correct responses in relation to the performance of students throughout the nation. Page 36 of this booklet describes the content assessed on the NRT portion of the FCAT.

10

Understanding FCAT Reports 2005 © 2005 Florida Department of Education

# Performance Task Student Report



**Spring 2005**  
**Florida Comprehensive Assessment Test (FCAT)**  
**SUNSHINE STATE STANDARDS**  
**Reading Performance Task Student Report**  
**Grade 10**

This report provides your results on the FCAT 2005 Reading performance tasks. Each performance task on FCAT requires you to respond with either a short response or a longer, more detailed response. Short-response tasks are scored on a 2-point rubric and extended-response tasks are scored on a 4-point rubric.

One of the short-response tasks is shown below with a copy of your answer. The number of points you earned for your answer is shown in the box to the right.

This task required you to read an informational passage and then answer how sediment samples help scientists to draw conclusions about climatic changes.

**B** How do sediment samples help scientists to draw conclusions about climatic changes, such as global warming? Use details and information from the article to explain your answer.

**A** FCAT 2005  
READING PERFORMANCE TASKS

Student Name CORY W. CASEY  
 Student Number 112883426X  
 School Name SUNSHINE HIGH SCHOOL  
 School Number 9999  
 District Name SUNSHINE  
 District Number 99

	This Performance Task Response	All Reading Performance Task Responses
Points Possible	2	10
Points Earned	2	8

**D**

[An image of the student's response will appear on the lower half of the report.]

Separate FCAT performance task reports are provided for reading, mathematics, and science, as appropriate, by grade level. This booklet contains a sample of the *Reading Sunshine State Standards Performance Task Student Report*. The *Mathematics Sunshine State Standards Performance Task Student Report* and the *Science Sunshine State Standards Performance Task Student Report* are organized in an identical manner.

- A** The student, school, and district are identified in this area.
- B** Section B of the report describes the types of tasks included on the test and also describes one of the tasks to which the student responded. For Reading, Section B provides a summary of the passage the student read and of the exact wording of the question. For Mathematics, an image of the question is provided. For Science, the exact wording of the question is provided.
- C** Section C includes the student's scores on the performance tasks. The second column shows the number of points earned and the number of points possible for the response shown in the lower section of the report (Section D). The third column shows the total points earned and the total points possible on all of the performance tasks included in the test. The total "Points Earned" by a student can be compared to the "Points Possible" to determine the amount of success a student has demonstrated on the performance tasks.
- D** The bottom half of this report displays a copy of the student's actual response to this question. Student answer documents are scanned using imaging technology so that the responses can be scored and this report can be prepared. On rare occasions, student responses are transcribed so they can be scanned and converted to images. Therefore, if the writing doesn't appear to be that of the student, it is likely that it has been transcribed. Correct answers to the performance tasks displayed on the student reports and the holistic rubrics used to evaluate student work are found on pages 12–13 (Reading), pages 14–17 (Mathematics), and pages 18–21 (Science).



# FCAT Reading Performance Tasks and Examples of Top-Score Responses

For additional information about the following FCAT Reading performance tasks, see *Florida Reads! Report on the 2005 FCAT Reading Released Items*.

## Grade 4 Reading Short-Response Task

### Task

READ  
THINK  
EXPLAIN

Why is the cottontail rabbit difficult to see? Use information and details from the poem AND the picture to support your answer.

### Example of a Top-Score Response for This Task

The cottontail rabbit is hard to see because it blends into (is camouflaged in) the bushes, blooms, and thorns. It is also hard to see because it sits still (motionless) like a statue and does not blink. The picture shows how the rabbit blends into its surroundings.

## Grade 8 Reading Short-Response Task

### Task

READ  
THINK  
EXPLAIN

What was the weather like on the Outer Banks of North Carolina the night of October 11, 1896, and why did it make a rescue difficult? Include details from the article to support your answer.

### Example of a Top-Score Response for This Task

During the night, a hurricane struck, causing treacherous surf and wind conditions. The weather ripped sails from the masts and blew freezing waves on to the decks of the *E.S. Newman*. Ocean spray covered the lookout tower window of the rescue station and made it difficult to see the *Newman's* distress signal. Surfboats and rescue equipment were useless, so the rescue team “fought their way” through the sinking sand and surf.

## Grade 10 Reading Short-Response Task

### Task

READ  
THINK  
EXPLAIN

How do sediment samples help scientists to draw conclusions about climatic changes, such as global warming? Use details and information from the article to explain your answer.

### Example of a Top-Score Response for This Task

Scientists analyze the contents of core samples to study climatic conditions. For example, when scientists found a shell bed in Antarctica full of mollusks, clams, and snails, like those beds found in warmer climates, scientists concluded that the waters around Antarctica had grown warm very fast for a brief period before turning cold again.



# FCAT Reading Holistic Rubrics

## Short-Response Tasks

- 2 Points:** The response indicates that the student has a complete understanding of the reading concept embodied in the task. The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. Necessary support and/or examples are included, and the information given is clearly text-based.
- 1 Point:** The response indicates that the student has a partial understanding of the reading concept embodied in the task. The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. Some of the support and/or examples may be incomplete or omitted.
- 0 Points:** The response indicates that the student does not demonstrate an understanding of the reading concept embodied in the task. The student has provided a response that is inaccurate; the response has an insufficient amount of information to determine the student's understanding of the task; or the student has failed to respond to the task.

## Extended-Response Tasks

- 4 Points:** The response indicates that the student has a thorough understanding of the reading concept embodied in the task. The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. Necessary support and/or examples are included, and the information given is clearly text-based.
- 3 Points:** The response indicates that the student has an understanding of the reading concept embodied in the task. The student has provided a response that is accurate and fulfills all the requirements of the task, but the required support and/or details are not complete or clearly text-based.
- 2 Points:** The response indicates that the student has a partial understanding of the reading concept embodied in the task. The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. Some of the support and/or examples and requirements of the task may be incomplete or omitted.
- 1 Point:** The response indicates that the student has very limited understanding of the reading concept embodied in the task. The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.
- 0 Points:** The response indicates that the student does not demonstrate an understanding of the reading concept embodied in the task. The student has provided a response that is inaccurate; the response has an insufficient amount of information to determine the student's understanding of the task; or the student has failed to respond to the task.

# FCAT Mathematics Performance Tasks and Examples of Top-Score Responses

For additional information about the following FCAT Mathematics performance tasks, see *Florida Solves! Report on the 2005 FCAT Mathematics Released Items*.

## Grade 5 Mathematics Short-Response Task

### Task with an Example of a Top-Score Response for This Task

THINK  
SOLVE  
EXPLAIN

The Sweete Shop had a chart posted on the wall for the candy packers. The chart showed the number of caramel and nut candies to be packed in different kinds of gift boxes.

PACKING CHART

Box	Caramel Candy	Nut Candy
A	18	10
B	24	13
C	30	16
D	36	19
E	42	22

**Part A** Fill in the number of nut candies required for Boxes D and E.

**Part B** On the lines below, explain the relationship between the number of caramel candies and the number of nut candies. In your explanation, be sure to include how the number of nut candies changes as the number of caramel candies changes.

As the number of caramel candies increases by six, the number of nut candies  
increases by 3.

OR

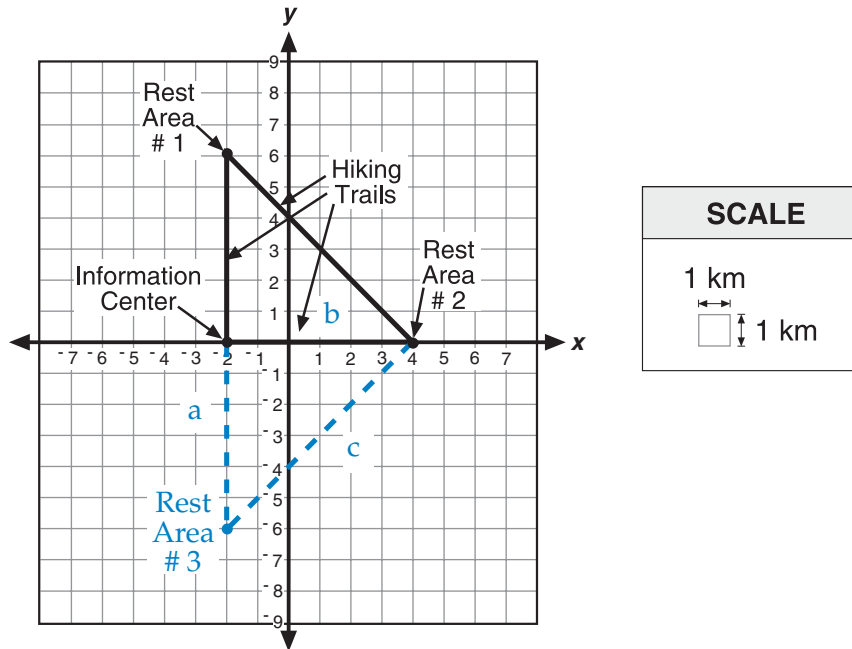
Take half of the number of caramel candies and add one to find the number of  
nut candies.

# Grade 8 Mathematics Short-Response Task

## Task with an Example of a Top-Score Response for This Task

THINK  
SOLVE  
EXPLAIN

In its first design for a new park, the Park Service planned to build two rest areas. Each of the rest areas would be 6 kilometers from the Information Center, with Rest Area #1 due north and Rest Area #2 due east of the Center. The three locations would be connected by straight hiking trails, as shown in the diagram.



