Committee on K-12

Meeting
Tuesday, January 9, 2007
9:30 a.m. — 12:00 p.m.
212 Knott Building

Marco Rubio
Speaker

Anitere Flores
Chair

Florida House of Representatives

Marco Rubio
Speaker

Committee on K-12

Anitere Flores, Chair
Representative Gary Aubuchon
Representative Dorothy Bendross-Mindigall
Representative Will Kendrick

Marti Coley, Vice Chair
Representative Curtis Richardson
Representative Garrett Richter
Representative Shelley Vana

AGENDA
January 9, 2007

I. Welcoming Remarks by Chair Flores and Vice Chair Coley

II. Introduction of Members and Member Comments

III. Introduction of Staff

IV. Comments by Council Chair Pickens and Vice Chair Traviesa

V. Discussion of Curriculum Reform

VI. Adjournment

K-12 Members

Committee on K-12

Anitere Flores, Chair

District 114

212 The Capitol

488-2831

SunCom 278-2831

Suite 205 C

1405 SW 107th Ave.

Miami, FL 33174-2523

(305) 227-7626

SunCom 479-7626

Legislative Assistant: Maria Chamorro

District Secretary: Alex Prado

Marti Coley, Vice Chair

District 7

319 The Capitol

488-2873

SunCom 278-2873

Building L, Room 108 Chipola College

3094 Indian Circle

Marianna, FL 32446-1701

(850) 718-0047

SunCom 789-0047

GCCC- Administration Building, Room 228

5230 West Highway 98

Panama City, FL 32401-1041

Phone (850) 747-5596

Legislative Assistants: Sharron Brown and Kris Money

District Secretary: Rhonda Thomas

Committee on K-12

Gary Aubuchon
District 74

1003 The Capitol
488-7433
SunCom 278-7433

Suite 305
3501 Del Prado Blvd.
Cape Coral, FL 33904-7223
(239) 344-4900
SunCom 748-4900

Legislative Assistant: Paige Biagi

District Secretary: None

Dorothy Bendross-Mindingall
District 109

214 The Capitol
488-0625
SunCom 278-0625

Suite 1521 E.
1521 NW 54th St.
Miami, FL 33142
(305) 694-2958
SunCom 428-2958

Legislative Assistant: Frankie Buckner

District Secretary: None

Will Kendrick
District 10

223 The Capitol
488-7870
SunCom 278-7870

PO Box K
Carrabelle, FL 32322-1211
(850) 697-5115
SunCom 777-6288

Legislative Assistants: Vicky Summerhill and Connie Shiver

District Secretary: Sybil Kemper

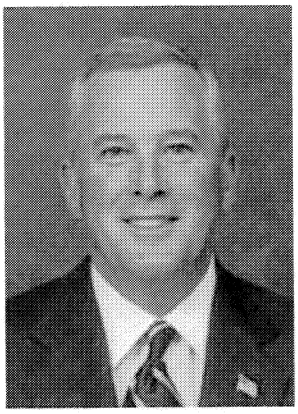
Committee on K-12

Curtis
Richardson
District 8

1001 The Capitol
488-1798
SunCom 278-5432

Legislative Assistant: Chicarla Williams Pye

District Secretary: Rachael Favors



Garrett Richter
District 76

1003 The Capitol
488-4487
SunCom 278-4487

Suite 203
3301 East Tamiami Trail
Naples, FL 34112-3972
(239) 417-6205
SunCom 754-6205

