Curriculum Alignment Conference

UCF Orlando Campus
February 21, 2013

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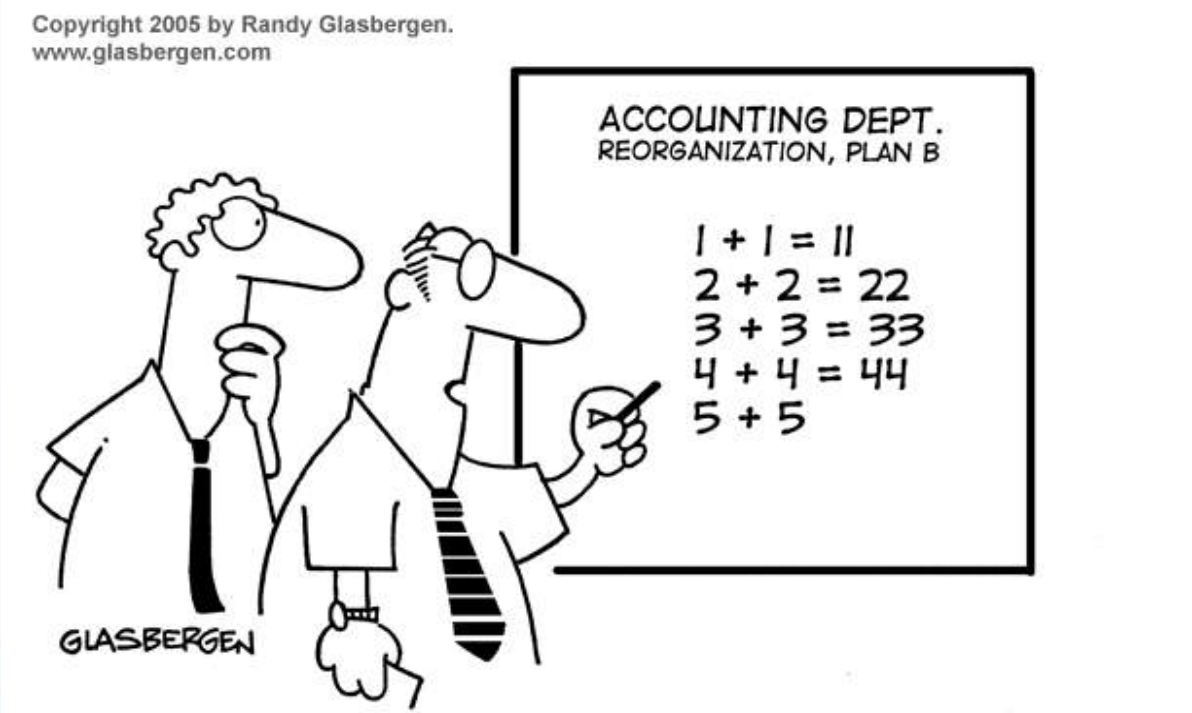
Bureau of Curriculum and Instruction
Florida Department of Education

Topics

- Florida‘s State Board of Education Strategic Plan
  - *College and Career Ready*
  - *Graduation Requirements*
- Student Achievement
  - *Statewide Assessment Requirement*
- Florida Course Descriptions
  - *CPALMS*
- Common Core State Standards for Mathematics
- Next Generation Science Standards
- Resources

Florida's State Board of Education Strategic Plan - 2012-2018



"For years, we've been playing by old rules and the results have been dismal. It's time for a bold new direction!"

A Roadmap for Education in Florida

http://www.fldoe.org/strategic_plan/

Florida's State Board of Education Strategic Plan 2012-2018

Mission

Section 1008.31, Florida Statute, establishes the mission of Florida's education delivery system.

*The mission of Florida's K-20 education system is **to increase the proficiency of all students** within one seamless, efficient system, by allowing them the opportunity to expand their knowledge and skills through learning opportunities and research valued by students, parents, and communities.*

Vision

To achieve the mission established in statute for Florida's education delivery system, the State Board of Education presents the following vision statement.

*Florida will have an efficient world-class education system that **engages and prepares all students to be globally competitive for college and careers.***

Florida's State Board of Education Strategic Plan 2012-2018

Strategic Goals

Section 1008.31, Florida Statute, establishes four goals for Florida's education system. Each of these goals will be measured through the accountability system and progress will be documented through the performance indicators included in the Strategic Plan.

1. *Highest Student Achievement*
2. *Seamless Articulation and Maximum Access*
3. *Skilled Workforce and Economic Development*
4. *Quality Efficient Services*

	Statutory Goals (1008.31)		
	Goal 1: Highest Student Achievement	**Goal 2: Seamless Articulation/ Maximum Access**	**Goal 3: Skilled Workforce/ Economic Development**
PreK Students	• Improve kindergarten readiness		
K-12 Students	• Increase the percentage of students performing at grade level	• Increase high school graduation rates	• Expand STEM-related educational opportunities in high-demand areas
	• Increase student participation and performance in accelerated course options	• Improve college readiness	• Increase career and technical education opportunities
		• Expand digital education	• Improve adult education programs in school districts
Teachers & Leaders	• Increase the percentage of effective and highly-effective principals	• Increase the percentage of effective and highly-effective teachers at high-minority, high-poverty and low-performing schools	
	• Increase the percentage of effective and highly-effective teachers	• Reduce the number of out-of-field teachers at high-minority, high-poverty and low-performing schools	
	• Reduce the number of out-of-field teachers		
School Choice	• Increase the percentage of charter school students performing at grade level	• Expand choice options for students	
	• Improve charter school performance		
	• Ensure Supplemental Educational Service providers are high performing		
Postsecondary Students	• Increase college readiness and success	• Expand and maintain student access	• Prepare students for careers

BUREAU OF CURRICULUM AND INSTRUCTION GOALS

1. Increase the percentage of students who are College and Career ready upon graduation.

2. Increase the percentage of students who are performing at or above proficiency in all content areas and for all subgroups.