**Part A** The final plan added Rest Area #3 to the design shown above, with straight hiking trails between all three rest areas and the Information Center. The point used to locate Rest Area #3 was the reflection over the  $x$ -axis of the point that locates Rest Area #1. What should be the coordinates of Rest Area #3?

Coordinates of Rest Area #3           (-2,-6)          

**Part B** To the nearest tenth kilometer, calculate the length of the shortest hiking trail from Rest Area #2 to Rest Area #3.

$$\begin{aligned}
 a^2 + b^2 &= c^2 & 36 + 36 &= c^2 \\
 (6)^2 + (6)^2 &= c^2 & 72 &= c^2 \\
 & & \sqrt{72} &= c \\
 & & c &\approx 8.4852813
 \end{aligned}$$

Length of trail           8.5 km

## Grade 10 Mathematics Short-Response Task

### Task with an Example of a Top-Score Response for This Task

THINK  
SOLVE  
EXPLAIN

A city is planning to replace one of its water storage tanks with a larger one. The city's old tank is a right circular cylinder with a radius of 12 feet and a volume of 10,000 cubic feet. The new tank is a right circular cylinder with a radius of 15 feet and the same height as the old tank.

How many cubic feet of water will the new storage tank hold? Show your work or explain in words how to determine the answer.

*Explanation or work equivalent to the following:*

$$V = \pi r^2 h \text{ [old tank]}$$

$$10,000 = \pi(12)^2 h$$

$$\frac{10,000}{144\pi} = \frac{\pi(144)h}{144\pi}$$

$$\frac{625}{9\pi} = h$$

$$V = \pi r^2 h \text{ [new tank]}$$

$$V = \pi(15)^2 \left(\frac{625}{9\pi}\right)$$

$$V = \pi(225) \left(\frac{625}{9\pi}\right)$$

$$V = 25(625)$$

$$V = 15,625$$

Volume of new tank 15,625 cubic feet

*OR an answer in the range of  
15,543-15,630.5 cubic feet*

# FCAT Mathematics Holistic Rubrics

## Short-Response Tasks

- 2 Points:** A score of two indicates that the student has demonstrated a thorough understanding of the mathematics concepts and/or procedures embodied in the task. The student has completed the task correctly, in a mathematically sound manner. When required, a student's explanations and/or interpretations are clear and complete. The response may contain minor flaws that do not detract from the demonstration of a thorough understanding.
- 1 Point:** A score of one indicates that the student has provided a response that is only partially correct. For example, the student may provide a correct solution, but may demonstrate some misunderstanding of the underlying mathematical concepts or procedures. Conversely, a student may provide a computationally incorrect solution but could have applied appropriate and mathematically sound procedure, or the student's explanation could indicate an understanding of the task, despite the error.
- 0 Points:** A score of zero indicates that the student has provided no response at all, or a completely incorrect or uninterpretable response, or demonstrated insufficient understanding of the mathematics concepts and/or procedures embodied in the task. For example, a student may provide some work that is mathematically correct, but the work does not demonstrate even a rudimentary understanding of the primary focus of the task.

## Extended-Response Tasks

- 4 Points:** A score of four is a response in which the student demonstrates a thorough understanding of the mathematics concepts and/or procedures embodied in the task. The student has responded correctly to the task, used mathematically sound procedures, and provided clear and complete explanations and interpretations. The response may contain minor flaws that do not detract from the demonstration of a thorough understanding.
- 3 Points:** A score of three is a response in which the student demonstrates an understanding of the mathematics concepts and/or procedures embodied in the task. The student's response to the task is essentially correct with the mathematical procedure used and the explanations and interpretations provided demonstrate an essential, but less than thorough, understanding. The response may contain minor flaws that reflect inattentive execution of mathematical procedures or indications of some misunderstanding of the underlying mathematics concepts and/or procedures.
- 2 Points:** A score of two indicates that the student has demonstrated only a partial understanding of the mathematics concepts and/or procedures embodied in the task. Although the student may have used the correct approach to obtaining a solution or may have provided a correct solution, the student's work lacks the essential understanding of the underlying mathematical concept. The response contains errors related to misunderstanding important aspects of the task, misuse of mathematical procedures, or faulty interpretations of results.
- 1 Point:** A score of one indicates that the student has demonstrated a very limited understanding of the mathematics concepts and/or procedures embodied in the task. The student's response is incomplete and exhibits many flaws. Although the student's response has addressed some of the conditions of the task, the student reached an inadequate conclusion and/or provided reasoning that was faulty or incomplete. The response exhibits many flaws or may be incomplete.
- 0 Points:** A score of zero indicates that the student has provided no response at all, or a completely incorrect or uninterpretable response, or demonstrated insufficient understanding of the mathematics concepts and/or procedures embodied in the task. For example, a student may provide some work that is mathematically correct, but the work does not demonstrate even a rudimentary understanding of the primary focus of the task.

# FCAT Science Performance Tasks and Examples of Top-Score Responses

For additional information about the following FCAT Science performance tasks, see *Florida Inquires! Report on the 2005 FCAT Science Released Items*.

## Grade 5 Science Short-Response Task

### Task with an Example of a Top-Score Response for This Task

Frogs are the major predators of fireflies. Explain how energy from the Sun is transferred through a firefly to a frog.

READ  
INQUIRE  
EXPLAIN

*An explanation similar to the following:*

The Sun's energy is caught by plants that use the energy to grow. That energy is transferred to the firefly when it eats these plants. When the frog eats the firefly, the frog gets the firefly's energy.



## Grade 8 Science Short-Response Task

### Task with an Example of a Top-Score Response for This Task

READ  
INQUIRE  
EXPLAIN

When the astronauts landed on the Moon, they brought the Dante II, a lunar rover. On the Moon, the weight of the Dante II was different than its weight on Earth, but its mass remained the same.

#### THE WEIGHT AND MASS OF DANTE II

Location	Weight (in newtons)	Mass (in kilograms)
on Earth	7560	771
on Moon	1263	771

Explain why the weight of the Dante II was different, but its mass remained the same.

*An explanation similar to the following:*

Earth's gravity is much greater than the Moon's. There was less gravity pulling on the lunar rover when it was on the Moon, so the lunar rover weighed less. Mass is the amount of matter in something. Mass is not affected or influenced by gravity. That's why when you are on the Moon your mass doesn't change.

## Grade 11 Science Short-Response Task

### Task with an Example of a Top-Score Response for This Task

READ  
INQUIRE  
EXPLAIN

A scientist conducted an experiment that compared two similar weightlifting programs. Subjects in Group A lifted weights for 20 minutes each day, two days a week, for eight weeks. Subjects in Group B lifted weights for 20 minutes each day, four days a week, for eight weeks. Subjects in both groups were tested for muscle mass and strength before and after the eight-week program. The final averaged data are in the table below.

#### WEIGHTLIFTING PROGRAMS

	% Increase Group A	% Increase Group B
Muscle mass	2	5
Strength	4	9

**Part A** The scientist concluded that her original hypothesis was supported by the data. Identify the **most likely** hypothesis that the scientist formulated before conducting the experiment.

*An explanation similar to the following:*

The subjects in the group that lifted weights more days per week would

have a higher percent increase in muscle mass and strength than subjects in

the group that lifted weights fewer days per week.

**Part B** Using your hypothesis from Part A, explain how the data collected would look if the hypothesis had not been supported.

If the hypothesis had not been supported, then the subjects in Group A would

have a higher percent increase of muscle mass and strength than the subjects

in Group B.

# FCAT Science Holistic Rubrics

## Short-Response Tasks

- 2 Points:** A score of two indicates that the student has demonstrated a thorough understanding of the scientific concepts and/or procedures embodied in the task. The student has completed the task correctly, in a scientifically sound manner. When required, student explanations and/or interpretations are clear and complete. The response may contain minor flaws that do not detract from the demonstration of a thorough understanding.
- 1 Point:** A score of one indicates that the student has provided a response that is only partially correct. For example, the student may arrive at an acceptable conclusion or provide an adequate interpretation, but may demonstrate some misunderstanding of the underlying scientific concepts and/or procedures. Conversely, a student may arrive at an unacceptable conclusion or provide a faulty interpretation, but could have applied appropriate and scientifically sound concepts and/or procedures.
- 0 Points:** A score of zero indicates that the student has not provided a response or has provided a response that does not demonstrate an understanding of the scientific concepts and/or procedures embodied in the task. The student's explanation may be uninterpretable, lack sufficient information to determine the student's understanding, contain clear misunderstandings of the underlying scientific concepts and/or procedures, or may be incorrect.

