



Evaluation Matters

Volume 3, Number 4

November 2013

Steven Urdegar, Ph.D, Director

Summer Programs: *An Analysis of Participation and Impact, 2013*

1. What is the purpose of this report?

This report examines the outcomes of the Summer Programs, a two-pronged initiative developed by the Superintendent to provide supplemental instruction for students in need of remediation and access to selected digital application for practice outside the regular school context. The Summer Programs are comprised of seven In-Class components and one Out-of-Class component. Four of the In-Class components target the elementary grades: Third Grade Summer Reading Camps¹, Rising Literacy for Third Grade Students, Extended School Year Special Education Services, and Voluntary Prekindergarten. These components are focused on stimulating readiness skills and strengthening reading comprehension. Two of the In-Class components target the secondary grades: Algebra I End-of-Course (EOC) remediation and Course Recovery. These components are focused on advancing progression/promotion and increasing opportunities for graduation. The Out-of-Class component, iLearning on the Go, provided students with access to a variety of Internet based software applications outside of the regular school setting through hypertext links available on the Student Portal. Nine additional applications (i.e., Reading Plus; Destination Reading and Mathematics; Odyssey Reading and Mathematics; Gizmos Mathematics and Science; and, Successmaker Reading and Mathematics) that comprise the Links to Learning suite during the school year were also made available to students on an ongoing basis during the summer.

2. Which populations are targeted in this report?

- **In-Class components**

The samples for the study included all students in grades 3 through 10 who entered prior to the second day of the summer reporting cycle and remained enrolled in the respective component for the duration of the cycle. Comparison groups were also defined for those components by identifying non-participating students having pre- and post- test data who were then matched to the participating students on selected demographic and achievement variables. Students who did not have valid pre- and post- test scores at consecutive grades or who only partially participated in any component, were excluded from the analysis.

- **Out-of-Class component**

The samples for the study included all students in grades K through 12 who accessed the appropriate page on the Student Portal during the summer reporting cycle. Participation and usage analyses included all students who accessed the appropriate page and/or used selected application software during the summer session. The examination of the amount of usage needed to benefit from the program (dose response analyses) included all students who used one of the specified software packages during the summer session. Students who did not have valid pre- and post- test scores at consecutive grades were excluded from the analysis. No comparison group was provided.

3. How were the data for this report collected and analyzed?

Participation data were obtained from the student course registration data file and examined through descriptive statistics. Each component with a defined comparison group was analyzed by comparing the outcomes for students who participated in the component with students who did not, while taking into account the influence of demographic differences and baseline achievement, as measured by a pretest. Each component without a defined comparison group was analyzed by gauging whether increased use was associated with superior outcomes, once students' demographic characteristics and baseline achievement were taken into account. The results for components without assessment data (e.g., Course Recovery) were limited to descriptive statistics.

4. What are the outcomes of the Rising Literacy for Third Grade Students component?

The curriculum used in the Rising Literacy component for entering, first-time third graders was a research-based intervention program called After the Bell, developed by Scholastic. It may be noted that this curriculum was also used in the Grade 3 Reading Camps, offered to retained third grade students (a full evaluation of this state-mandated component is presented under separate cover).ⁱ The curriculum utilized whole group and small group instruction and targeted reading comprehension skills, phonics instruction and fluency practice. The sections that follow examine both participation in and impact of the component.

- **Participation.** Table 1 lists the number and percentage of registered students who completed the Rising Literacy component, participated and withdrew prior to completion, and registered but did not participate.
 - Over 3,500 students registered for the component.
 - Over two-thirds of the students who registered to participate, completed the component.

Table 1. Participation in the Rising Literacy for Third Grade Students Component

Participation							Total
Full ^a		Partial ^b		None ^c			
<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
2,381	67.1	55	1.5	1,114	31.4	3,550	

^aStudents who completed the component. ^bStudents who participated and withdrew prior to completion. ^cStudents who initially registered but did not attend (i.e., no shows).

- **Impact.** Comparison groups of non-participating students were identified by matching to each participating student based on their demographic characteristics and pretest scores. Then, statistical regression procedures were used to compare the outcomes for students who participated in the program with students who did not, controlling for the influence of demographic differences and initial ability as measured by the SAT-10 pretest. The outcome for each grade was whether or not students exceeded their expected score on the 2013 baseline benchmark.
 - Participating students were found to be significantly (nearly 1½) more likely than their non-participating counterparts to exceed the expected score for their grade.