Legislative Assistant: Rebecca Kokkinos

District Secretary: Sarah Innis

Shelley Vana
District 85

1402 The Capitol
488-4791
SunCom 278-4791

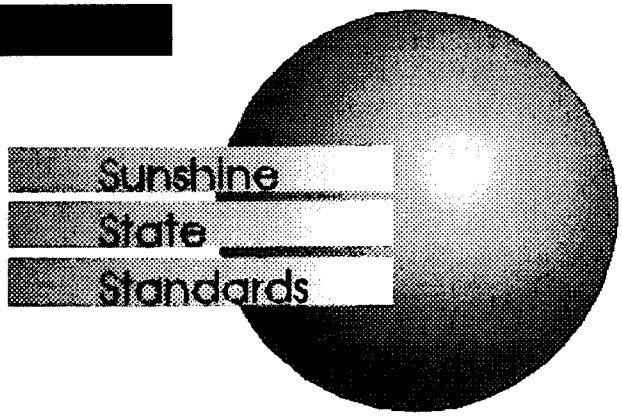
Suite 100
1280 North Congress Ave.
West Palm Beach, FL 33409-6377
(561) 640-6120
SunCom 265-6120

Legislative Assistant: Kathy Peck

District Secretary: Quianna Gray

SSS

Grades K-2



FLORIDA
Department
of Education

Table of Contents

Standard 3:

The student uses speaking strategies effectively. (LA.C.3.1)

1. speaks clearly and at a volume audible in large- or small-group settings.
2. asks questions to seek answers and further explanation of other people's ideas.
3. speaks effectively in conversations with others.
4. uses eye contact and simple gestures to enhance delivery.

Language

Standard 1:

The student understands the nature of language. (LA.D.1.1)

1. recognizes basic patterns in and functions of language (patterns such as characteristic sounds and rhythms and those found in written forms; functions such as asking questions, expressing oneself, describing objects or experience, and explaining).
2. recognizes the differences between language that is used at home and language that is used at school.

Standard 2:

The student understands the power of language. (LA.D.2.1)

1. understands that word choice can shape ideas, feelings, and actions.
2. identifies and uses repetition, rhyme, and rhythm in oral and written text.
3. recognizes that use of more than one medium increases the power to influence how one thinks and feels.
4. knows the various types of mass media (including billboards, newspapers, radio, and television).

Literature

Standard 1:

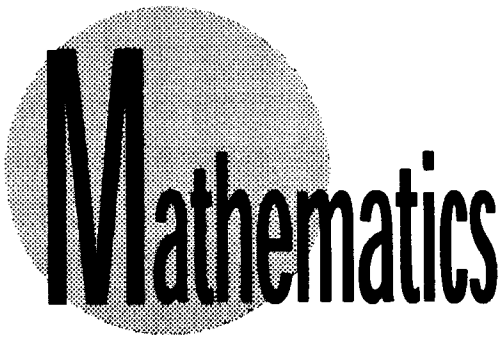
The student understands the common features of a variety of literary forms. (LA.E.1.1)

1. knows the basic characteristics of fables, stories, and legends.
2. identifies the story elements of setting, plot, character, problem, and solution/resolution.

Standard 2:

The student responds critically to fiction, nonfiction, poetry, and drama. (LA.E.2.1)

1. uses personal perspective in responding to a work of literature, such as relating characters and simple events in a story or biography to people or events in his or her own life.
2. recognizes rhymes, rhythm, and patterned structures in children's texts.



Number Sense, Concepts, and Operations

Standard 1:

The student understands the different ways numbers are represented and used in the real world. (MA.A.1.1)

1. associates verbal names, written word names, and standard numerals with the whole numbers less than 1000.
2. understands the relative size of whole numbers between 0 and 1000.
3. uses objects to represent whole numbers or commonly used fractions and relates these numbers to real-world situations.
4. understands that whole numbers can be represented in a variety of equivalent forms.

Standard 2:

The student understands number systems. (MA.A.2.1)

1. understands and applies the concepts of counting (by 2s, 3s, 5s, 10s, 25s, 50s), grouping, and place value with whole numbers between 0 and 100.
2. uses number patterns and the relationships among counting, grouping, and place value strategies to demonstrate an understanding of the whole number system.