## Extended-Response Tasks

- 4 Points:** A score of four indicates that the student has demonstrated a thorough understanding of the scientific concepts and/or procedures embodied in the task. The student has completed the task correctly, used scientifically sound procedures, and provided clear and complete explanations and interpretations. The response may contain minor flaws that do not detract from a demonstration of a thorough understanding.
- 3 Points:** A score of three indicates that the student has demonstrated an understanding of the scientific concepts and/or procedures embodied in the task. The student's response to the task is essentially correct, but the scientific procedures, explanations, and/or interpretations provided are not thorough. The response may contain minor flaws that reflect inattentiveness or indicate some misunderstanding of the underlying scientific concepts and/or procedures.
- 2 Points:** A score of two indicates that the student has demonstrated only a partial understanding of the scientific concepts and/or procedures embodied in the task. Although the student may have arrived at an acceptable conclusion or provided an adequate interpretation of the task, the student's work lacks an essential understanding of the underlying scientific concepts and/or procedures. The response may contain errors related to misunderstanding important aspects of the task, misuse of scientific procedures/processes, or faulty interpretations of results.
- 1 Point:** A score of one indicates that the student has demonstrated a very limited understanding of the scientific concepts and/or procedures embodied in the task. The student's response is incomplete and exhibits many flaws. Although the student's response has addressed some of the conditions of the task, the student has reached an inadequate conclusion and/or provided reasoning that is faulty or incomplete. The response exhibits many flaws or may be incomplete.
- 0 Points:** A score of zero indicates that the student has not provided a response or has provided a response that does not demonstrate an understanding of the scientific concepts and/or procedures embodied in the task. The student's explanation may be uninterpretable, lack sufficient information to determine the student's understanding, contain clear misunderstandings of the underlying scientific concepts and/or procedures, or may be incorrect.

<h3>Description of Grade 4 Writing Scores</h3>	<h3>Description of Grade 8 Writing Scores</h3>	<h3>Description of Grade 10 Writing Scores</h3>
<p><b>6.0:</b> The writing focuses on the topic, is logically organized, and includes ample development of supporting ideas or examples. It demonstrates a mature command of language, including precision in word choice. Sentences vary in structure. Conventions are generally correct.</p> <p><b>5.5:</b> The writing was given a 5 by one reader and a 6 by the other reader.</p> <p><b>5.0:</b> The writing focuses on the topic with adequate development of supporting ideas or examples. It has an organizational pattern, but lapses may occur. Word choice is adequate. Sentences vary in structure. Punctuation, capitalization, and spelling are generally correct.</p> <p><b>4.5:</b> The writing was given a 4 by one reader and a 5 by the other reader.</p> <p><b>4.0:</b> The writing generally focuses on the topic, but it may contain extraneous information. An organizational pattern is evident, but lapses may occur. Some supporting ideas contain specifics and details, but others are not developed. Word choice is adequate. Sentences vary somewhat in structure, though many are simple. Knowledge of conventions is demonstrated, and commonly used words are usually spelled correctly.</p> <p><b>3.5:</b> The writing was given a 3 by one reader and a 4 by the other reader.</p> <p><b>3.0:</b> The writing generally focuses on the topic, but it may contain extraneous information. An organizational pattern has been attempted, but lapses may occur. Some of the supporting ideas or examples may not be developed. Word choice is adequate but limited. Sentences vary somewhat in structure, though many are simple. Knowledge of conventions is demonstrated, and commonly used words are usually spelled correctly.</p> <p><b>2.5:</b> The writing was given a 2 by one reader and a 3 by the other reader.</p> <p><b>2.0:</b> The writing may be slightly related to the topic or offer little relevant information and few supporting ideas or examples. There is little evidence of an organizational pattern. Word choice may be limited or immature. Sentences may be limited to simple constructions. Frequent errors may occur in punctuation, capitalization, and spelling.</p> <p><b>1.5:</b> The writing was given a 1 by one reader and a 2 by the other reader.</p> <p><b>1.0:</b> The writing may only minimally address the topic because there is little or no development of supporting ideas or examples. Unrelated information may be included. No organizational pattern is evident. Ideas are usually provided through lists, and word choice is limited or immature. Frequent errors in punctuation, capitalization, spelling, and sentence structure may impede communication.</p> <p><b>U:</b> The writing is unrelated to the assigned topic or cannot be read.</p>	<p><b>6.0:</b> The writing focuses on the topic, is logically organized, and includes substantial development of supporting ideas or examples. It demonstrates a mature command of language, including precision in word choice. Sentences vary in structure. Conventions are generally correct.</p> <p><b>5.5:</b> The writing was given a 5 by one reader and a 6 by the other reader.</p> <p><b>5.0:</b> The writing focuses on the topic with ample development of supporting ideas or examples. It has an organizational pattern, though lapses may occur. Word choice is mature and precise. Sentences vary in structure. Conventions are generally correct.</p> <p><b>4.5:</b> The writing was given a 4 by one reader and a 5 by the other reader.</p> <p><b>4.0:</b> The writing generally focuses on the topic, but it may contain extraneous information. An organizational pattern is evident, but lapses may occur. Support is adequate, but development may be uneven. Sentences sometimes vary in structure, though many are simple. Conventions are generally followed.</p> <p><b>3.5:</b> The writing was given a 3 by one reader and a 4 by the other reader.</p> <p><b>3.0:</b> The writing generally focuses on the topic, though it may contain extraneous information. An organizational pattern has been attempted, but lapses may occur. Some of the supporting ideas or examples may not be developed. Word choice is adequate. Sentence structure may vary, though many sentences have simple constructions. Knowledge of conventions is usually demonstrated.</p> <p><b>2.5:</b> The writing was given a 2 by one reader and a 3 by the other reader.</p> <p><b>2.0:</b> The writing is related to the topic but offers little relevant information and few supporting ideas or examples. There is little evidence of an organizational pattern. Word choice is limited or immature. Sentences may be limited to simple constructions. Frequent errors may occur in conventions.</p> <p><b>1.5:</b> The writing was given a 1 by one reader and a 2 by the other reader.</p> <p><b>1.0:</b> The writing may only minimally address the topic because there is little or no development of supporting ideas. Unrelated information may be included. An organizational pattern may not be evident. Ideas are provided through lists, and word choice is limited or immature. Frequent errors in sentence structure and conventions impede communication.</p> <p><b>U:</b> The writing is unrelated to the assigned topic or cannot be read.</p>	<p><b>6.0:</b> The writing focuses on the topic, is logically organized, and includes substantial development of supporting ideas or examples. It demonstrates a mature command of language with freshness of expression. Sentences vary in structure. Few, if any, errors occur in conventions.</p> <p><b>5.5:</b> The writing was given a 5 by one reader and a 6 by the other reader.</p> <p><b>5.0:</b> The writing focuses on the topic, is logically organized, and includes ample development of supporting ideas or examples. It demonstrates a mature command of language. Sentences vary in structure. Conventions are generally correct.</p> <p><b>4.5:</b> The writing was given a 4 by one reader and a 5 by the other reader.</p> <p><b>4.0:</b> The writing focuses on the topic, though it may contain loosely related information. An organizational pattern is apparent. Support is consistently developed, but it may lack specificity. Word choice is adequate. Sentences vary in structure. Conventions are generally correct.</p> <p><b>3.5:</b> The writing was given a 3 by one reader and a 4 by the other reader.</p> <p><b>3.0:</b> The writing generally focuses on the topic, though it may contain loosely related information. An organizational pattern is demonstrated. Development of the supporting ideas may be uneven. Word choice is adequate. There is some variation in sentence structure. Usage, punctuation, and spelling are generally correct.</p> <p><b>2.5:</b> The writing was given a 2 by one reader and a 3 by the other reader.</p> <p><b>2.0:</b> The writing addresses the topic, but it may lose focus by including extraneous information. An organizational pattern is demonstrated. Development of the supporting ideas may be nonspecific. Word choice may be limited. Errors may occur in the basic conventions.</p> <p><b>1.5:</b> The writing was given a 1 by one reader and a 2 by the other reader.</p> <p><b>1.0:</b> The writing addresses the topic, but it may lose focus by including extraneous and loosely related ideas. The organizational pattern is weak. Ideas are presented through lists and limited or inappropriate word choice. Frequent errors may occur in sentence construction, usage, punctuation, and spelling.</p> <p><b>U:</b> The writing is unrelated to the assigned topic or cannot be read.</p>

# Sunshine State Standards Reports of Results Reading, Mathematics, and Science

FCAT Florida Comprehensive Assessment Test		Spring 2005 Florida Comprehensive Assessment Test (FCAT) SUNSHINE STATE STANDARDS District Report of Schools Grade 10														A District Number and Name 99 - SUNSHINE		
B READING														C				
Number of Students	Mean Developmental Scale Score (0 - 3000)	Mean Scale Score (100 - 500)	Percent Passing	Percent in Each Achievement Level					Mean Points Earned by Content Area				Results for Students Matched to Previous Year					
				1	2	3	4	5	9	20	8	14	Percent Matched To 2004	Mean Developmental Scale Score (2005)	Mean Developmental Scale Score (2004)	Mean DSS Change for Matched Students (2005 - 2004)		
Number of Points Possible																		
SUNSHINE HIGH SCHOOL	119	1905	293	55	44	21	19	7	10	68	4	9	7	11	71	1920	1786	131
GREENFIELD HIGH	219	1959	305	64	33	31	20	8	9	72	5	9	6	10	68	1961	1807	154
SUMMARY																		
District	338	1940	301	57	38	26	20	8	10	64	5	9	6	10	69	1936	1786	150
State	145268	1938	297	56	29	35	24	7	6	61	4	8	6	10	74	1925	1790	135

The report format shown above is used for several different FCAT *Sunshine State Standards* Reading, Mathematics, and Science reports. The sample report is the *Grade 10 Reading SSS District Report of Schools*. Similar formats are used for each subject area and grade level. The reports listed below are formatted similarly.