5. What are the outcomes of the Algebra I EOC Remediation Component?

The Algebra I EOC remediation component is an intervention designed to prepare students who did not receive passing scores (i.e., Level 3 and above) on the Algebra I End of Course Assessment (EOC) to retake the test, achieve a passing grade, and earn high school credit. The component focused on reviewing and strengthening specific skills. High school students who failed both the exam and the course were offered a full credit course, while middle and high school students who failed only the exam were offered a half credit course.

- **Participation.** Table 2 lists the number and percentage of registered students who completed the Algebra I remediation component, participated and withdrew prior to completion, or registered but did not participate in the program, listed separately by their spring 2013 grade level. The counts are grouped according to participation in the half credit and full credit programs.

Table 2. Participation in the Algebra I EOC Remediation Component

Spring Grade	Participation						Total Enrolled
	Full ^a		Partial ^b		None ^c		
	n	%	n	%	n	%	
(Half Credit Course)							
8	25	50.0	5	10.0	20	40.0	50
9	1,834	76.9	235	9.8	317	13.3	2,386
10	376	68.4	47	8.5	127	23.1	550
11	174	77.7	9	4.0	41	18.3	224
12	56	83.6	3	4.5	8	11.9	67
ALL	2,465	75.2	299	9.1	513	15.7	3,277
(Full Credit Course)							
8	15	50.0	2	6.7	13	43.3	30
9	1,999	81.7	189	7.7	260	10.6	2,448
10	386	78.6	44	9.0	61	12.4	491
11	43	86.0	0	0.0	7	14.0	50
12	51	82.3	0	0.0	11	17.7	62
ALL	2,494	80.9	235	7.6	352	11.4	3,081

^aStudents who completed the component. ^bStudents who participated and withdrew prior to completion. ^cStudents who initially registered but did not attend (i.e., no shows).

- Over 6,000 students enrolled in the component, and were about evenly divided between the half and full credit courses.
- Three-quarters of students in the half credit course completed it, as did four-fifths of students in the full credit course.
- Over three quarters of the participants were ninth grade students in the spring.
- **Impact:** Statistical regression procedures were used to adjust the posttest scores of students to remove the influence of demographic differences and baseline achievement, as measured by the spring Algebra I EOC pretest, and to compare the outcomes for students who participated in the courses with those of students who did not. The outcome established for each grade was passing the summer Algebra I EOC by scoring Level 3 or higher.
 - **Pass rate:** Table 3 separately lists for the half credit course, the full credit course, and for non-participants, the total number of students, and the number and percent of students who passed the end of summer Algebra I EOC exam, by spring grade.

Table 3. Pass Rates for the End of Summer Algebra I EOC Examination by Grade

Spring Grade	Half Credit Course			Full Credit Course			Non-Participants		
	Total Students	Passing		Total Students	Passing		Total Students	Passing	
		n	%		n	%		n	%
9	1,821	711	39.0	1,262	288	22.8	616	153	24.8
10	285	103	36.1	113	25	22.1	252	48	19.0
Total	2,106	814	38.7	1,375	313	22.8	868	201	23.2

- Nearly all the students who completed the half credit course and nearly two-thirds of the students who completed the full credit course in Table 2, took the end of summer Algebra I EOC exam.
- Pass rates for students who completed the half credit course were higher than for students who completed the full credit course with little grade level differences seen.
- **Effect:** Students who completed the half and full credit courses scored, on average, at or near Level 2 on the pretest. Both programs, while partially effective, provided benefits to different groups of students.
 - **Half credit course**
 - ◆ Ninth grade students were significantly (1.68 times) more likely to pass the Summer Algebra 1 EOC posttest than students who did not take the course. However, the effect varied with students' pretest scores so that only students with pretest scores within Level 2 were significantly more likely to pass the Algebra I EOC posttest.
 - ◆ Tenth grade students were significantly (2.60 times) more likely to pass the Summer EOC than students who did not take the course, regardless of their pretest scores.
 - **Full credit course.**
 - ◆ Ninth grade students were significantly (1.64 times) more likely to pass the summer Algebra 1 EOC posttest than students who did not take the course, regardless of their pretest scores.
 - ◆ Tenth grade students were on average 1.33 times more likely to pass the Summer EOC

than students who did not take the course, an improvement that was not statistically significant. However, the effect varied with students' pretest scores, the impact was only significant for those with pretest scores above the bottom fourth of Level 2 .