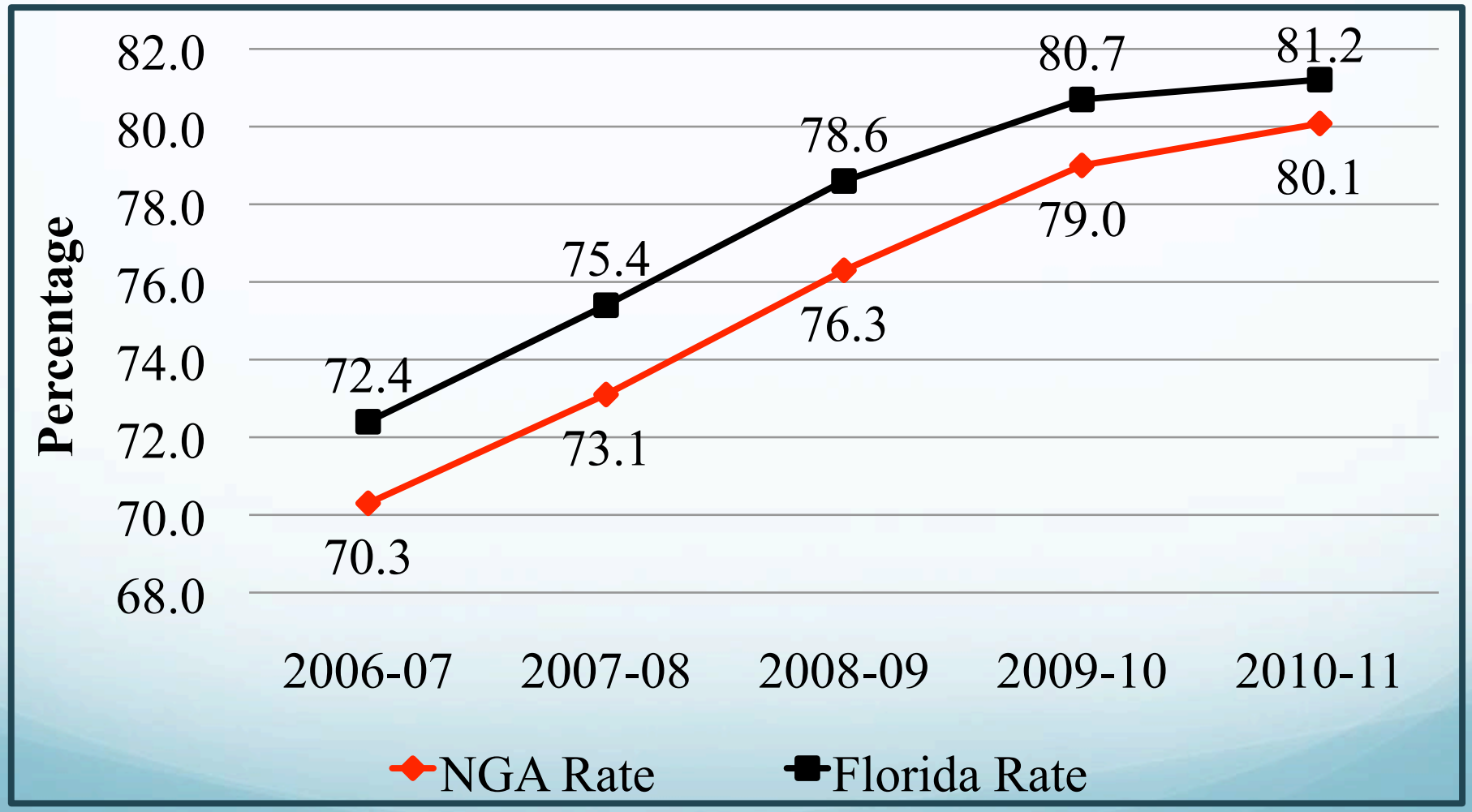
3. Decrease achievement gaps for African American and Hispanic students.

BCI Goal 2
College and Career Readiness

FLDOE
Pathways to Success
http://www.fldoe.org/aala/pdf/pathwaystosuccessbrochure-english.pdf

- *Students are college and career ready when they have the knowledge, skills, and academic preparation needed to enroll and succeed in introductory college credit-bearing courses within an associate- or bachelor-level degree program without the need for remedial courses.*
- *Students need these same attributes and levels of achievement to enter and succeed in postsecondary workforce education programs or to obtain a job that offers a living wage and the chance for career advancement.*