- *School Report of Students*
- *District Report of Schools* (shown)
- *State Report of Districts*
- *District Report of Scores*
- *State Report of Scores*

- A** The title of the report is printed here. It identifies the content of the report and the grade level of the data included in the report. The name and number of the school or district are also printed in this area.
- B** Section B contains information headings that describe the scores included on the report. The number of students appears in the first column of all reports except the *School Report of Students*. *Reading and Mathematics Reports of Results* have columns describing Developmental Scale Scores (DSS) and scale scores. *Science Reports of Results* do not contain any DSS data. The “Passing” or “Percent Passing” columns only appear on the *Reading and Mathematics Reports of Results* for Grades 10–Adult. The *School Report of Students* indicates with a “Y” (yes) or an “N” (no) whether or not the student earned a passing score, and the remaining reports indicate the percent of students who earned a passing score in that subject. Achievement level data are also reported in Section B. The *School Report of Students* indicates with a check mark the student’s achievement level, and the remaining reports indicate the percentage of students who scored within each achievement level. Because achievement levels have not been set for the FCAT Science SSS test, this data will not be reported on the *Science Reports of Results*. The remaining columns in Section B report the points earned (as on the *School Report of Students*) or mean points earned by content subcategory.
- C** Section C provides information on the “Results for Students Matched to Previous Year.” This section does not appear on the *Science Reports of Results* because there is no prior year’s data match for FCAT Science. The *School Report of Students* indicates with a check mark whether or not the student was matched to previous year’s results for that subject. For the *School Report of Students*, the final columns indicate the previous year’s achievement level and DSS and the DSS change. The remaining reports display the percent matched and the mean DSS for both the current and previous years and the “Mean DSS Change.”
- D** The first row of information shown in Section D is the “Number of Points Possible,” which varies by subject and grade level. The other information found in Section D varies depending on the report. The *School Report of Students* lists scores by student, the *District Report of Schools* displays scores by school, and the *State Report of Districts* provides scores by district. The *State Report of Scores* and *District Report of Scores* display state-level scores and district-level scores, respectively, separated by student grade level.
- E** Section E contains school, district, and state summary data. Summary data are printed at the bottom of the last page of the report.

# Norm-Referenced Test Reports of Results Reading and Mathematics

		B READING										C MATHEMATICS								
		Total Test Scores			Mean Points Earned by Content							Total Test Scores			Mean Points Earned by Content					
		Number of Students	Mean Scale Score	Median NPR	Literary	Informational	Functional	Initial Understanding	Interpretation	Critical Analysis	Strategies	Number of Students	Mean Scale Score	Median NPR	Number Sense and Operations	Patterns, Relationships and Algebra	Data, Statistics and Probability	Geometry and Measurement		
D		Number of Points Possible			18	18	18	10	20	14	10				9	15	12	14		
D		SUNSHINE HIGH SCHOOL	0001	370	708	61	14	13	14	6	15	12	8	112	705	58	6	7	5	3
D		GREENFIELD HIGH SCHOOL	0002	290	704	57	12	11	17	7	18	11	4	204	708	62	4	6	5	7
E		SUMMARY																		
E		District		322	691	46	15	14	8	8	15	12	2	316	729	81	7	12	4	6
E		State		142812	695	50	13	14	11	5	17	9	7	142905	714	68	3	8	7	6



The report format shown above is used for several different FCAT Norm-Referenced Test Reading and Mathematics reports. The sample report is the *Grade 10 District Report of Schools*, but a similar format is used for Grades 3–9. Grades 11–Adult students will not be reported on the *Norm-Referenced Test Reports of Results* because they do not take the Reading or Mathematics NRT tests. The reports listed below are formatted similarly.

- *School Report of Students*
- *District Report of Schools* (shown)
- *State Report of Districts*
- *District Report of Scores*
- *State Report of Scores*

- A** The title of the report is printed here. It identifies the content of the report and the grade level of the data included in the report. The name and number of the school or district are also printed in this area.
- B & C** Sections B (**Reading**) and C (**Mathematics**) contain column headings that describe the scores included on the report. The number of students appears in the first column of all reports except the *School Report of Students*, which displays the student’s scale score, National Percentile Rank (NPR), and total points earned by content subcategory. The remaining reports provide the mean scale score, median NPR, and the mean points earned by content subcategory.
- D** The first row of information shown in Section D is the “Number of Points Possible,” which varies by subject and grade level. The other information found in Section D varies depending on the report. The *School Report of Students* lists scores by student, the *District Report of Schools* displays scores by school, and the *State Report of Districts* provides scores by district. The *District Report of Scores* displays district-level scores separated by student grade level. The *State Report of Scores* displays state-level scores separated by student grade level. The “Number of Points Possible” line is printed before the data for the appropriate grade level on the *District Report of Scores* and the *State Report of Scores*.
- E** Section E contains school, district, and state summary data. Summary data are printed at the bottom of the last page of the report.



# Reports of Results–Writing

	<b>Spring 2005</b> <b>Florida Comprehensive Assessment Test (FCAT)</b> <b>Writing</b> <b>Grade 10 District Results</b>		<b>99–SUNSHINE</b>  <b>Number of Participating Schools in the District: 3</b>																																																																							
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>B How Papers Are Scored</b></p> <p>The student responses are scored by trained readers using the holistic method to evaluate a piece of writing for its overall quality. The readers consider four elements: focus, organization, support, and conventions. In this type of scoring, readers make a judgment about the entire response and do not focus on any one aspect of the writing.</p> <p><b>Focus</b> refers to how clearly the paper presents and maintains a clear main idea, theme, or unifying point. Papers representing the higher end of the point scale demonstrate a consistent awareness of the topic and do not contain extraneous information.</p> <p><b>Organization</b> refers to the structure or plan of development (beginning, middle, and end) and whether the points are logically related to one another. Organization also refers to (1) the use of transitional devices to relate the supporting ideas to the main idea, theme, or unifying point and (2) the evidence of a connection between sentences. Papers representing the higher end of the point scale use transitions to signal the plan or text structure and end with summary or concluding statements.</p> <p><b>Support</b> refers to the quality of the details used to explain, clarify, or define. The quality of the support depends on word choice, specificity, depth, and thoroughness. Papers representing the higher end of the point scale provide examples and illustrations in which the relationship between the supporting ideas and the topic is clear.</p> <p><b>Conventions</b> refers to punctuation, capitalization, spelling, and variation in sentence structure used in the paper. The conventions are basic writing skills included in Florida’s Sunshine State Standards. Papers representing the higher end of the point scale follow, with few exceptions, the conventions of punctuation, capitalization, and spelling and use a variety of sentence structures to present ideas.</p> </div> <div style="width: 45%;"> <p><b>C Number and Percentage of Students Receiving Each Score*</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th rowspan="2">Score</th> <th colspan="2">Writing to Explain</th> <th colspan="2">Writing to Convince</th> </tr> <tr> <th>Number</th> <th>Percent</th> <th>Number</th> <th>Percent</th> </tr> </thead> <tbody> <tr><td>6.0</td><td>15</td><td>2%</td><td>32</td><td>3%</td></tr> <tr><td>5.5</td><td>46</td><td>5%</td><td>47</td><td>5%</td></tr> <tr><td>5.0</td><td>138</td><td>14%</td><td>133</td><td>13%</td></tr> <tr><td>4.5</td><td>163</td><td>16%</td><td>110</td><td>11%</td></tr> <tr><td>4.0</td><td>380</td><td>38%</td><td>336</td><td>34%</td></tr> <tr><td>3.5</td><td>106</td><td>11%</td><td>104</td><td>11%</td></tr> <tr><td>3.0</td><td>109</td><td>11%</td><td>136</td><td>14%</td></tr> <tr><td>2.5</td><td>15</td><td>2%</td><td>28</td><td>3%</td></tr> <tr><td>2.0</td><td>9</td><td>1%</td><td>48</td><td>5%</td></tr> <tr><td>1.5</td><td>5</td><td>1%</td><td>4</td><td>&lt; 0.5%</td></tr> <tr><td>1.0</td><td>4</td><td>&lt; 0.5%</td><td>7</td><td>1%</td></tr> <tr><td>Response Not Related to the Assigned Topic:</td><td>0</td><td>&lt; 0.5%</td><td>1</td><td>&lt; 0.5%</td></tr> <tr><td>Response Could Not Be Read:</td><td>1</td><td>&lt; 0.5%</td><td>1</td><td>&lt; 0.5%</td></tr> </tbody> </table> </div> </div>	Score	Writing to Explain		Writing to Convince		Number	Percent	Number	Percent	6.0	15	2%	32	3%	5.5	46	5%	47	5%	5.0	138	14%	133	13%	4.5	163	16%	110	11%	4.0	380	38%	336	34%	3.5	106	11%	104	11%	3.0	109	11%	136	14%	2.5	15	2%	28	3%	2.0	9	1%	48	5%	1.5	5	1%	4	< 0.5%	1.0	4	< 0.5%	7	1%	Response Not Related to the Assigned Topic:	0	< 0.5%	1	< 0.5%	Response Could Not Be Read:	1	< 0.5%	1
Score	Writing to Explain		Writing to Convince																																																																							
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Response Could Not Be Read:	1	< 0.5%	1	< 0.5%																																																																						
<p>** No data are reported when fewer than 10 students were tested or all students are receiving the same score.</p> <p>* Percentages are rounded to the nearest whole number. If the percentage is less than 0.5%, it is written as &lt;0.5%.</p>	<p>Number Tested on Each Type of Writing:</p> <table border="1" style="width: 100%;"> <tr><td>990</td><td>987</td></tr> <tr><td>4.1</td><td>4.0</td></tr> </table> <p>Average Score for Each Type of Writing:</p>	990	987	4.1	4.0	<p>Number Tested on Both Types of Writing:</p> <table border="1" style="width: 100%;"> <tr><td>1977</td></tr> <tr><td>4.0</td></tr> </table> <p>Average Score for Both Types of Writing:</p>	1977	4.0	<p>Data Run Date: 03/03/2005</p>																																																																	
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4.1	4.0																																																																									
1977																																																																										
4.0																																																																										

The report format shown above is used for the three reports of writing results listed below. Each of the reports is provided for all three grades tested (Grades 4, 8, and 10).