6. What are the outcomes of the Credit Recovery component?

The Credit Recovery component provided an opportunity for middle school students who failed to accumulate the expected number of credits in core courses for their age and grade to accumulate additional credits during the summer. The totals do not include participation in the Algebra I remediation component.

- **Participation.** Table 4 lists the number and percentage of registered students who completed the component, registered and withdrew prior to completion, and registered but did not participate in the component, by subject area.
 - Over 3,000 students enrolled in the component, of which nearly three-fourths completed it.
 - Completion rates were highest for mathematics courses and lowest for science courses.

Table 4. Participation in the Credit Recovery Component

	Participation						Total Enrolled
	Full ^a		Partial ^b		None ^c		
	n	%	n	%	n	%	
Language Arts	410	72.8	16	2.8	137	24.3	563
Mathematics	1,153	76.3	53	3.5	306	20.2	1,512
Science	393	67.9	20	3.5	166	28.7	579
Social Studies	446	68.8	12	1.9	190	29.3	648
Total	2,402	72.7	101	3.1	799	24.2	3,302

^aStudents who completed the component. ^bStudents who participated and withdrew prior to completion. ^cStudents who initially registered but did not attend (i.e., no shows).

- **Course Completion.** Table 5 provides list the academic grades earned during summer school by the students who completed the component by subject area.
 - Nearly three-quarters of students who completed the component earned grades.
 - Nearly all of the students who completed the component earned passing grades
 - Students who took science and social studies courses earned the highest grades.
 - Nearly half of the students who completed the component earned grades of B or higher.

Table 5. Academic Grades Earned by Students who Completed the Component by Subject Area

	Number Completed	Percent Graded	Final Grades									
			A		B		C		D		F	
			n	%	n	%	n	%	n	%	n	%
Language Arts	410	80.0	36	11	136	41.5	131	39.9	24	7.3	1	0.3
Mathematics	1,153	71.0	37	4.5	242	29.5	395	48.2	120	14.7	25	3.1
Science	393	75.3	32	10.8	152	51.4	91	30.7	16	5.4	5	1.7
Social Studies	446	72.6	34	10.5	138	42.6	121	37.3	28	8.6	3	0.9
Total	2,402	73.6	139	7.9	668	37.8	738	41.8	188	10.6	34	1.9

6. What are the outcomes for the iLearning on the Go component?

The iLearning on the Go component provided students access to a variety of software applications outside of the regular school setting. These applications included (a) the nine applications that comprise the Links to Learning suite and (b) a variety of Internet based software applications accessed through a dedicated Web page on the Student Portal.

- **Links to Learning applications:** Detailed usage data were only made available by the developers of seven of the nine applications: Reading Plus; Destination Reading and Mathematics; Odyssey Reading and Mathematics; and Successmaker Reading and Mathematics.
 - **Usage:** Table 6 lists the number of students that used each application, the hours used by the “typical” student (50th percentile of usage), and by a “high-usage” student (95th percentile of usage) at each grade level and overall. The table shows that summer usage was much smaller than was seen during the regular school year.²