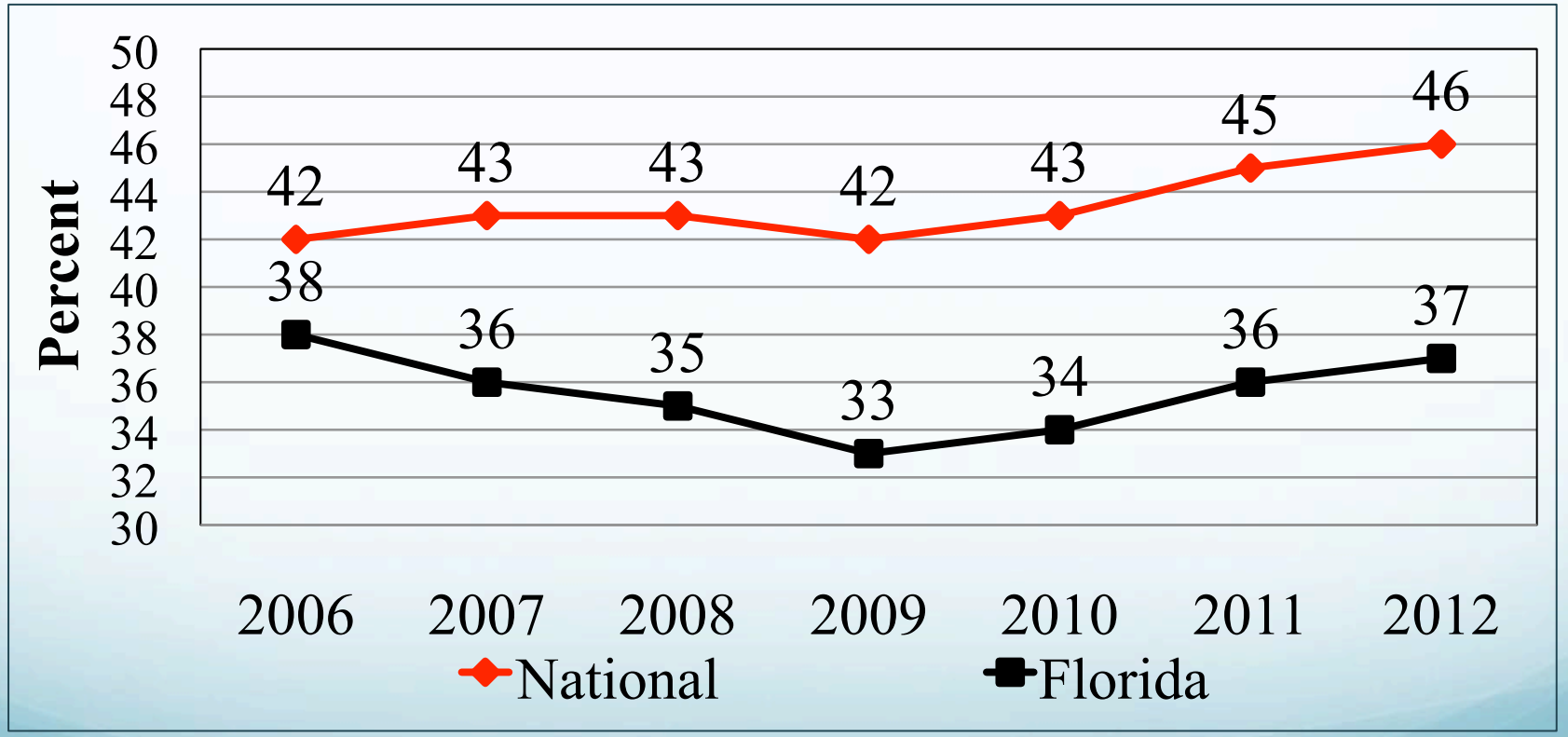
Graduation Rates



http://ritter.tea.state.tx.us/research/pdfs/NGA_compact_rate_policy_brief.pdf

College Readiness

Percent of ACT-Tested High School Graduates Meeting ACT College Readiness Mathematics Benchmark, 2006–2012



Slightly higher percentages of Florida students met the Mathematics Benchmark (22) in 2012 than in 2011.

SAT®
Florida SAT Scores

Year	National Average SAT Scores	Florida Average SAT Score
2012	514	490
2011	514	486
2010	515	472
2009	515	498
2008	515	497
2007	515	496
2006	518	497
2005	520	498

- Florida's average score in mathematics was 490 in 2012
- The national average is 514
- SAT Uses the 200-800 point scale

September 24, 2012
http://www.fldoe.org/news/2012/2012_09_24-3.asp

BCI Strategies for Goal 1

- *Provide technical assistance to school districts in the development and implementation of aligned K-12 research-based mathematics and curriculum programs.*
- *Fully implement with fidelity the Common Core State Standards for Mathematics (CCSS-M)/Next Generation Sunshine State Standards (NGSSS).*
- *Align curriculum to maximize student learning, so that concepts are progressive and deeper.*
- *Review, update, and/or revise course descriptions using the CCSSM/ NGSSS.*
- *Target lowest performing districts and provide additional resources, training, and support.*
- *Provide teachers with effective training and resources that results in deeper understanding of content knowledge.*

2013–2014 9th Grade Cohort

24-credit option

- English – 4 credits with major concentration in composition and literature
- **Mathematics – 4 credits**
- **Science – 3 credits**
- Social Studies – 3 credits
- Visual and Performing Arts, Speech & Debate, or Practical Arts – 1 credit
- Physical Education – 1 credit to include the integration of health
- Electives – 8 credits

2013–2014 9th Grade Cohort

24-credit and 3-year, 18 credit options

- **Mathematics – 4 credits to include**
  - *Algebra 1 (must pass EOC for credit) – 1 credit*
  - *Geometry (must pass EOC for credit) – 1 credit*
  - *Algebra 2 – 1 credit*

- **Science – 3 credits to include**
  - *Biology 1 (must pass EOC for credit)*
  - *Chemistry or Physics – 1 credit*
  - *Equally rigorous science course – 1 credit*

Equivalent and Equally Rigorous Courses

- 2013-2014 Florida Course Code Directory includes the identification of:
  - ***Equivalent*** mathematics and science courses
  - ***Equally rigorous*** science courses

DPS: 2013-02 Memorandum February 1, 2013
http://info.fldoe.org/docushare/dsweb/Get/Document-6615/dps201302.pdf

List of Equivalent Mathematics and Science Courses and Equally Rigorous Science Courses

State Graduation Requirements

http://www.fldoe.org/bii/studentpro/grad-require.asp

State Graduation Requirements Charts

Florida's state graduation requirements are outlined in the following charts:

- Students Entering Ninth Grade - 2010-2011 School Year (PDF, 60KB)
- Students Entering Ninth Grade - 2011-2012 School Year (PDF, 64KB)
- Students Entering Ninth Grade - 2012-2013 School Year (PDF, 118KB)
- Students Entering Ninth Grade - 2013-2014 School Year (PDF, 130KB)

Effective for all students in the 2012-2013 school year and thereafter, if enrolled in U.S. History or U.S. History Honors the final course grade must include a minimum 30 percent of the U.S. History End-of-Course Assessment.

State Assessments for High School Graduation

Information related to statewide assessment requirements is available in Graduation Requirements for Florida's Statewide Assessments (PDF).

Transfer Students

If a student transfers into a Florida public high school from out of country, out of state, a private school, or a home school, the student's transcript is reviewed to determine if the student is required to take a Florida end-of-course (EOC) assessment in accordance with Rule 6A-1.09941 (Word), Florida Administrative Code (F.A.C.), *State Uniform Transfer of High School Credit.* The High School State Assessments by State (PDF, 193KB) chart provides guidance on statewide standardized mathematics and EOC assessments.

Students with Disabilities

Each school district is responsible for providing services to students who are eligible for exceptional student education (ESE) programs. For additional information on state program contacts, please visit the Bureau of Exceptional Student Education's ESE Programs listing.

The individual educational plan (IEP) team makes the diploma decisions for students with disabilities who are eligible for exceptional student education (ESE). IEP teams should consider diploma options in the following order, according to the student's needs and abilities:

- Standard Diploma
- Special Diploma, Option 1
- Special Diploma, Option 2.

Information related to special diploma options and the transition of a student with disabilities from school to adult life is available in Transition Planning for Students with Disabilities: A Guide for Families.

Florida's Guide to Public High School Graduation

BCI Goal 2
Increase Proficiency Levels

Florida's raising the floor and the ceiling on student learning!