- *FCAT Writing School Results*
- *FCAT Writing District Results* (shown)
- *FCAT Writing State Results*

- A** The title of the report found in Section A identifies the grade and content of the report, i.e., school, district, or state. The name and number of the school or district are also printed in Section A, as is the number of schools (or districts) included in the summary.
- B** The four elements of writing being assessed (focus, organization, support, and conventions) are described in this section. The holistic rubric for each grade level (see page 22) is found on the back of the writing school, district, and state summary reports described on this page.
- C** Section C contains the distribution and mean scores for each prompt and the combined mean. The data include the number and percent of students writing to each prompt for each of the possible score points. Two trained scorers score each paper using the FCAT Writing holistic rubric. Although only whole number scores (1–6) are assigned, scores from two scorers are averaged and half points can occur. For example, when a paper receives scores of 3 and 4, the final score is 3.5. Very few papers (less than one percent) are identified in the two unscorable categories shown on this report.

## Report Not Shown

The *Writing School Listing of Achievement* report is not shown in this booklet. This report is an alphabetical list of students tested and the scores they received. It is presented in a two-column format. The students given one prompt are listed in one of the columns, and the students given the other prompt are listed in the other column.

# Reports of School Means–Writing

<div style="text-align: center;"> <b>A</b>                      Spring 2005                      Florida Comprehensive Assessment Test (FCAT)                      Writing                      District Report of School Means and Score Point Distributions                      Grade 10  <span style="float: right;">99 - SUNSHINE</span> </div>																	
	Number of Students	Mean Score	<div style="text-align: center;"> <b>B</b>                      Percent and Number Earning Each Score Point*                 </div>											Percent and Number Unscorable*			
			1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Off Topic	Illegible	Total Unscorable	
9999 SUNSHINE SCHOOL EXPOSITORY	19	3.9	PERCENT NUMBER	0 0	0 0	0 0	5 1	11 2	21 4	32 6	26 5	0 0	0 0	5 1	0 0	0 0	0 0
PERSUASIVE	22	3.9	PERCENT NUMBER	0 0	0 0	0 0	0 0	18 4	32 7	14 3	27 6	9 2	0 0	0 0	0 0	0 0	0 0
COMBINED	41	3.9	PERCENT NUMBER	0 0	0 0	0 0	2 1	15 6	27 11	22 9	27 5	5 2	0 1	2 1	0 0	0 0	0 0
9998 GREENFIELD HIGH EXPOSITORY	52	4.1	PERCENT NUMBER	2 1	0 0	0 0	0 0	15 8	12 6	27 14	21 11	17 9	4 2	2 1	0 0	0 0	0 0
PERSUASIVE	56	3.9	PERCENT NUMBER	0 0	0 0	5 3	5 3	9 5	23 13	30 17	9 5	14 8	2 1	2 1	0 0	0 0	0 0
COMBINED	108	4.0	PERCENT NUMBER	1 1	0 0	3 3	3 3	12 13	10 19	29 31	15 16	16 17	3 3	2 2	0 0	0 0	0 0
STATE EXPOSITORY	72,150	3.9	PERCENT NUMBER	2 1600	1 772	4 3196	4 2668	13 9663	10 7061	26 19029	13 9279	16 11713	5 3490	4 3087	0 35	0 261	0 296
PERSUASIVE	73,121	3.8	PERCENT NUMBER	2 1466	1 988	6 4084	5 3633	15 11307	12 8864	24 17817	12 9049	15 10656	3 2497	3 1942	0 89	0 320	1 409
COMBINED	145,271	3.9	PERCENT NUMBER	2 3066	1 1760	5 7280	4 6301	14 20970	11 15925	25 36846	13 18328	15 22369	4 5987	3 5029	0 124	0 581	0 705

\*Percentages are rounded to the nearest whole number. If the percentage is less than 0.5%, it is written as <0.5%.  
 \*\*No data are reported when fewer than 10 students were tested or all students are receiving the same score.

Data Run Date: 03/03/2005

The report format shown above is used for the two writing results reports listed below. Both of the reports are provided for all three grades tested (Grades 4, 8, and 10).

- *District Report of School Means and Score Point Distributions* (shown)
- *State Report of District Means and Score Point Distributions*

- A** The title of the report found in Section A identifies the content of the report and the grade level of the data included in the report. The name and number of the school district are also printed in Section A on the *District Report of School Means and Score Point Distributions*.
- B** Section B contains column headings that show the scores included in the report. The score point distribution is based on the final score for each student. Two trained scorers score each paper using the FCAT Writing holistic rubric. Although only whole number scores (1 through 6) are assigned, scores from two scorers are averaged and half points can occur. For example, when a paper receives scores of 3 and 4, the final score is 3.5. Very few papers (less than one percent) are identified in the two unscorable categories shown on this report.
- C** The column labeled C contains the list of schools (or districts) included in the report. On the last page of the *District Report of School Means and Score Point Distributions*, district and state summary data are included. In addition to the types of prompts used at the grade level, a summary for both prompts combined is also given. This is the only report that gives a summary of the point distribution for both prompts combined.
- D** Section D contains the reported data: the percent and number of students in each category. For example, at Sunshine School there were 11 students (27%) who received a score of 4.5. Five of these 11 students wrote expository papers, and six wrote persuasive papers. Overall there were 41 students tested and about half responded to each prompt (19 for expository and 22 for persuasive). The mean scores for each mode of writing were identical at this school.

# Sunshine State Standards Demographic Reports Reading, Mathematics, and Science

FCAT Florida Comprehensive Assessment Test		Spring 2005 Florida Comprehensive Assessment Test (FCAT) SUNSHINE STATE STANDARDS District Demographic Report Grade 10														A District Number and Name 99 - SUNSHINE														
		B READING							C MATHEMATICS																					
Number of Points Possible		Total Test Scores					Mean Points Earned		Total Test Scores					Mean Points Earned																
RACIAL/ETHNIC/GENDER		Number of Students	Mean Developmental Scale Score (0-3000)	Mean Scale Score (100-500)	Percent Passing	Percent in Each Achievement Level					Percent In Achievement Levels 3 - 5	Words/Phrases	Main Idea/Purpose	Comparisons	Reference/Research	Number of Students	Mean Developmental Scale Score (0-3000)	Mean Scale Score (100-500)	Percent Passing	Percent in Each Achievement Level					Percent In Achievement Levels 3 - 5	Number Sense	Measurement	Geometry	Algebraic Thinking	Data Analysis
						1	2	3	4	5										1	2	3	4	5						
White		106	2015	316	67	19	34	27	10	10	61	5	10	9	10	111	2034	327	80	13	19	31	27	10	71	7	6	7	8	6
Black		95	2021	320	63	25	31	23	8	12	72	6	8	8	11	92	2030	324	79	15	21	30	25	9	69	7	5	7	8	6
Hispanic		78	2007	311	66	24	35	23	10	8	63	5	9	8	10	81	2019	317	71	20	22	26	25	7	68	6	5	7	8	6
Asian/Pacific Islander		8	*	*	*	*	*	*	*	*	*	*	*	*	*	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*
American Indian/Alaskan																														
SUMMARY																														
District		387	2007	311	64	26	35	23	8	8	58	5	10	8	9	401	2060	326	78	14	20	27	30	9	67	7	5	7	8	6
State		146581	1981	303	59	32	33	21	8	7	70	6	9	8	8	149311	2021	319	73	19	21	25	27	8	65	6	5	7	8	6

The report format shown on this page is used for the FCAT *Sunshine State Standards* Reading, Mathematics, and Science school, district, and state reports of demographic results. The demographic results for Reading and Mathematics appear on one report, and the demographic results for Science appear on a separate report. A sample of the *Grade 10 Reading and Mathematics Demographic Report* is shown above. A similar format is used for the Reading and Mathematics reports at Grades 3–9 and 11–Adult and the Science reports at Grades 5, 8, and 11. (The Reading and Mathematics demographic reports for Grades 3–9 and the Science demographic reports do not contain the “Percent Passing” column.)

- A** The title of the report is printed here. It identifies the content of the report and the grade level of the data included in the report. The name and number of the school or district are also printed here.
- B & C** Sections B (**Reading**) and C (**Mathematics**) contain column headings that describe the scores included on the report. The number of students appears in the first column. The “Percent Passing” column indicates the percentage of students who earned a passing score in that subject. This column appears only on the Reading and Mathematics reports for Grades 10–Adult. The “Mean Developmental Scale Score” is provided in the second column. The “Mean Scale Score” is provided in the third column. The percent of students who scored in each of the five achievement levels and the “Mean Points Earned” in each content subcategory are also provided.
- D** The first row of information shown in Section D is the “Number of Points Possible” in each content area. The number of points possible may vary by grade level. The other categories listed in Section D are the demographic groups for which FCAT data are disaggregated. The disaggregated data included in these reports are based on information gathered from the FTE survey. Data on the demographic reports are disaggregated for racial/ethnic categories, gender, and other special categories. The Special Categories group includes standard curriculum, limited English proficient (LEP), migrant, Section 504, free or reduced lunch, not free or reduced lunch, total ESE other than gifted, not ESE plus gifted, exceptional student education classifications (ESE), and students not matched to the enrollment file.
- E** Section E contains school, district, and state summary data.