Standard 3:

The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving. (MA.A.3.1)

1. understands and explains the effects of addition and subtraction on whole numbers, including the inverse (opposite) relationship of the two operations.
2. selects the appropriate operation to solve specific problems involving addition and subtraction of whole numbers.
3. adds and subtracts whole numbers to solve real-world problems using appropriate methods of computing, such as objects, mental mathematics, paper and pencil, calculator.

Standard 4:

The student uses estimation in problem solving and computation. (MA.A.4.1)

1. provides and justifies estimates for real-world quantities.

Standard 5:

The student understands and applies theories related to numbers. (MA.A.5.1)

1. classifies and models numbers as even or odd.

Measurement

Standard 1:

The student measures quantities in the real world and uses the measures to solve problems. (MA.B.1.1)

1. uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.
2. uses standard customary and metric (centimeter, inch) and nonstandard units, such as links or blocks, in measuring real quantities.

Standard 2:

The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary). (MA.B.2.1)

1. uses direct (measured) and indirect (not measured) comparisons to order objects according to some measurable characteristics (length, weight).
2. understands the need for a uniform unit of measure to communicate in real-world situations.

Standard 3:

The student estimates measurements in real-world problem situations. (MA.B.3.1)

1. using a variety of strategies, estimates lengths, widths, time intervals, and money and compares them to actual measurements.

Standard 4:

The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations. (MA.B.4.1)

1. selects and uses an object to serve as a unit of measure, such as a paper clip, eraser, or marble.
2. selects and uses appropriate instruments, such as scales, rulers, clocks, and technology to measure within customary or metric systems .

Geometry and Spatial Sense

Standard 1:

The student describes, draws, identifies, and analyzes two- and three-dimensional shapes. (MA.C.1.1)

1. understands and describes the characteristics of basic two- and three-dimensional shapes.

Standard 2:

The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed. (MA.C.2.1)

1. understands basic concepts of spatial relationships, symmetry, and reflections.
2. uses objects to perform geometric transformations, including flips, slides, and turns.

Standard 3:

The student uses coordinate geometry to locate objects in both two- and three-dimensions and to describe objects algebraically. (MA.C.3.1)

1. uses real-life experiences and physical materials to describe, classify, compare, and sort geometric figures, including squares, rectangles, triangles, circles, cubes, rectangular solids, spheres, pyramids, cylinders, and prisms, according to the number of faces, edges, bases, and corners.

2. plots and identifies positive whole numbers on a number line.

Algebraic Thinking

Standard 1:

The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions. (MA.D.1.1)

1. describes a wide variety of classification schemes and patterns related to physical characteristics and sensory attributes, such as rhythm, sound, shapes, colors, numbers, similar objects, similar events.
2. recognizes, extends, generalizes, and creates a wide variety of patterns and relationships using symbols and objects.

Standard 2:

The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations. (MA.D.2.1)

1. understands that geometric symbols (●, ■, ▲) can be used to represent unknown quantities in expressions, equations, and inequalities.
2. uses informal methods to solve real-world problems requiring simple equations that contain one variable.

Data Analysis and Probability

Standard 1:

The student understands and uses the tools of data-analysis for managing information. (MA.E.1.1)

1. displays solutions to problems by generating, collecting, organizing, and analyzing data using simple graphs and charts.
2. displays data in a simple model to use the concepts of range, median, and mode.
3. analyzes real-world data by surveying a sample space and predicting the generalization onto a larger population through the use of appropriate technology, including calculators and computers.

Standard 2:

The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. (MA.E.2.1)

1. understands basic concepts of chance and probability.
2. predicts which simple event is more likely, equally likely, or less likely to occur.

Standard 3:

The student uses statistical methods to make inferences and valid arguments about real-world situations. (MA.E.3.1)

1. designs a simple experiment to answer a class question, collects appropriate information, and interprets the results using graphical displays of information, such as line graphs, pictographs, and charts.
2. decides what information is appropriate and how data can be collected, displayed, and interpreted to answer relevant questions.