FCAT 2.0 Mathematics

State Percent Scoring Level 1		
Grade Level	2011	2012
3	19	18
4	19	18
5	19	19
6	22	23
7	20	20
8	22	22

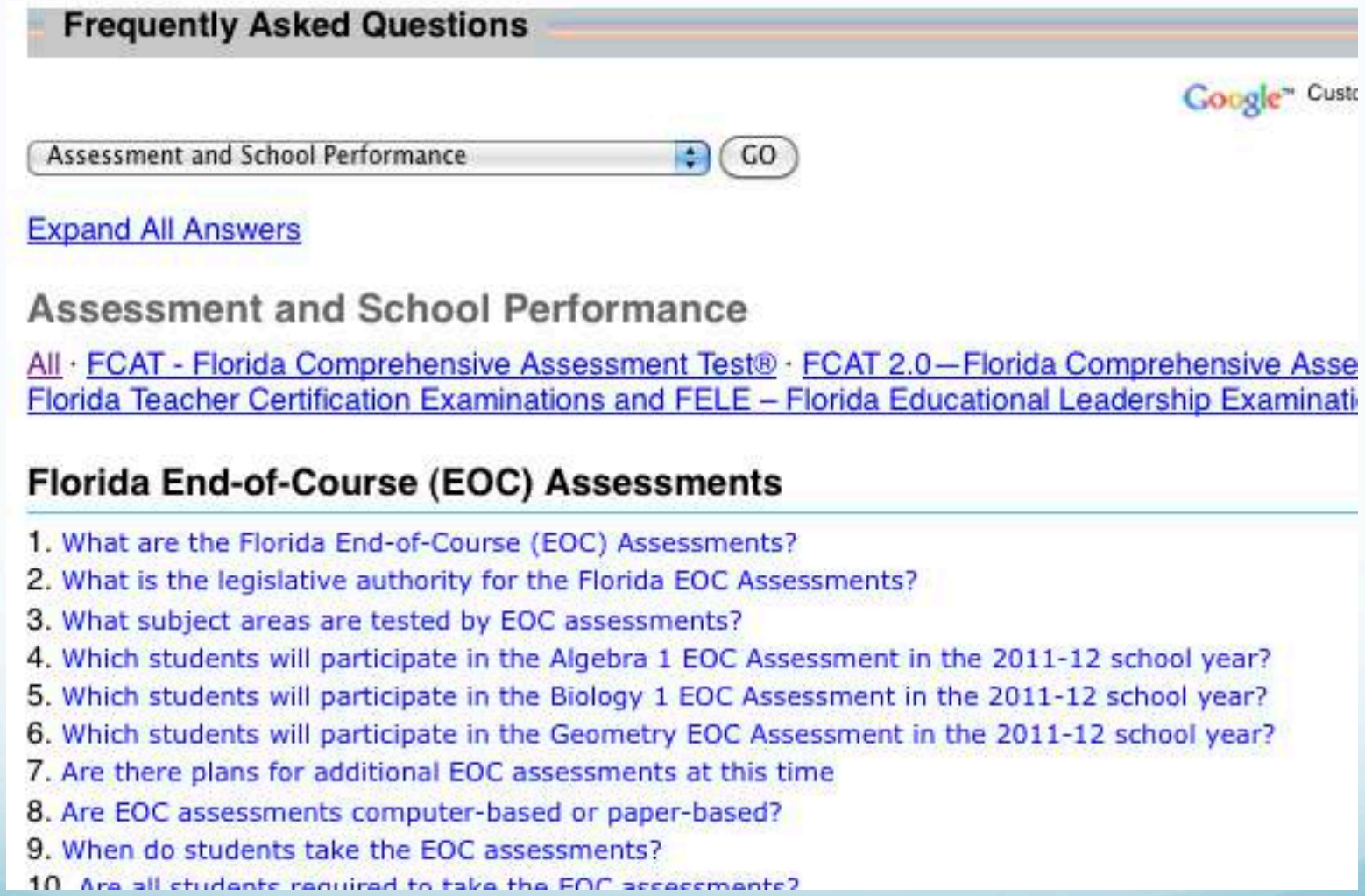
State Percent Scoring Level 3 and Above		
Grade Level	2011	2012
3	56	58
4	58	60
5	56	57
6	53	53
7	56	56
8	56	57

Algebra 1 EOC Statewide Comparison

Percentage Scoring Level 1			
Grade	Summer 2012	Spring 2012	Winter 2011-2012
6	*	2	*
7	5	1	*
8	3	2	2
9	15	19	9
10	33	36	28
11	31	37	33
12	*	35	34

Percentage Scoring 3 or Above			
Grade	Summer 2012	Spring 2012	Winter 2011-2012
6	*	95	*
7	74	94	*
8	81	86	88
9	51	48	71
10	38	25	35
11	44	28	31
12	*	33	33

FAQs related to EOCs



http://www.fldoe.org/faq/default.asp?Dept=179&Cat=125

BCI Strategies for Goal 2

- *Develop and implement training for highly effective mathematics instruction.*
  - *Provide NGSSS/CCSS training opportunities*
  - *Work with other FLDOE Bureaus to enhance mathematics instruction*
    - *BEES, CTE, DA, SALA, RTTT, TDC*
- *Align curriculum to maximize student learning, so that concepts are progressive and deeper.*
- *Include NAEP Standards in Grade 4 and 8 Course Descriptions.*
- *Target lowest performing districts and provide additional resources, training, and support.*
- *Provide high quality resources (lessons, formative assessments, websites) through CPALMS and iCPALMS.*
- *Develop and implement an effective communication system with district coordinators to improve mathematics teaching and learning.*

BCI Goal 3
Decrease Achievement Gaps

Mathematics Assessments by Subgroups Level 3 and Above on FCAT 2.0 – 2011-2012

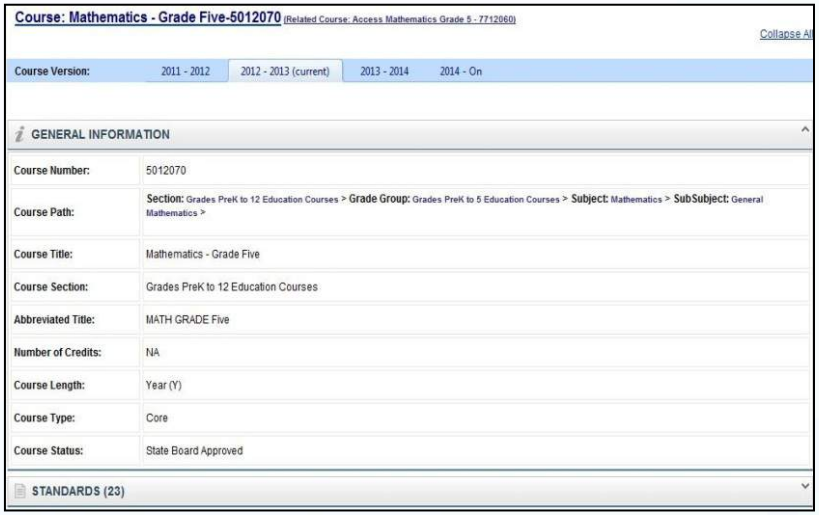
Subgroup	Percentage
American Indian	58
Asian	82
Black/African American	40
Hispanic	55
White	68
Economically Disadvantaged	48
English Language Learners	41
Students with Disabilities	32