# Demographic Reports–Writing

		Number of Students	Mean Score	Percent Earning Each Score Point											Percent Unscorable		
				1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Off Topic	Illegible	Total Unscorable
<b>RACIAL/ETHNIC/GENDER</b>																	
	White	508	3.8	3	3	7	16	20	13	18	8	6	3	3	0	1	1
	Black	357	3.7	3	4	8	17	22	25	13	3	2	2	1	0	0	0
	Hispanic	201	3.8	2	7	8	16	17	17	16	8	4	3	2	0	0	0
	Asian/Pacific Island	100	3.6	0	3	7	12	23	19	19	8	6	0	3	0	0	0
	American Indian/Alaskan	20	3.7	2	1	7	14	20	15	25	10	5	1	2	0	0	0
	Multiracial/Ethnic	16	3.5	2	4	13	15	18	18	16	7	4	2	1	0	0	0
	Unreported Race/Ethnicity	5*															
	Female	560	3.5	3	3	8	17	23	24	12	4	3	1	1	1	0	1
	Male	630	3.5	2	2	7	16	27	26	12	3	2	1	1	0	0	0
	Unreported Gender	17	3.4	0	0	18	12	18	24	12	6	6	6	0	0	0	0
<b>SUMMARY</b>																	
	District	1207	3.7	1	1	2	2	10	12	35	17	14	4	3	<-0.5%	<-0.5%	<-0.5%
	State	71253	4	1	1	3	3	12	12	37	15	13	3	2	<-0.5%	<-0.5%	<-0.5%

\*No data are reported when fewer than 10 students were tested or all students are receiving the same score. Data Run Date: 03/03/2005

The report format shown on this page is used for school, district, and state reports of the FCAT Writing demographic results. Although the report shown is the *Grade 10 District Demographic Report*, a similar format is used for Grades 4 and 8.

- A** The title of the report found in Section A identifies the content of the report and the grade level of the data included in the report. The name and number of the school or district are also printed in Section A.
- B** The score point distribution is based on the final score for each student. Two trained scorers score each paper using the FCAT Writing holistic rubric. The score reported is the average of scores from two scorers and half points can occur. For example, when a paper receives scores of 3 and 4, the final score is 3.5. Very few papers (less than one percent) are identified in the two unscorable categories shown on this report.
- C** The categories listed in Section C are the demographic groups for which FCAT data are disaggregated. The disaggregated data included in these reports are based on information gathered from the FTE survey. Data on the demographic reports are disaggregated for racial/ethnic categories, gender, and other special categories. The Special Categories group includes standard curriculum, limited English proficient (LEP), migrant, free or reduced lunch, Section 504, not free or reduced lunch, total ESE other than gifted, not ESE plus gifted, exceptional student education (ESE) classifications, and students not matched to the enrollment file.
- D** Section D contains summary data for the district and state.

# Norm-Referenced Test Demographic Reports Reading and Mathematics

Spring 2005 Florida Comprehensive Assessment Test (FCAT) NORM-REFERENCED TEST District Demographic Report Grade 10														A District Number and Name 99 - SUNSHINE			
B READING										C MATHEMATICS							
Total Test Scores			Mean Points Earned by Content							Total Test Scores			Mean Points Earned by Content				
Number of Students	Mean Scale Score	Median NPR	Literary	Informational	Functional	Initial Understanding	Interpretation	Critical Analysis	Strategies	Number of Students	Mean Scale Score	Median NPR	Number Sense and Operations	Patterns, Relationships and Algebra	Date, Statistics and Probability	Geometry and Measurement	
Number of Points Possible			18	18	18	10	20	14	10				9	15	12	14	
RACIAL/ETHNIC/GENDER																	
White	370	707	61	1.6	1.3	1.2	8	1.3	1.0	1.0	370	724	7.6	7	8	9	3
Black	290	698	53	1.4	1.4	1.1	6	1.6	1.3	4	290	713	6.8	8	4	6	6
Hispanic	359	693	46	1.5	1.7	5	7	1.4	1.1	5	359	713	6.6	6	6		
SUMMARY																	
District	1269	700	53	1.3	1.4	1.2	10	9	11	9	1314	704	5.8	5	6	4	6
State	144781	695	50	1.2	1.1	1.5	9	10	9	10	144596	710	6.5	6	4	5	8

The report format shown on this page is used for the FCAT Reading and Mathematics Norm-Referenced school, district, and state reports of demographic results. A sample of the *Grade 10 Reading and Mathematics NRT District Demographic Report* is shown above. A similar format is used for Grades 3-9. NRT demographic reports for Grades 11-Adult students are not produced, because they do not take this portion of the test.

- A** The title of the report is printed here. It identifies the grade level of the data included in the report. The name and number of the school or district are also printed here.
- B & C** Sections B (**Reading**) and C (**Mathematics**) contain column headings that describe the scores included on the report. The number of students appears in the first column. The mean scale score is provided, followed by the median national percentile rank (NPR) instead of the mean, because the arithmetic operations required to obtain the mean are inappropriate with NPR scores. These scores are followed by the mean points earned in each content area. The content subcategories vary by grade level. There are two grade-level groupings for the NRT content subcategories: 3-8 and 9-10. For a description of the content subcategories for each grade-level grouping, see page 36.
- D** The first row of information shown in Section D is the number of points possible in each content area. The number of points possible may vary by grade level. The other categories listed in Section D are the demographic groups for which FCAT data are disaggregated. The disaggregated data included in these reports are based on information gathered from the FTE survey. Data on the demographic reports are disaggregated for racial/ethnic, gender, and other special categories. The Special Categories group includes standard curriculum, limited English proficient (LEP), migrant, Section 504, free or reduced lunch, not free or reduced lunch, total ESE other than gifted, not ESE plus gifted, exceptional student education (ESE) classifications, and students not matched to the enrollment file.
- E** Section E contains school, district, and state summary data.

# Content Assessed on the FCAT

## Sunshine State Standards–Reading

The *Sunshine State Standards* identify the reading comprehension processes and skills that students are expected to be able to apply and the FCAT Reading test includes a wide variety of written material to assess students' reading comprehension. The FCAT Reading test includes informational and literary reading passages. Informational passages are written to provide readers with factual information. Examples of the types of informational passages used on the FCAT are magazine and newspaper articles, editorials, and biographies. Literary passages are written primarily for readers' enjoyment. Examples of the types of literary passages used on the FCAT are short stories, poems, folk tales, and selections from novels. The *Sunshine State Standards* Reading portions of the FCAT include the following reading comprehension skills and processes.

### Grades 3–5

#### Words and Phrases in Context

- uses strategies to increase vocabulary through word structure clues (prefixes, suffixes, roots), word relationships (antonyms, synonyms), and words with multiple meanings
- uses context clues to determine word meanings

#### Main Idea, Plot, and Purpose

- determines the stated or implied main idea or essential message in a text
- identifies relevant details and facts
- recognizes and arranges events in chronological order
- identifies author's purpose in a text
- recognizes when a text is intended to persuade
- understands plot development and conflict resolution in a story

#### Comparisons and Cause/Effect

- recognizes the use of comparison and contrast
- recognizes cause-and-effect relationships
- identifies similarities and differences among characters, settings, and events in various texts

#### Reference and Research

- reads, organizes, and interprets written information for various purposes, such as making a report, conducting an interview, taking a test, or performing a task
- uses maps, charts, photos, or other multiple representations of information for research projects

### Grades 6–8

#### Words and Phrases in Context

- uses various strategies, including contextual and word structure clues, to analyze words and text
- draws conclusions from a reading text
- recognizes organizational patterns

#### Main Idea, Plot, and Purpose

- determines the stated or implied main idea or essential message in a text
- identifies relevant details and facts
- recognizes how an organizational pattern supports the main idea
- identifies and uses the author's purpose and point of view to construct meaning from text
- recognizes persuasive text
- recognizes and understands how literary elements support text (e.g., character and plot development, point of view, tone, setting, and conflicts and resolutions)

#### Comparisons and Cause/Effect

- recognizes the use of comparison and contrast
- recognizes cause-and-effect relationships



## Reference and Research

- locates, organizes, and interprets written information for a variety of purposes
- uses a variety of reference materials to gather information for research projects (e.g., indexes, magazines, newspapers, journals, and card and computer catalogs)
- checks validity and accuracy of research information (i.e., strong versus weak arguments, fact versus opinion, and how authors' personal values influence conclusions)
- synthesizes and separates collected information into useful components

## Grades 9–10

### Words and Phrases in Context

- selects and uses strategies to understand words and text
- makes and confirms inferences from a reading text
- interprets data presentations (e.g., maps, diagrams, graphs, and statistical illustrations)

### Main Idea, Plot, and Purpose

- determines stated or implied main idea
- identifies relevant details
- identifies methods of development
- determines author's purpose and point of view
- identifies devices of persuasion and methods of appeal
- identifies and analyzes complex elements of plot (e.g., setting, tone, major events, and conflicts and resolutions)

### Comparisons and Cause/Effect

- recognizes the use of comparison and contrast
- recognizes cause-and-effect relationships

## Reference and Research

- locates, gathers, analyzes, and evaluates information for a variety of purposes
- selects and uses appropriate study and research skills and tools according to the type of information being gathered or organized
- analyzes the validity and reliability of primary source information and uses the information appropriately
- synthesizes information from multiple sources to draw conclusions

# Content Assessed on the FCAT

## Sunshine State Standards–Mathematics

The FCAT Mathematics test assesses the achievement of the *Sunshine State Standards* in mathematics. FCAT Mathematics tests for Grades 3 and 4 include only multiple-choice items. FCAT Mathematics tests for Grades 5–10 combine gridded-response items with multiple-choice items. Additionally, Grades 5, 8, and 10 mathematics tests include several performance tasks, scored on 2-point and 4-point rubrics. Approximately the same number of questions is used for each of the five strands in Grades 3 through 8. At Grades 9 and 10, the *Geometry and Spatial Sense* strand and the *Algebraic Thinking* strand have slightly more questions than the other three strands.