Table 6. Links to Learning Applications Summer Usage

Grade	Reading Plus			Destination			Odyssey			Successmaker		
	n	Percentiles		n	Percentiles		n	Percentiles		n	Percentiles	
		50	95		50	95		50	95		50	95
(Reading)												
3	728	1.70	8.00	215	0.65	7.34	--	--	--	88	1.03	8.31
4	844	1.43	8.43	165	0.65	4.10	--	--	--	79	1.40	5.77
5	727	1.53	8.34	116	0.33	6.14	--	--	--	95	0.95	4.82
6	346	2.12	9.56	42	0.63	7.16	22	4.46	20.36	--	--	--
7	277	2.12	11.60	21	0.47	10.62	38	2.18	18.51	--	--	--
8	201	1.97	8.82	--	--	--	24	4.17	15.26	--	--	--
9	33	0.60	6.52	--	--	--	--	--	--	--	--	--
10	67	0.78	6.93	--	--	--	--	--	--	--	--	--
Total	3,223	1.58	8.64	559	0.58	6.07	84	2.99	15.67	262	1.07	5.71
(Mathematics)												
3	--	--	--	270	0.57	12.86	--	--	--	86	0.81	5.74
4	--	--	--	206	0.50	5.43	--	--	--	80	1.02	5.18
5	--	--	--	155	0.58	8.38	--	--	--	109	0.77	5.00
6	--	--	--	50	0.37	5.25	22	0.56	0.95	--	--	--
7	--	--	--	37	0.95	11.06	38	0.38	0.95	--	--	--
8	--	--	--	27	0.92	32.29	24	0.49	0.99	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	745	0.53	7.79	84	0.46	0.95	275	0.78	5.28

- ♦ **Reading Plus** was used by around 750 students per grade in grades 3-5, around 300 students per grade in grades 6-8, and around 50 students per grade in grades 9-10.

However, half of the students used the software for less than 2 hours all summer, and 95% used it for fewer than 11½ hours all summer.

- ♦ **Destination** provided reading and mathematics software, which was used by around 200 students per grade in grades 3-5. Half the students used the software for fewer than 1 hour, and 95% of the students mainly used the software in either subject for fewer than 13 hours all summer.
 - ♦ **Odyssey** provided both reading and mathematics software, which was used by around 30 students per grade in grades 6-8, mostly for the purpose of practicing mathematics. Half of the students used the software for fewer than 4¾ hours, while 95% of the students used the software for fewer than 20 hours for that purpose all summer.
 - ♦ **Successmaker** provided both reading and mathematics software, which was used by around 90 students per grade in grades 3-5. Half of the students used the software for fewer than 1½ hours, while 95% of the students used the software for fewer than 8 hours in either subject all summer.
- **Impact:** A dose response analysis was used to determine whether increased use of the software was associated with superior outcomes, once students' initial ability and demographic characteristics were taken into account. The outcome, for each grade, was whether or not students exceeded their expected score on the 2013 baseline benchmark assessment.
 - Students who were heavy users of any of the software applications did not systematically have better outcomes than students who were typical users, once their initial ability and demographic characteristics were taken into account.
 - **Non-Links-to-Learning applications:** This section includes Web based applications accessible through the iLearning on the Go page that are not part of the Links to Learning suite. A complete list may be found in Table A at the end of this report.
 - **Types:** The Web based applications are categorized by subject area in Table 7.

Table 7. Number and Level of E-Learning Wave Applications by Subject Area

Subject	Level	Number
Arts and Music	K - 12	8
Computer Technology ^a	9 - 12	17
Foreign Language ^a	9 - 12	7
Language Arts	K - 12	44
Mathematics ^b	6 - 12	42
Science ^c	9 - 12	47
Social Studies ^c	9 - 12	38
Total	K - 12	203

^aIncludes one application geared to grades K-5 and one application geared to grades 6 - 8.

^bIncludes three applications geared to the grades K-5 and three applications geared to grades 3 - 8. ^cIncludes nine applications geared to other grade levels.

- Over two hundred applications were offered to students.
- Language Arts, Mathematics, Science, and Social Studies each accounted for around one-fifth of the total.
- Nearly one-tenth of the applications addressed Computer Technology.

- **Participation:** Participation in the program was tracked by counting the total number of visits to the iLearning on the Go page of the Student Portal per sign on. Visits to the page to access one of the nine Links to Learning applications are included in this total.
 - A total number of 9,159 visits were made to the page during the 15 days that data were collected.

7. What are the principal conclusions of this report?

The results for the Summer Programs indicate that the in-class components had a beneficial impact on the achievement of most of the student groups who used them. The positive impact found for the Literacy for Rising Third Grade Students program is consistent with the impact found for the Third Grade Summer Reading Camps¹ and indicates that the After the Bell curriculum, used in both programs, produced positive benefits for participating students during the Summer 2013 program. Algebra I remediation, significantly improved the odds of passing the End of Course exam for participants with pretest scores at Level 2, but had limited success for students with pretest scores at Level 1. The result for the use of out-of-class software programs appeared to have little effect on the achievement of students who used them. Low levels of usage may have contributed to the lack of impact. Further, the self directed nature of the participation likely contributed to a wide variation in the amount and type of instruction students received. Increased time spent using the application was not associated with increased levels of achievement.