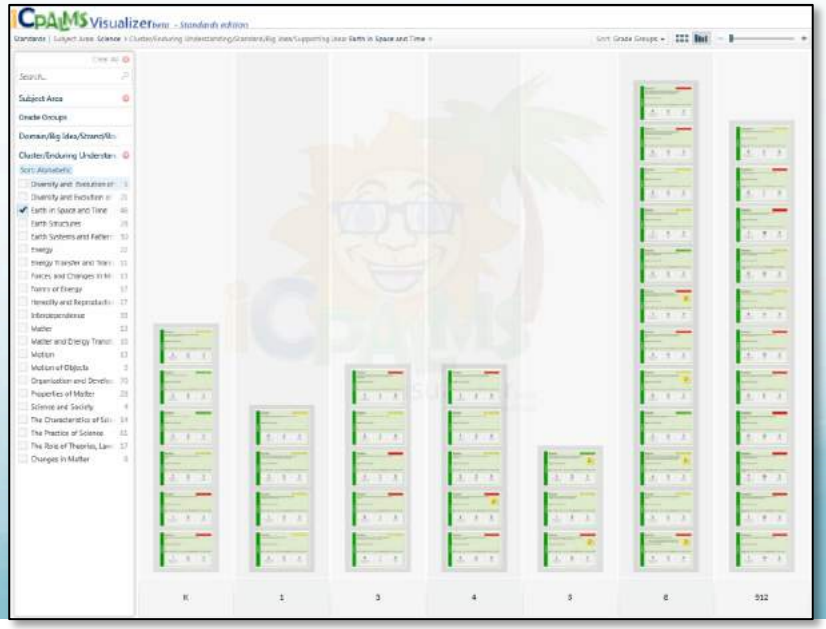
BCI Strategies for Goal 3

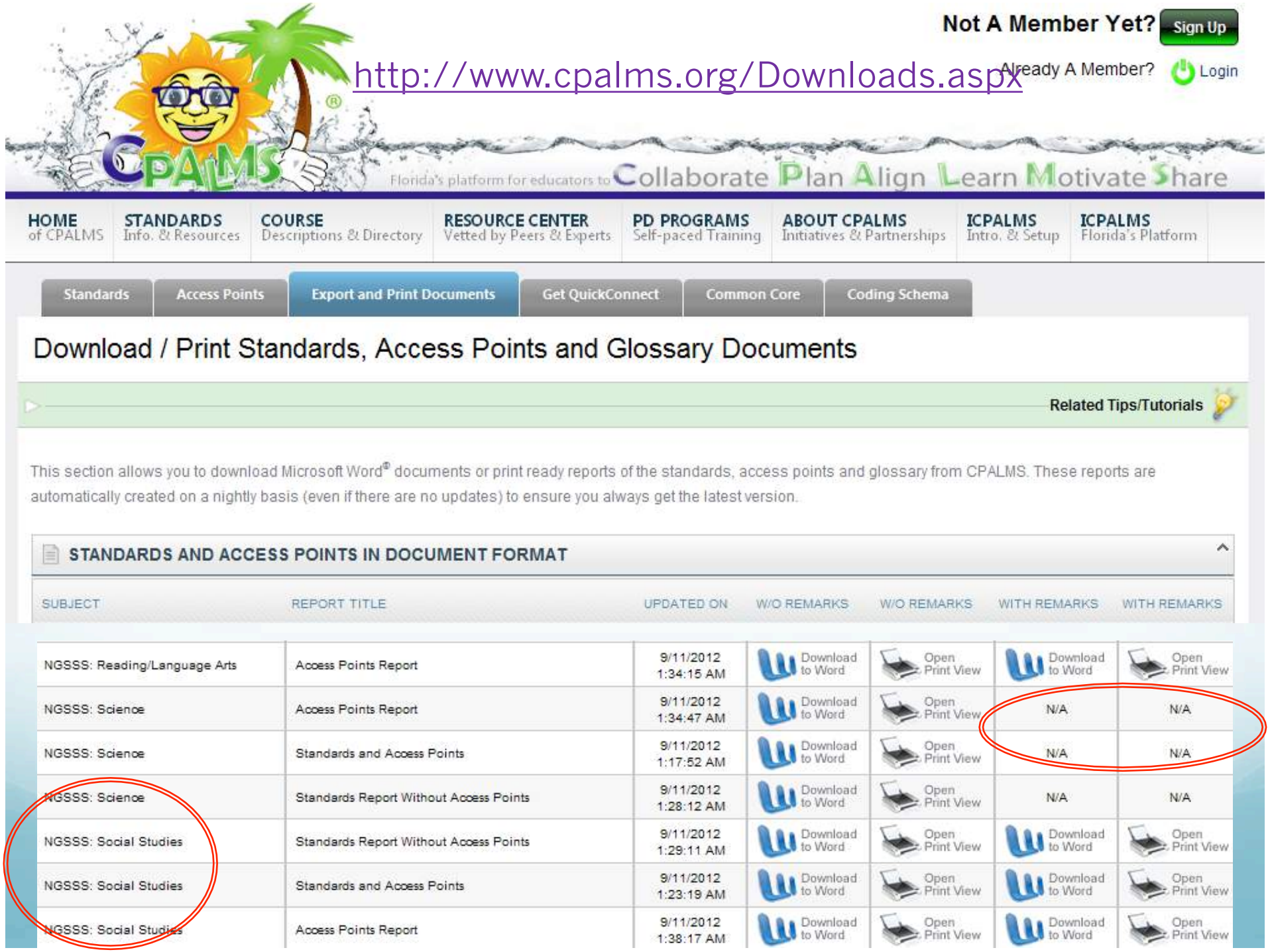
- *Continue collaborative efforts with the Bureau of Exceptional Education and Student Services (BEESS) to develop, promote, and utilize Model Lessons for Mathematics Enhanced by the Problem Solving Process within a Response to Instruction/Intervention (PS-RtI) Framework.*
- *Explore other opportunities to partner with BEESS to promote the implementation of PS-RtI at the classroom level with an emphasis on responding to individual student needs and fidelity of implementation.*
- *Identify strategies and/or methods used by teachers throughout the state who teach students with consistently high annual learning gains and explore the possibility of sharing these ideas with others.*
- *Identify quality model lessons that include differentiated instruction and align to the Common Core State Standards for Mathematics and submit these lessons as resources to be added to the standards database.*
- *Explore opportunities to partner with the Bureau of Student Achievement through Language Acquisition to provide additional support and guidance to district curriculum specialists and teachers on increasing student achievement for English Language Learners.*