The FCAT Mathematics test for all grade levels assesses what students know and are able to do in the broad content strands listed below. The concept difficulty assessed on the FCAT progresses systematically from grade to grade, as does the complexity of the numerals and mathematical operations included at each grade level.

### Number Sense, Concepts, and Operations

- identifies operations (+, −, ×, ÷) and the effects of operations
- determines estimates
- knows how numbers are represented and used

### Measurement

- recognizes measurements and units of measurement
- compares, contrasts, and converts measurements

### Geometry and Spatial Sense

- describes, draws, identifies, and analyzes two- and three-dimensional shapes
- visualizes and illustrates changes in shapes
- uses coordinate geometry

### Algebraic Thinking

- describes, analyzes, and generalizes patterns, relations, and functions
- writes and uses expressions, equations, inequalities, graphs, and formulas

### Data Analysis and Probability

- analyzes, organizes, and interprets data
- identifies patterns and makes predictions, inferences, and valid conclusions
- uses probability and statistics

# Content Assessed on the FCAT

## Sunshine State Standards–Science

The FCAT Science test assesses the achievement of the *Sunshine State Standards* in Science. The FCAT Science test for Grade 5 includes multiple-choice items, and tests for Grades 8 and 11 combine multiple-choice items with gridded-response items. Additionally, each grade’s test also includes performance tasks, scored on 2-point and 4-point rubrics. At each grade level, the FCAT Science test includes approximately the same number of questions from each of the four clusters.

### Grade 5

#### Physical and Chemical Sciences

- understands that matter can be described, classified, and compared
- traces the flow of energy in a system
- identifies the differences between renewable and non-renewable energy sources
- describes, predicts, and measures the types of motion and effects of forces
- identifies the types of force that act upon an object

#### Earth and Space Sciences

- understands that changes in climate, geological activity, and life-forms can be traced and compared
- recognizes that Earth’s systems change over time
- identifies the cause of the phases of the moon and seasons
- recognizes the role of Earth in the vast universe

#### Life and Environmental Sciences

- understands that living things are different but share similar structures
- recognizes that many characteristics of an organism are inherited
- explains the relationship and interconnectedness of all living things to their environment
- understands that plants use carbon dioxide, minerals, and sunlight to produce food (photosynthesis)

#### Scientific Thinking

- uses scientific method and processes to solve problems
- recognizes that most natural events occur in consistent patterns
- understands the interdependence of science, technology, and society

### Grade 8

#### Physical and Chemical Sciences

- recognizes the differences between solids, liquids, and gases
- contrasts physical and chemical changes
- identifies atomic structures
- recognizes properties of waves
- describes how energy flows through a system
- describes, measures, and predicts the types of motion and effects of force

#### Earth and Space Sciences

- recognizes that forces within and on Earth result in geologic structures, weather, erosion, and ocean currents
- explains the relationship between the Sun, Moon, and Earth
- understands that activities of humans affect ecosystems
- compares and contrasts characteristics of planets, stars, and satellites

#### Life and Environmental Sciences

- identifies the structure and function of cells
- compares and contrasts structures and functions of living things
- understands the importance of genetic diversity
- recognizes how living things interact with their environment

## Scientific Thinking

- uses scientific method and processes to solve problems
- recognizes that most natural events occur in consistent patterns
- understands the interdependence of science, technology, and society

## Grade 11

### Physical and Chemical Sciences

- describes and explains the structure atom and its interactions with other atoms
- recognizes and explains chemical reactions
- describes how energy flows through a system
- describes, measures, and predicts the types of motion and effects of force

### Earth and Space Sciences

- recognizes that forces within and on Earth result in geologic structures, weather, erosion, and ocean currents
- identifies and explains the interconnectedness of Earth's systems
- understands that activities of humans affect ecosystems
- compares and contrasts characteristics of planets, stars, and satellites

### Life and Environmental Sciences

- contrasts and compares the structure and function of major body systems
- recognizes that structures, physiology, and behaviors of living things are adapted to their environment
- identifies and explains the role of DNA
- explains the relationship and interdependence of all living things and their environment

## Scientific Thinking

- uses scientific method and processes to solve problems
- recognizes that most natural events occur in consistent patterns
- understands the interdependence of science, technology, and society

# Content Assessed on the FCAT Sunshine State Standards–Writing+

For the essay portion of FCAT Writing+, students demonstrate their writing skills by producing, within 45 minutes, a draft response to an assigned topic (prompt). This type of writing is called demand writing. Students in Grade 4 write either an expository or a narrative essay while students in Grades 8 and 10 write either an expository or a persuasive essay. Prompts are carefully selected to ensure that the subject matter is interesting and appropriate for the student’s grade level.

## Grade 4

### Writing Process

The student drafts and revises writing in cursive\* that

- focuses on the topic;
- provides a logical organizational pattern, including a beginning, middle, conclusion, and transitional devices;
- includes ample development of supporting ideas;
- demonstrates a sense of completeness or wholeness;
- demonstrates a command of language including precision in word choice;
- indicates a general knowledge of the correct use of subject/verb agreement and verb and noun forms;
- includes, with few exceptions, sentences that are complete except when fragments are used purposefully;
- uses a variety of sentence structures; and
- demonstrates a knowledge of the basic conventions of punctuation, capitalization, and spelling.

## Grade 8

### Writing Process

The student drafts and revises writing that

- focuses on the topic, is purposeful, and reflects insight into the writing situation;
- conveys a sense of completeness and wholeness and adherence to the main idea;
- provides an organizational pattern with a logical progression of ideas;
- includes support that is substantial, specific, relevant, concrete, and/or illustrative;
- demonstrates a commitment to and an involvement with the subject;
- presents ideas with clarity;
- employs creative writing strategies appropriate to the purpose of the paper;
- demonstrates a command of language (word choice) with freshness of expression;
- includes sentences that are complete except when fragments are used purposefully;
- uses a variety of sentence structures; and
- contains few, if any, convention errors in mechanics, usage, and punctuation.

## Grade 10

### Writing Process

The student drafts and revises writing that

- focuses on the topic, is purposeful, and reflects insight into the writing situation;
- provides an organizational pattern with a logical progression of ideas;
- includes effective use of transitional devices that contribute to a sense of completeness;
- includes support that is substantial, specific, relevant, and concrete;
- demonstrates a commitment to and an involvement with the subject;
- employs creative writing strategies appropriate to the purpose of the paper;
- demonstrates a mature command of language with freshness of expression;
- uses a variety of sentence structures; and
- contains few, if any, convention errors in mechanics, usage, punctuation, and spelling.

\*Language Arts Writing Benchmark LA.B.1.2.2 for Grade 4 states that students should write in cursive. For FCAT Writing+, students may print or write in cursive.

# Content Assessed on the FCAT Norm-Referenced Test\*

## Reading Comprehension Content Tested

The FCAT NRT (*Stanford 10*) Reading Comprehension test is composed of reading selections accompanied by questions about each selection. The selections reflect the kinds of literature students read in school and are written to appeal to students of different backgrounds, experiences, and interests.

**Students read and answer questions about the following types of literature:**

- *Literary*—material typically read for enjoyment
- *Informational*—material typically found in grade-appropriate textbooks and other sources of information
- *Functional*—material typically encountered in everyday-life situations

**The test questions are classified by these standards:**

*Initial Understanding*—Demonstrates the ability to comprehend explicitly stated relationships in a variety of reading selections.

*Interpretation*—Demonstrates the ability to form an interpretation of a variety of reading selections based on explicit and implicit information in the selections.

*Critical Analysis*—Demonstrates the ability to synthesize and evaluate explicit and implicit information in a variety of reading selections.

*Strategies*—Demonstrates the ability to recognize and apply text factors and reading strategies in a variety of reading selections.

## Mathematics Content Tested

Student proficiency in mathematics is tested by the FCAT NRT (*Stanford 10*) at Grades 3–8 with the Mathematics Problem Solving test and with the Mathematics test at Grades 9–10. Test questions require the student to use logical reasoning and non-routine problem-solving strategies. Each test question is classified according to its mathematics content.

### Mathematics Content

*Number Sense and Operations*—Demonstrates understanding of the meaning and use of numbers, the various representations of numbers, number systems, and the relationships between and among numbers. Demonstrates understanding of the meaning of operations, the relationship between operations, and the practical settings in which a specific operation or set of operations is appropriate.