¹Urdegar, S.M. (2013). *Third Grade Summer Reading Camps, 2013 evaluation*. Miami, FL: Miami-Dade County Public Schools.

²Urdegar, S.M. (2013) Links to Learning applications: An analysis of usage and impact, 2012-13. *Evaluation Matters*, 3 (4), 1-5.

Table A. Learning on the Go - Applications Menu

Application	Link	Level
Arts and Music		
Arthur - Crank It Up!	http://pbskids.org/arthur/games/crankitup/index.html	K - 3
Arts and Music Games	http://www.playkidsgames.com/	1 - 5
Create a Movie Step by Step: Screenwriting; Directing; Production; Acting; Editing	http://www.learner.org/interactives/cinema/index.html	6 - 8
Curious George Games, Printables, Video Clips	http://pbskids.org/curiousgeorge/games/#1	2 - 5
Explore Rhythms, beats	http://tinyurl.com/cpfhdy3	K - 3
Fun and Educational Website for Teens	http://www.ipl.org/div/teen/	6 - 12
Power My Learning	http://powermylearning.com/directory/art	K - 12
The Art of M.C. Escher: Math to Create Beautiful—and Seemingly Impossible—Images	http://www.mathacademy.com/pr/mini-text/escher/	9 - 12
Computer Technology		
Computer Science Activities	http://www.csunplugged.org/activities	9 - 12
Computer Science for Fun	http://www.cs4fn.org/magic/	9 - 12
Edgenuity	https://mdcpsportalapps2.dadeschools.net/EdgenuitySSO	6 - 12
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/ElementaryTech.aspx	K - 5
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/MiddleTech.aspx	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/HighTech.aspx	9 - 12
Free Microsoft Software for Students	https://www.dreamspark.com/#	9 - 12
Fun and Educational Website for Teens	http://www.ipl.org/div/teen/	6 - 12
Learning to Code	http://www.codecademy.com/#!/exercises/0	9 - 12
Library of Congress Collections on Technology & Science	http://www.loc.gov/topics/science.php	9 - 12
Microsoft Online Classes for Students	http://h30440.www3.hp.com/learningcenter/	9 - 12
Microsoft Windows Center ~ Fun for Kids	http://www.microsoft.com/student/en-us/default.aspx#fbid=9Fa7WCsx2xO	9 - 12
Online Software Training Videos & Tutorials	http://www.lynda.com/	9 - 12
Power My Learning	http://powermylearning.com/directory/computer-programming	K - 12
Robo Tech Ed	http://www.roboteched.net/	9 - 12
TED Talks	http://www.ted.com/	9 - 12
Using Technology to Solve World's Problems	http://www.imaginecup.us/Students/Index.aspx#fbid=_ryTM-6bSLN	9 - 12

(table continues)