Course Descriptions

- CPALMS
  - www.cpalms.org
  - Hundreds of Common Core mathematics resources
  - Progression Maps
  - Visualizers



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SUBJECT
REPORT TITLE
UPDATED ON
W/O REMARKS
W/O REMARKS
WITH REMARKS
WITH REMARKS
NGSSS: Reading/Language Arts
Access Points Report
9/11/2012 1:34:15 AM
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NGSSS: Social Studies
Access Points Report
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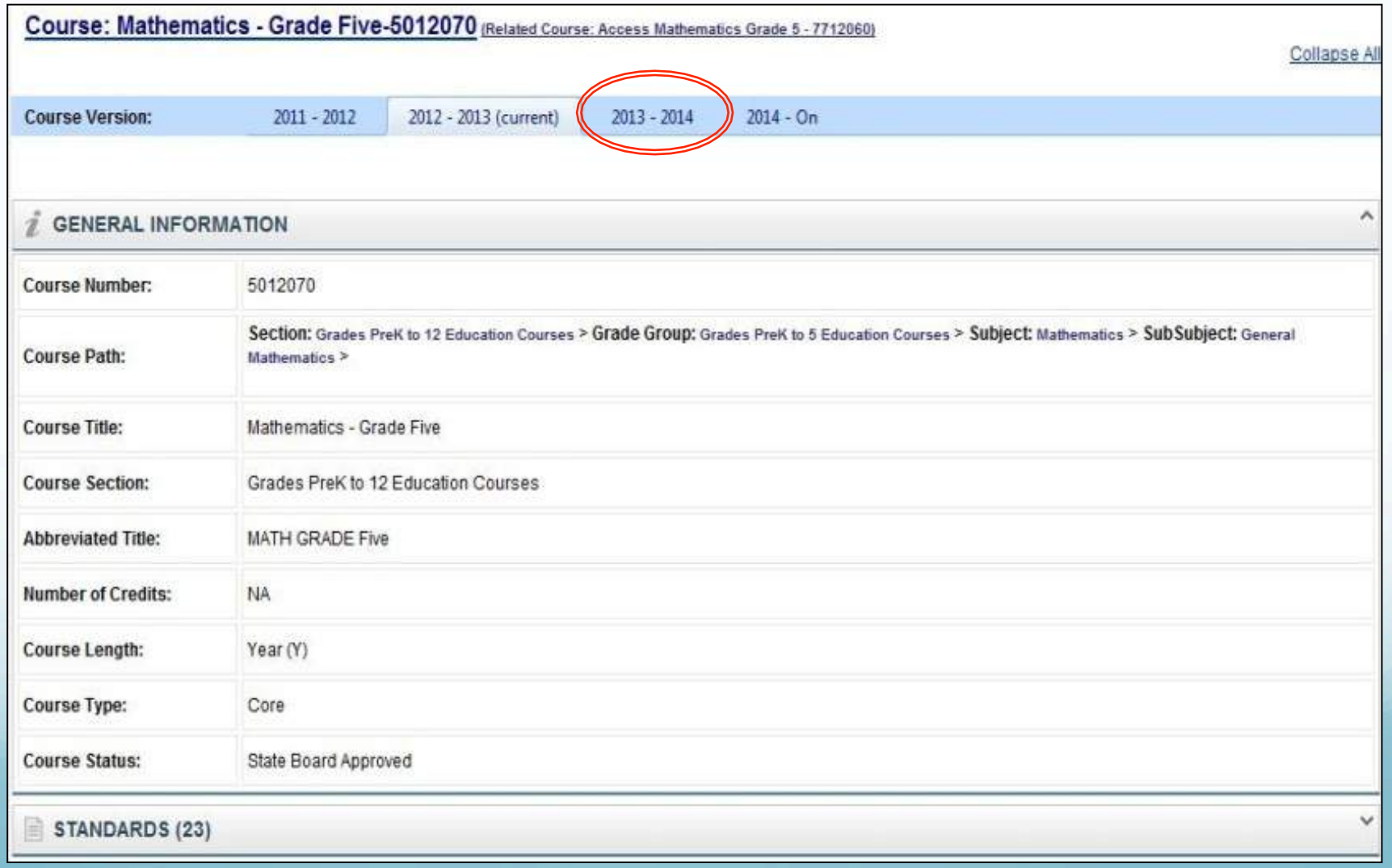
Course Descriptions



Course: Mathematics - Grade Five-5012070 (Related Course: Access Mathematics Grade 5 - 7712060)

Collapse All

Course Version:	2011 - 2012	2012 - 2013 (current)	2013 - 2014	2014 - On

GENERAL INFORMATION

Course Number:	5012070
Course Path:	Section: Grades PreK to 12 Education Courses > Grade Group: Grades PreK to 5 Education Courses > Subject: Mathematics > SubSubject: General Mathematics >
Course Title:	Mathematics - Grade Five
Course Section:	Grades PreK to 12 Education Courses
Abbreviated Title:	MATH GRADE Five
Number of Credits:	NA
Course Length:	Year (Y)
Course Type:	Core
Course Status:	State Board Approved