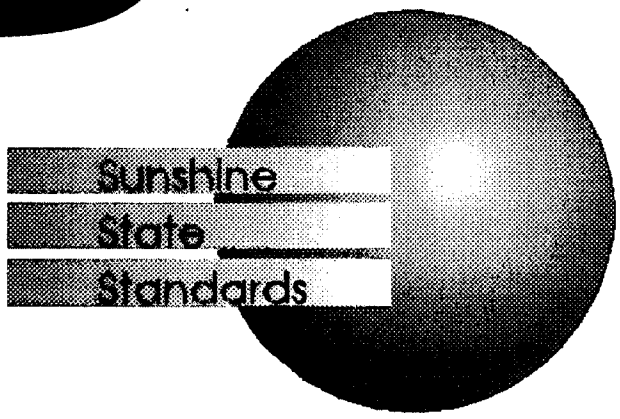
The Nature of Matter

Standard 1:

The student understands that all matter has observable, measurable properties. (SC.A.1.1)

1. knows that objects can be described, classified, and compared by their composition (e.g., wood or metal) and their physical properties (e.g., color, size, and shape).
2. recognizes that the same material can exist in different states.
3. verifies that things can be done to materials to change some of their physical properties (e.g., cutting, heating, and freezing), but not all materials respond the same way (e.g., heating causes water to boil and sugar to melt).

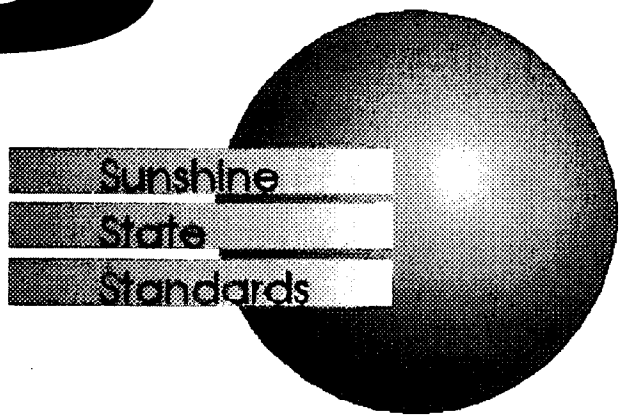
Grades 3-5



FLORIDA
Department
of Education

Table of Contents

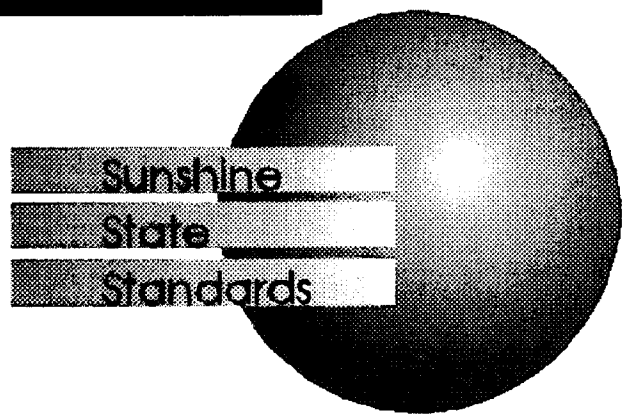
Grades 6-8



FLORIDA
Department
of Education

Table of Contents

Grades 9-12



FLORIDA
Department
of Education

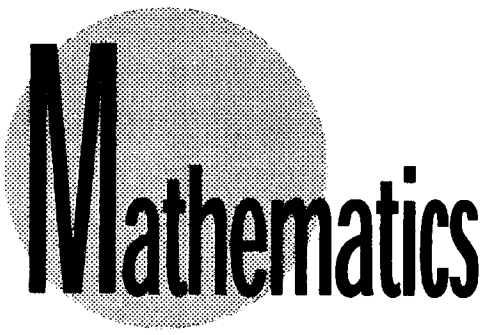
Table of Contents

4. understands the characteristics of major types of drama.
5. understands the different stylistic, thematic, and technical qualities present in the literature of different cultures and historical periods.