*Patterns, Relationships, and Algebra*—Describes, completes, continues, and demonstrates understanding of patterns involving numbers, symbols, and geometric figures. Patterns with numbers include those found in lists, function tables, ratios and proportions, and matrices. Demonstrates understanding of elementary algebraic principles as found in the relationships between mathematical situations and algebraic symbolism.

*Data, Statistics, and Probability*—Describes, interprets, and makes predictions based on the analysis of data presented in a variety of ways, including graphs, plots, tables, and lists. Demonstrates understanding of basic probability concepts.

*Geometry and Measurement*—Demonstrates understanding of the characteristics and properties of plane and solid figures, coordinate geometry, and spatial reasoning. Demonstrates understanding of the meaning and use of various measurement systems, the tools of measurement, and the integral role of estimation in measurement.

\*The FCAT NRT is part of the *Stanford Achievement Test Series, Tenth Edition*, copyright © 2003 by Harcourt Assessment, Inc.

# Glossary

**Note:** Terms defined in this glossary have been cross-referenced and appear in **bold blue**.

**Achievement Levels** – Five categories of achievement that represent the success students demonstrate with the *Sunshine State Standards* content assessed on the FCAT. The achievement levels for FCAT Reading and FCAT Mathematics were established using the input of classroom teachers, curriculum specialists, education administrators, and other interested citizens. These professionals helped the Department of Education identify the score ranges for each achievement level. Achievement levels for FCAT Science and **FCAT Writing+** will be established following the same process. The achievement levels are helpful in interpreting what a student's **scale score** represents.

**Benchmark** – A specific statement that describes what students should know and be able to do. The benchmarks are part of the *Sunshine State Standards*.

**Cluster** – A grouping of related **benchmarks** from the *Sunshine State Standards*. Clusters are used to summarize and report achievement for FCAT Reading and FCAT Science.

**Content Area** – The information or skills contained in an area of study. The content areas (or subject areas) assessed on the FCAT are reading, writing, mathematics, and science.

**Content Subscores** – The number of points earned by a student in each **cluster** or **strand** of the *Sunshine State Standards* portion of FCAT. Content subscores are reported for clusters in FCAT Reading and FCAT Science. In FCAT Mathematics, content subscores are reported for strands.

**Demographic Reports** – Summary reports that represent the scores of various subgroups of the students tested. The information collected about students at the time they take the FCAT includes: name, student identification number, race/ethnicity, gender, and other demographic information. This demographic information and other information is verified from existing Florida Department of Education and school district databases before the reports are produced.

**Developmental Scale Score (DSS)** – A type of **scale score** used to determine a student's annual progress from grade to grade. The FCAT Developmental Scale for Reading and Mathematics ranges from 86 to 3008 across Grades 3–10. On the Student Report, the Developmental Scale Score is called the **FCAT Score**.

**DSS Change** – A calculation made by subtraction of **developmental scale scores** from two years yields the amount of change across the two years, e.g., 2005 DSS – 2004 DSS = DSS Change. This number can be large for students who move from a low Achievement Level 1 score to a low Achievement Level 2 score. It also can be small for a student who maintains a high score in Achievement Level 4. The DSS Change can be understood best when also considering the **achievement level** scores for the two years.

**Exceptional Student Education (ESE)** – Special educational services that are provided to eligible students, e.g., visually impaired, hearing impaired. These services are required by Federal law and are provided to Florida students according to the State Board of Education Rule 6A-6.0331, FAC. Students demonstrate the conditions required for the services and services are provided as described in an Individual Education Plan (IEP). The IEP also specifies the testing accommodations a student needs for classroom instruction and assessments.

**Expository Writing** – Writing that gives information, explains why or how, clarifies a process, or defines a concept. In **FCAT Writing+**, students in Grades 4, 8, and 10 are assigned **prompts** that are intended to result in expository writing.

**FCAT Score** – see **Developmental Scale Score**

**FCAT Writing+** – The Florida Department of Education is currently working to supplement the FCAT Writing essay with **multiple-choice (MC)** items. The first round of **MC** items was field tested this year as part of the February 2005 administration of FCAT Writing+ (essay plus **MC** items). With the addition of the **MC** component, the writing assessment was renamed "FCAT Writing+." For the 2005 school year, only the essay scores will be reported. Scores for FCAT Writing+ will be reported for students for the first time in May 2006.



**Gridded-Response (GR)** – Test questions that require students to solve a problem for which the answer is numerical. Answers must be written and bubbled into a number grid. The gridded-response question format is used in FCAT Mathematics (Grades 5–10) and FCAT Science (Grades 8 and 11).

**Holistic Scoring** – A method of scoring written work that considers the overall quality of the entire work. Scores are assigned to student work using a pre-defined **rubric**.

**Learning Gains** – As part of the school grading system, annual learning gains can be shown three ways.

- (1) Improve an **achievement level**, e.g., from Achievement Level 1 to Achievement Level 2.
- (2) Maintain Achievement Level 3, 4, or 5. Maintaining high scores with harder content each year shows an increase in learning.
- (3) Show adequate **DSS Change** if students stay in Achievement Levels 1 or 2.

**Limited English Proficient (LEP)** – Special education services for students whose primary language is not English. LEP students are permitted testing accommodations when taking the FCAT. Students who have been in LEP programs for more than one year are required to take the FCAT.

**Mean** – An average of the individual scores that describes the performance of a group of students. The mean is computed by finding the sum of all scores and dividing by the number of students.

**Median** – A score that identifies the middle value of a group of data. The median is the point at which a group of numbers (scores) is divided in half (50% above and below).

**Mode** – The most frequently occurring score in a set of scores. If a distribution of scores is statistically normal, the **mean, median,** and mode are the same score.

**Mode of Writing** – The characteristics of written work that reveal the purpose of the writing. **FCAT Writing+** assesses three modes of writing: **narrative, expository,** and **persuasive**.

**Multiple-Choice (MC)** – Test questions that present students with several options from which to choose the correct answer. FCAT Reading, **FCAT Writing+**, FCAT Mathematics, and FCAT Science use items in which four choices are given, only one of which is correct. The three-option multiple-choice format is also used in **FCAT Writing+**.

**Narrative Writing** – Writing that recounts a personal or fictional experience or tells a story based on a real or imagined event. In **FCAT Writing+**, only students in Grade 4 are assigned a **prompt** that is intended to result in narrative writing.

**National Percentile Rank (NPR)** – A score that shows the percent of students who earned the same or a lower score. NPRs are reported for the **norm-referenced test** and show the rank of an individual compared to a national sample of students or “norm” group. They do not compare an individual to Florida students who took the test.

**Norm-Referenced Test (NRT)** – A test designed to compare the performance of one group of students to a national sample of students, called the “norm” group. The NRT portion of FCAT includes the Reading Comprehension and Mathematics Problem Solving subtests (Mathematics at Grades 9 and 10) from the *Stanford Achievement Test Series, Tenth Edition*, published by Harcourt Assessment, Inc. The FCAT NRT uses a scale that in Reading Comprehension has a range from a low of 449 in Grade 3 to a high of 834 in Grade 10. In Mathematics Problem Solving/Mathematics, the range is from a low of 434 in Grade 3 to a high of 885 in Grade 10.

**Performance Tasks** – Test questions that require students to write their answers instead of choosing one from several choices or gridding their response. Two types of performance tasks, short- and extended-response, are used in FCAT Reading, FCAT Mathematics, and FCAT Science. Short-response (SR) questions ask for short answers like describing a character in a story, writing a mathematical equation, or explaining a scientific concept. Extended-response (ER) questions require longer answers such as comparing two passages, constructing a graph, or describing the steps in an experiment.

**Persuasive Writing** – Writing that attempts to convince the reader that a point of view is valid or that the reader should take a specific action. In **FCAT Writing+**, students in Grades 8 and 10 are assigned **prompts** that are intended to result in persuasive writing.

**Points Possible** – The number of “Points Possible” shows the total number of machine-scorable test questions and **performance task** points on a test. The number of “Points Earned” shows how many of these points the student earned. These types of scores are reported only for the **content subscores**, and the number of points possible in a subscore may change slightly each year.

**Prompt** – The topic a student is given on which to write an essay in **FCAT Writing+**. The prompt has two parts: the *writing situation* (presents and clarifies the topic) and the *directions for writing* (guides the student to think about the topic and suggests an approach that may help the student begin writing).

**Rubric** – The scoring guidelines or criteria used to evaluate all FCAT **performance tasks** and essays. The rubric describes what is required for each possible score point.

**Scale Score** – The score used to report test results on the entire test. Scale scores on the FCAT *Sunshine State Standards* tests are 100–500 for each grade level and **content area**. A computer program is used to analyze student responses and to compute the scale score.

**Section 504** – A special classification of students as defined in Section 504 of the Rehabilitation Act of 1973. Testing accommodations are permitted for students who meet the 504 criteria.

**Stanine** – Standard scores that divide a distribution of scores into nine parts. The word “stanine” comes from the fact that it is a STANDARD score on a scale of NINE units.

**State Means** – The average score for each grade used for comparison purposes. Individual student scores, school mean scores, or district mean scores can be compared to state averages.

**Strands** – The broad divisions of content in the *Sunshine State Standards*. For example, in the Language Arts *Sunshine State Standards*, there are seven strands (Reading, Writing, Listening, Viewing, Speaking, Language, and Literature).

**Sunshine State Standards (SSS)** – Florida’s curriculum framework that includes curriculum **content areas**, **strands**, standards, and **benchmarks**. The *Sunshine State Standards* provide guidelines for the educational curriculum in Florida.



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