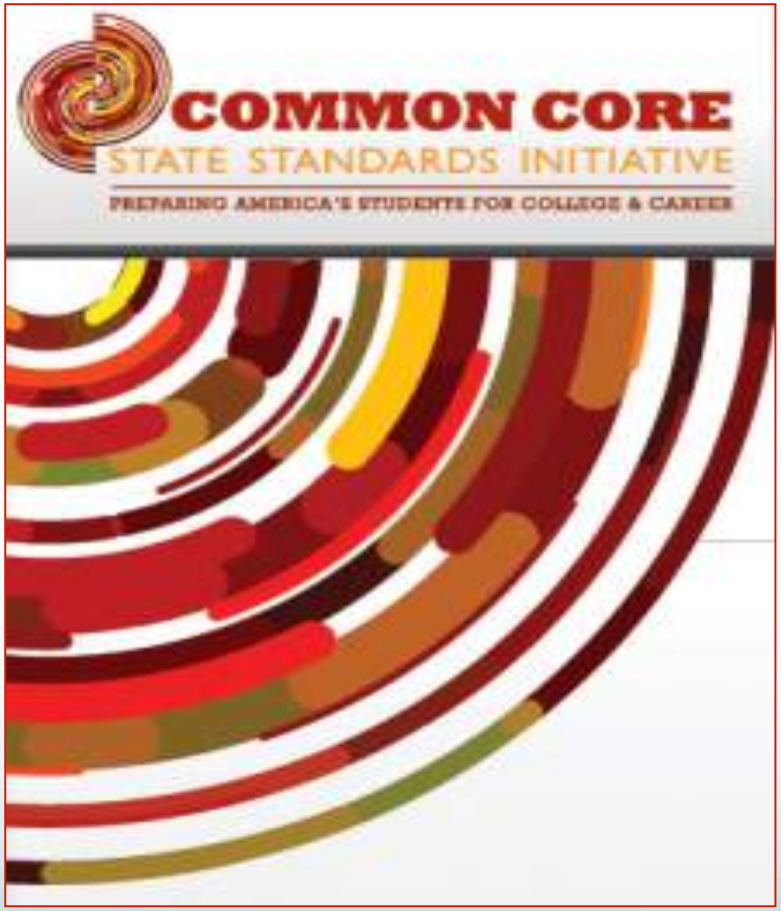
STANDARDS (23)

Course Descriptions

Algebra and Geometry Courses include:

Standards	Unit	Description	Idea/ Standard/ Cluster	Clarifying Remarks
MACC. 912.N-Q. 1.1	Unit 1 – Relationships Between Quantities and Reasoning with Equations	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	Reason quantitatively and use units to solve problems.	Foundation for work with expressions, equations, and functions.

Common Core State Standards for Mathematics



http://www.corestandards.org/Math

Common Core State Standards for Mathematics

Standards for Mathematical Practice

- *Across all grades levels*
- *Describes habits of mind of a mathematically expert students*
- *These standards should be woven into instruction on a daily basis*

Standards for Mathematical Content

- *Presented by grade level in K-8 and High School*
- *Organized into domains that progress over several grades*
- *Give 2-4 focal points at each grade level*
- *Presented by conceptual themes in high school*

Common Core State Standards for Mathematics

Domains *are larger groups of related standards. Standards from different domains may sometimes be closely related*

Clusters *are groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject.*

Standards *define what students should understand and be able to do.*

Conceptual Categories *portray a coherent view of high school mathematics. The categories include: Number and Quantity (N); Algebra (A); Functions (F); Modeling (*); Geometry (G); Statistics and Probability (S).*

Critical Areas *are the big ideas of school mathematics at each grade level. More learning time should be devoted to the critical areas than to other content. The critical areas are designed to bring focus to the standards*

Domains

K	1	2	3	4	5	6	7	8	HS
Counting and Cardinality (CC)									Number and Quantity
Number and Operations in Base Ten (NBT)						The Number System			
			Number and Operations- Fractions (NF)			Ratios and Proportional Relationships (RP)			
Operations and Algebraic Thinking (OA)								Functions (F)	
						Expressions and Equations (EE)			Algebra (A)
Geometry (G)									
Measurement and Data (MD)									
						Statistics and Probability (SP)			

Florida's Numbering of the Common Core State Standards

MACC.6.RP.1.1

Subject Grade Domain Cluster Standard

MACC.912.N-RN.2.3

Subject Grade Category Domain Cluster Standard

Shifts in Instruction

MATHEMATICS

1. Focus
2. Coherence
3. Fluency
4. Deep Understanding
5. Applications
6. Dual Intensity

Shift #1: Focus

Dig deeper, linger, where the standards focus

What the Student Does	What the Teacher Does
• Spend more time on fewer concepts.	• Excise content from the curriculum • Focus instructional time on priority concepts • Give students the gift of time

#1: Focus

Grade	**Priorities in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding**
K–2	Addition and subtraction, measurement using whole number quantities
3–5	Multiplication and division of whole numbers and fractions
6	Ratios and proportional reasoning; early expressions and equations
7	Ratios and proportional reasoning; arithmetic of rational numbers
8	Linear algebra

Shift #2: Coherence

Consider cross grade issues and link to major topics in each grade

What the Student Does…	What the Teacher Does…
• Build on knowledge from year to year, in a coherent learning progression	• Connect the threads of math focus areas across grade levels • Connect to the way content was taught the year before and the years after • Focus on priority progressions

Shift #3: Fluency

What the Student Does…	What the Teacher Does…
• Spend time practicing, with intensity, skills (in high volume)	• Push students to know basic skills at a greater level of fluency • Focus on the listed fluencies by grade level • Uses high quality problem sets, in high volume

Key Fluencies

Grade	Standard	Key Fluency
K	MACC.K.OA.1.5	Add/subtract within 5
1	MACC.1.OA.3.6	Add/subtract within 10
2	MACC.2.OA.2.2 MACC.2.NBT.2.5	Add/subtract within 20 Add/subtract within 100 (pencil and paper)
3	MACC.3.NBT.1.2 MACC.3.OA.3.7	Add/subtract within 1,000 Multiply/divide within 100
4	MACC.4.2.4 Critical Area #1	Add/subtract within 1,000,000 Develop fluency with efficient procedures for multiplying whole numbers
5	MACC.5.NBT.2.5 Critical Area #1	Multi-digit multiplication Developing fluency with addition and subtraction of fractions
6	MACC.6.NS.2.2 MACC.6.NS.2.3	Multi-digit division Multi-digit decimal operations
7	MACC.7.EE.2.4a	Solve $px + q = r$, $p(x + q) = r$
8	MACC.8.EE.3.8b	Solve simple 2×2 systems by inspection

Shift #4: Deep Understanding

For major topics, it's conceptual understanding, procedural skill and fluency and doing mathematics in context

What the Student Does…	What the Teacher Does…
• Show mastery of material at a deep level • Articulate mathematical reasoning • Demonstrate deep conceptual understanding of priority concepts	• Create opportunities for students to understand the "answer" from a variety of access points • Ensure that EVERY student GETS IT before moving on • Get smarter in concepts being taught

Shift #5: Application

Focus on using math and solving complex problems, similar to what would see in the real world in high school

What the Student Does…	What the Teacher Does…
• Apply math in other content areas and situations, as relevant • Choose the right math concept to solve a problem when not necessarily prompted to do so	• Apply math including areas where its not directly required (i.e. in science) • Provide students with real world experiences and opportunities to apply what they have learned