Standard 2:

The student responds critically to fiction, nonfiction, poetry, and drama. (LA.E.2.4)

1. analyzes the effectiveness of complex elements of plot, such as setting, major events, problems, conflicts, and resolutions.
2. understands the relationships between and among elements of literature, including characters, plot, setting, tone, point of view, and theme.
3. analyzes poetry for the ways in which poets inspire the reader to share emotions, such as the use of imagery, personification, and figures of speech, including simile and metaphor; and the use of sound, such as rhyme, rhythm, repetition, and alliteration.
4. understands the use of images and sounds to elicit the reader's emotions in both fiction and nonfiction.
5. analyzes the relationships among author's style, literary form, and intended impact on the reader.
6. recognizes and explains those elements in texts that prompt a personal response, such as connections between one's own life and the characters, events, motives, and causes of conflict in texts.
7. examines a literary selection from several critical perspectives.
8. knows that people respond differently to texts based on their background knowledge, purpose, and point of view.



Number Sense, Concepts, and Operations

Standard 1:

The student understands the different ways numbers are represented and used in the real world. (MA.A.1.4)

1. associates verbal names, written word names, and standard numerals with integers, rational numbers, irrational numbers, real numbers, and complex numbers.
2. understands the relative size of integers, rational numbers, irrational numbers, and real numbers.
3. understands concrete and symbolic representations of real and complex numbers in real-world situations.
4. understands that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, scientific notation, exponents, radicals, absolute value, and logarithms.

Standard 2:

The student understands number systems. (MA.A.2.4)

1. understands and uses the basic concepts of limits and infinity.
2. understands and uses the real number system.
3. understands the structure of the complex number system.

Standard 3:

The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving. (MA.A.3.4)

1. understands and explains the effects of addition, subtraction, multiplication, and division on real numbers, including square roots, exponents, and appropriate inverse relationships.
2. selects and justifies alternative strategies, such as using properties of numbers, including inverse, identity, distributive, associative, transitive, that allow operational shortcuts for computational procedures in real-world or mathematical problems.
3. adds, subtracts, multiplies, and divides real numbers, including square roots and exponents, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

Standard 4:

The student uses estimation in problem solving and computation. (MA.A.4.4)

1. uses estimation strategies in complex situations to predict results and to check the reasonableness of results.

Standard 5:

The student understands and applies theories related to numbers. (MA.A.5.4)

1. applies special number relationships such as sequences and series to real-world problems.

Measurement

Standard 1:

The student measures quantities in the real world and uses the measures to solve problems. (MA.B.1.4)

1. uses concrete and graphic models to derive formulas for finding perimeter, area, surface area, circumference, and volume of two- and three-dimensional shapes, including rectangular solids, cylinders, cones, and pyramids.
2. uses concrete and graphic models to derive formulas for finding rate, distance, time, angle measures, and arc lengths.
3. relates the concepts of measurement to similarity and proportionality in real-world situations.

Standard 2:

The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary). (MA.B.2.4)

1. selects and uses direct (measured) or indirect (not measured) methods of measurement as appropriate.
2. solves real-world problems involving rated measures (miles per hour, feet per second).

Standard 3:

The student estimates measurements in real-world problem situations. (MA.B.3.4)

1. solves real-world and mathematical problems involving estimates of measurements, including length, time, weight/mass, temperature, money, perimeter, area, and volume, and estimates the effects of measurement errors on calculations.

Standard 4:

The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations. (MA.B.4.4)

1. determines the level of accuracy and precision, including absolute and relative errors or tolerance, required in real-world measurement situations.
2. selects and uses appropriate instruments, technology, and techniques to measure quantities in order to achieve specified degrees of accuracy in a problem situation.