Table A, continued

Application	Link	Level
Foreign Language		
Brain Training Games	http://www.travlang.com/languages/	9 - 12
Destinos - Travel the World and Learn Spanish	http://www.learner.org/series/destinos/	9 - 12
Edgenuity	https://mdcpsportalapps2.dadeschools.net/EdgenuitySSO	6 - 12
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/ElementaryForeignLanguage.aspx	K - 5
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/MiddleForeignLanguage.aspx	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/HighForeignLanguage.aspx	9 - 12
Languages for Travelers	http://www.travlang.com/languages/	9 - 12
Language Arts		
Academic English	http://www.voanews.com/learningenglish/theclassroom/activities/#	9 - 12
Animated Picture books	http://tinyurl.com/5cptok	K - 3
Create a flip book	http://tinyurl.com/yd7y6r7	K - 3
Create Your Own Puzzles	http://www.discoveryeducation.com/free-puzzlemaker/?CFID=40940&CFTOKEN=28857756	9 - 12
Crossword Puzzles	http://tinyurl.com/ydlmome	K - 12
Curious George Games, Printables, Video Clips	http://pbskids.org/curiousgeorge/games/#1	2 - 5
Edgenuity	https://mdcpsportalapps2.dadeschools.net/EdgenuitySSO	6 - 12
Elements of Literature Using Interactive Activities	http://www.learner.org/interactives/literature/index.html	9 - 12
Essay Writing - Interactive	http://www.readwritethink.org/files/resources/interactives/essaymap/	9 - 12
FCAT 2.0 Reading	http://student.education2020.com	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/ElementaryEnglish.aspx	K - 5
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/MiddleEnglish.aspx	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/HighEnglish.aspx	9 - 12
For telling a good story, explore narratives, then, write a story of your own.	http://www.learner.org/interactives/story/index.html	2 - 6
Fractured Fairy Tales	http://tinyurl.com/yldqhfo	3 - 8
Fun and Educational Website for Teens	http://www.ipl.org/div/teen/	6 - 12
Grammar Lessons for Students; Idioms; Phrasal Verbs; Pronunciation Power; Quizzes; Slang	http://www.eslcafe.com/	7 - 12
Graphic Organizer	http://tinyurl.com/ykqgbob	K - 12

(table continues)

Table A, continued

Application	Link	Level
Language Arts, continued		
Interactive Dictionaries: Idioms; Health; Business English; Interactive Word Book	http://www.voanews.com/learningenglish/theclassroom/interactive/	6 - 12
Language Arts Games	http://www.playkidsgames.com/	1 - 5
Language Arts Interactive	http://www.learner.org/interactives/	K -12
Literature to Go ~ Online Stories & Poems	http://etc.usf.edu/lit2go/	9 - 12
Magazine, Website, & Book by Teens	http://www.teenink.com/	9 - 12
Myths, Folktales, & Fairy Tales	http://teacher.scholastic.com/writewit/mff/index.htm	9 - 12
Old Fashioned Spelling Bee	http://www.learner.org/interactives/spelling/index.html	1 - 12
Online Audience for Teen Poets	http://www.threethingspoetry.com/	9 - 12
Organize alphabet	http://tinyurl.com/y9d4gyl	K - 12
PBS Barney and Friends: Story time	http://pbskids.org/barney/children/games/index.html	K - 3
Power My Learning	http://powermylearning.com/directory/language-arts	K -12
Research & Writing for Teens	http://www.ipl.org/div/aplus/	9 - 12
Scripts Frenzy	http://www.scriptfrenzy.org/	9 - 12
Share What You're Reading: Write & Read Book Reviews	http://teacher.scholastic.com/activities/swyar/	9 - 12
Share Writing, Connect with Readers, Discover Authors	http://figment.com/	9 - 12
Stories read by actors	http://www.Storylineonline.net	K - 12
Stories Read Out Loud	http://www.storylineonline.net/	9 - 12
Story Maker for Kids	http://www.carnegielibrary.org/kids/storymaker/embed.cfm	9 - 12
Student Writing Center	http://www.discover-writing.com/forstudents.html	9 - 12
Texting101	http://www.voanews.com/learningenglish/theclassroom/activities/	9 - 12
Thinkfinity 9-12 Interactive for Language Arts	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyword=What+are+you+looking+for%3F&txtKeyword2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Language+Arts	9 - 12
Thinkfinity 9-12 Interactive for Literature	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyword=What+are+you+looking+for%3F&txtKeyword2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Literature	9 - 12
Topic-Based English Language Practice	http://www.eslpartyland.com/students/inter.htm	9 - 12
Write a Comic Strip	http://tinyurl.com/ycnzopv	K -12
Write words	http://tinyurl.com/64497a7	K -5
Young Writers Program	http://ywp.nanowrimo.org/	9 - 12

(table continues)