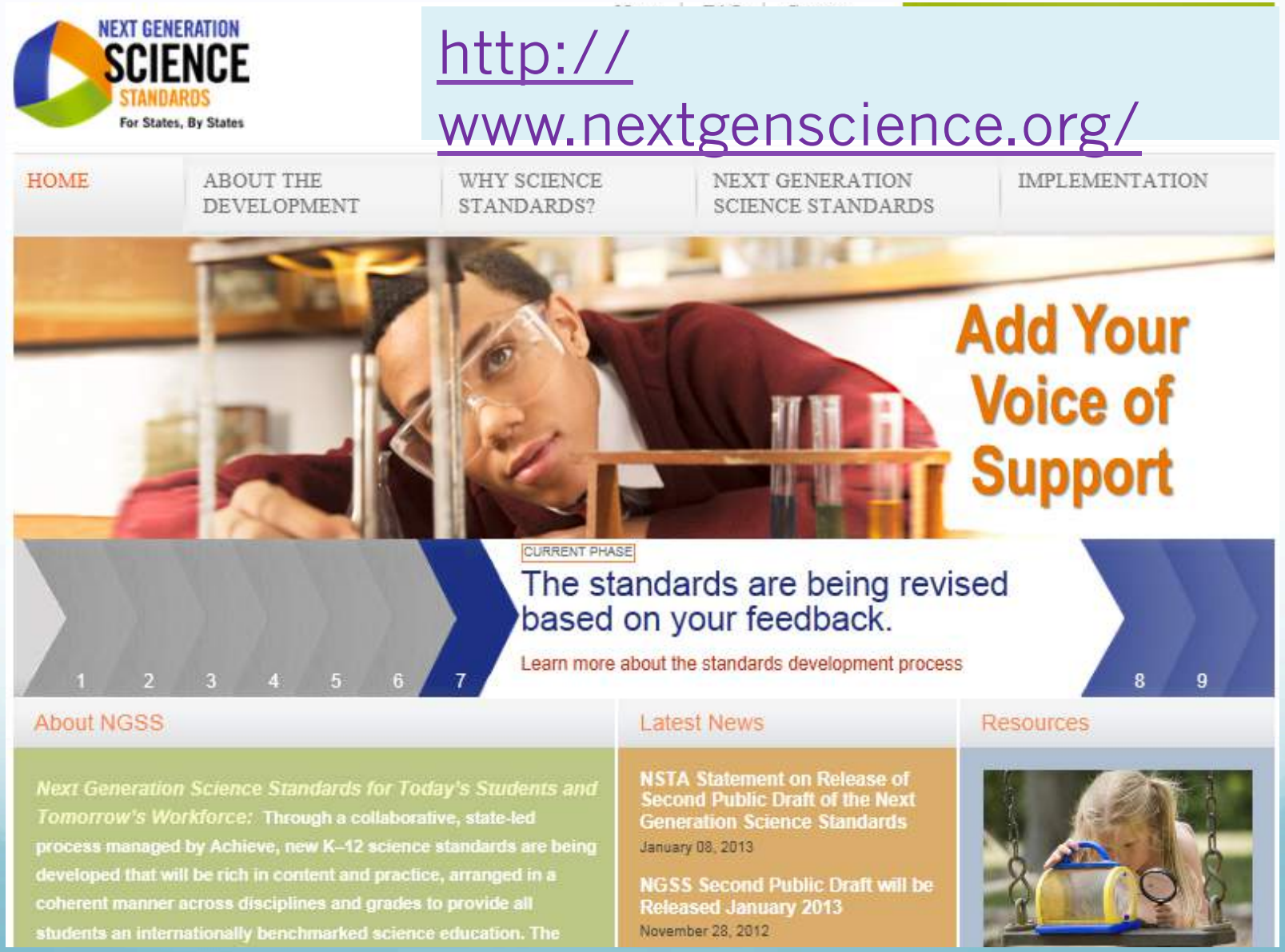
Shift #6: Duel Intensity

Focus on problem-solving and communication

What the Student Does…	What the Teacher Does…
• Practice math skills with an intensity that results in fluency • Practice math concepts with an intensity that forces application in novel situations	• Find the dual intensity between understanding and practice within different periods or different units • Be ambitious in demands for fluency and practice, as well as the range of application

Next Generation Science Standards

http://www.nextgenscience.org/



Take Action Now

Form Teams at your Institution

- *Team includes COE faculty, content faculty, leadership, district personnel, teachers*
- *Team attends trainings, shares information, creates workshops, maintains connections*

Connect with local school districts

- *Ask to be included in school PD*

Re-connect with current teaching

- *Visit classrooms, offer to co-teach, get involved to experience district implementation*
- *Use the new standards*

Resources

- CPALMS
  - http://www.floridastandards.org
- Common Core State Standards for Mathematics
  - http://www.corestandards.org
- CCSS Toolbox
  - http://www.ccsstoolbox.com/
- The Hunt Institute
  - http://www.youtube.com/user/TheHuntInstitute
- The Teaching Channel
  - https://www.teachingchannel.org
- Achieve
  - http://achieve.org
- Inside Mathematics
  - http://www.insidemathematics.org/index.php/common-core-standards
- Illustrative Mathematics
  - http://illustrativemathematics.org/
- National Council of Teachers of Mathematics (NCTM) –
  - http://www.nctm.org
- PARCC
  - http://

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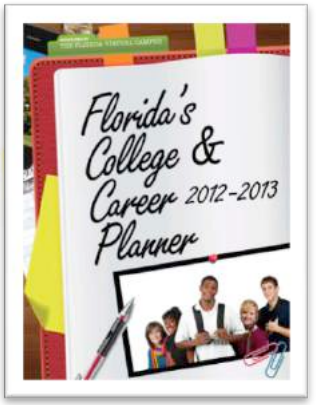

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- College & Career Readiness Evaluation
- Bright Futures Scholarship Eligibility Evaluation
- Career Planning
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2013 Symposium Register Now!

Degree Completion Programs

Advising Manuals

2013 CCSS Summer Training

Dates	Location
June 18-19	Gulf Breeze HS, Santa Rosa County
June 25-26	Boca Ciega HS, Pinellas County
June 27-28	Boca Ciega HS, Pinellas County
July 16-17	Santaluces HS, Palm Beach County
July 18-19	Santaluces HS, Palm Beach County
July 23-24	Atlantic Coast HS, Duval County
July 25-26	First Coast HS, Duval County

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