Geometry and Spatial Sense

Standard 1:

The student describes, draws, identifies, and analyzes two- and three-dimensional shapes. (MA.C.1.4)

1. uses properties and relationships of geometric shapes to construct formal and informal proofs.

Standard 2:

The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed. (MA.C.2.4)

1. understands geometric concepts such as perpendicularity, parallelism, tangency, congruency, similarity, reflections, symmetry, and transformations including flips, slides, turns, enlargements, rotations, and fractals.
2. analyzes and applies geometric relationships involving planar cross-sections (the intersection of a plane and a three-dimensional figure).

Standard 3:

The student uses coordinate geometry to locate objects in both two and three dimensions and to describe objects algebraically. (MA.C.3.4)

1. represents and applies geometric properties and relationships to solve real-world and mathematical problems including ratio, proportion, and properties of right triangle trigonometry.
2. using a rectangular coordinate system (graph), applies and algebraically verifies properties of two- and three-dimensional figures, including distance, midpoint, slope, parallelism, and perpendicularity.

Algebraic Thinking

Standard 1:

The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions. (MA.D.1.4)

1. describes, analyzes, and generalizes relationships, patterns, and functions using words, symbols, variables, tables, and graphs.
2. determines the impact when changing parameters of given functions.

Standard 2:

The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations. (MA.D.2.4)

1. represents real-world problem situations using finite graphs, matrices, sequences, series, and recursive relations.
2. uses systems of equations and inequalities to solve real-world problems graphically, algebraically, and with matrices.

Data Analysis and Probability

Standard 1:

The student understands and uses the tools of data analysis for managing information. (MA.E.1.4)

1. interprets data that has been collected, organized, and displayed in charts, tables, and plots.
2. calculates measures of central tendency (mean, median, and mode) and dispersion (range, standard deviation, and variance) for complex sets of data and determines the most meaningful measure to describe the data.
3. analyzes real-world data and makes predictions of larger populations by applying formulas to calculate measures of central tendency and dispersion using the sample population data, and using appropriate technology, including calculators and computers.

Standard 2:

The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. (MA.E.2.4)

1. determines probabilities using counting procedures, tables, tree diagrams, and formulas for permutations and combinations.
2. determines the probability for simple and compound events as well as independent and dependent events.

Standard 3:

The student uses statistical methods to make inferences and valid arguments about real-world situations. (MA.E.3.4)

1. designs and performs real-world statistical experiments that involve more than one variable, then analyzes results and reports findings.
2. explains the limitations of using statistical techniques and data in making inferences and valid arguments.

The Nature of Matter

Standard 1:

The student understands that all matter has observable, measurable properties. (SC.A.1.4)

1. knows that the electron configuration in atoms determines how a substance reacts and how much energy is involved in its reactions.
2. knows that the vast diversity of the properties of materials is primarily due to variations in the forces that hold molecules together.
3. knows that a change from one phase of matter to another involves a gain or loss of energy.
4. experiments and determines that the rates of reaction among atoms and molecules depend on the concentration, pressure, and temperature of the reactants and the presence or absence of catalysts.
5. knows that connections (bonds) form between substances when outer-shell electrons are either transferred or shared between their atoms, changing the properties of substances.

Standard 2:

The student understands the basic principles of atomic theory. (SC.A.2.4)

1. knows that the number and configuration of electrons will equal the number of protons in an electrically neutral atom and when an atom gains or loses electrons, the charge is unbalanced.
2. knows the difference between an element, a molecule, and a compound.
3. knows that a number of elements have heavier, unstable nuclei that decay, spontaneously giving off smaller particles and waves that result in a small loss of mass and release a large amount of energy.
4. knows that nuclear energy is released when small, light atoms are fused into heavier ones.
5. knows that elements are arranged into groups and families based on similarities in electron structure and that their physical and chemical properties can be predicted.