Table A, continued

Application	Link	Level
Mathematics		
A Treasury of Modern and Classic Puzzles	http://www.puzzles.com/PuzzlePlayground/WelcomeToPuzzlePlayground.htm	9 - 12
A+ Math Games	http://www.aplusmath.com/Games/index.html	9 - 12
Absurd Math: An Interactive Mathematical Problem-Solving Game Series	http://www.learningwave.com/abmath/	9 - 12
ACT National Test Preparation	http://student.education2020.com	9 - 12
Algebra	http://www.learnbasket.com/	9 - 12
Algebraic Thinking	http://illuminations.nctm.org/ActivityDetail.aspx?id=28	3 - 8
American Mathematical Society's News, Publications, Careers and Conference Information	http://www.ams.org/profession/student	9 - 12
Area of a triangle	http://illuminations.nctm.org/ActivityDetail.aspx?id=48	2 - 5
Browsable Math Encyclopedia	http://www.mathacademy.com/pr/prime/index.asp	9 - 12
Curious George Games, Printables, Video Clips	http://pbskids.org/curiousgeorge/games/#1	2 - 5
Edgenuity	https://mdcpsportalapps2.dadeschools.net/EdgenuitySSO	6 - 12
Everyday Math	http://www.learner.org/interactives/dailymath/index.html	9 - 12
Explore Mathematicians' Efforts to Crack Fermat's Last Theorem: A Supposedly Unsolvable Equation.	http://www.pbs.org/wgbh/nova/proof/	9 - 12
Facts, Formulas, and Articles about Pi	http://personal.bgsu.edu/~carother/pi/Pi1.html	9 - 12
FCAT 2.0 Math	http://student.education2020.com	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/ElementaryMath.aspx	K - 5
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/MiddleMath.aspx	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/HighMath.aspx	9 - 12
Interactive Geometry 3D Shapes: Surface area; volume; mathematical properties	http://www.learner.org/interactives/	6 - 8
Learn Metric Conversion	http://www.learner.org/interactives/	6 - 8
Manga High	http://www.mangahigh.com/en_us/games	9 - 12
Math Activities	http://illuminations.nctm.org/Activities.aspx?grade=3&grade=4	9 - 12
Math Games	http://www.playkidsgames.com/	1 - 5
Math Interactive	http://www.learner.org/interactives/	K - 12
Math is Fun! ~ Games	http://www.mathsisfun.com/games/index.html	9 - 12
Math Jeopardy, Millionaire, Money and Math Games	http://www.math-play.com	K - 12
Math Khan Academy	http://www.khanacademy.org	6 - 12

(table continues)

Table A, continued

Application	Link	Level
Mathematics, continued		
Math Puzzles	http://www.mathpuzzle.com/	9 - 12
Multiplication.com Games	http://www.multiplication.com/games	9 - 12
Power My Learning	http://powermylearning.com/directory/math	K - 12
Probability	http://illuminations.nctm.org/ActivityDetail.aspx?id=79	3 - 8
Probability	http://illuminations.nctm.org/ActivityDetail.aspx?ID=143	3 - 8
Puzzles, Quizzes, Cool Tools, & Wonders of Math	http://www.math.com/	6 - 12
Reflex Math	http://www.reflexmath.com/trial	3 - 8
SAT National Test Preparation	http://student.education2020.com	9 - 12
The Math Forum - Ask Dr. Math & Puzzle	http://mathforum.org/students/	K - 12
Thinkfinity 9-12 Interactive for Mathematics	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyWord=What+are+you+looking+for%3F&txtKeyWord2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Mathematics	9 - 12
Time Tables Game	http://www.teachingtables.co.uk/timetable/tgame1.html	9 - 12
Trivia Quizzes	http://eveander.com/trivia/	9 - 12
Use of Math behind Polls and in the News	http://www.learner.org/interactives/statistics/index.html	9 - 12
Volume	http://illuminations.nctm.org/ActivityDetail.aspx?id=6	3 - 8
Science		
Amusement Park physics: Design Your Own Roller Coaster	http://www.learner.org/interactives/parkphysics/index.html	9 - 12
Animals, Adaptations, & the Galapagos Islands	http://teacher.scholastic.com/activities/explorations/adaptation/backyardscience.htm	9 - 12
Brain Games	http://news.discovery.com/human/discovery-news-games-120120.html	9 - 12
Build Your Own Ecosystem	http://www.learner.org/courses/envsci/interactives/ecology/	9 - 12
Classify Insects	http://teacher.scholastic.com/activities/explorations/bug/index.htm	9 - 12
Coloring Book of emergency procedures from FEMA	http://www.ready.gov/kids	2 - 6
Comic Strips on Safety from FEMA	http://www.ready.gov/fun-games/comic-strips	2 - 6
Curious George Games, Printables, Video Clips	http://pbskids.org/curiousgeorge/games/#1	2 - 5
Discover's Interactive Games, Virtual Labs, Videos	http://www.discoveryeducation.com/students/index.cfm?campaign=flyout_students##	9 - 12
Discovery News	http://news.discovery.com/	9 - 12
Earth structures: Plate tectonics, boundaries, slip, slide, and collide.	http://www.learner.org/interactives/dynamicearth/index.html	7 - 9
Edgenuity	https://mdcpsportalapps2.dadeschools.net/EdgenuitySSO	6 - 12

(table continues)

Table A, continued

Application	Link	Level
Science, continued		
Energy Lab - Lab from The Habitable Planet: Energy sources to meet the world's projected energy demand.	http://www.learner.org/courses/envsci/	6 - 12
Environmental Choices	http://sciencenetlinks.com/media/filer/2011/10/07/powerup.swf	3 - 8
Eyes on Earth – Travel in Time, Explore Satellite 3-D Images	http://climate.nasa.gov/Eyes/	9 - 12
Family Guide to Mars	http://www.marsquestonline.org/resources/familyguide/index.html	9 - 12
FCAT 2.0 Science	http://student.education2020.com	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/ElementaryScience.aspx	K - 5
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/MiddleScience.aspx	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/HighScience.aspx	9 - 12
Fun and Educational Website for Teens	http://www.ipl.org/div/teen/	6 - 12
Games to promote emergency procedure awareness	http://www.fema.gov/kids/games1.htm	2 - 9
Global Climate Change Interactive	http://climate.nasa.gov/interactives/	9 - 12
Head Rush – Myth Busters Videos & Games	http://headrush.discovery.com/#	9 - 12
How to Improve Next Year's Environmental Record	http://www.learner.org/interactives/garbage/intro.html	9 - 12
Interactive Physics Simulations	http://lectureonline.cl.msu.edu/~mmp/applist/applets.htm	9 - 12
Invention at Play	http://www.inventionatplay.org/playhouse_main.html	9 - 12
Journey Into Space: Gravity, Orbits, & Collision	http://teacher.scholastic.com/activities/explorations/space/	9 - 12
Learn About DNA	http://www.learner.org/interactives/dna/index.html	9 - 12
Match it Emergency Procedures/vocabulary from FEMA	http://www.ready.gov/pack-it-game	4 - 8
Multimedia Physics	http://www.physicsclassroom.com/mmedia/	9 - 12
Physics for the 21st Century	http://www.learner.org/courses/physics/	9 - 12
Power My Learning	http://powermylearning.com/directory/science	K - 12
Predicting Volcanoes and Earthquakes	http://www.learner.org/interactives/volcanoes/index.html	9 - 12
Rock Cycle with Visuals	http://www.learner.org/interactives/rockcycle/index.html	7 - 9
Science Crossword Puzzles from FEMA	http://www.ready.gov/your-brain-work	4 - 8
Science in Latin America	http://lanic.utexas.edu/subject/science/	9 - 12
Science Interactive	http://www.learner.org/interactives/	K - 12
Science Writing	http://teacher.scholastic.com/activities/sciencewriting/	9 - 12
SciMorph & SciWorld	http://6007.stem.org.uk/index.html#/home	9 - 12
Smithsonian's Science Websites & Games	http://smithsonianeducation.org/students/explore_by_topic/science_nature.html	9 - 12

(table continues)

Table A, continued

Application	Link	Level
Science, continued		
Summer Science Fun – Collection of Interactive Games	http://sciencenetlinks.com/collections/summer-learning/	9 - 12
The Basics of the Periodic Table	http://www.learner.org/interactives/periodic/index.html	9 - 12
The Weather	http://www.learner.org/interactives/weather/index.html	9 - 12
Thinkfinity 9-12 Interactive for Science	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyword=What+are+you+looking+for%3F&txtKeyWord2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Science	9 - 12
Virtual Lab on Chemical Bonds	http://www.glencoe.com/sites/common_assets/science/virtual_labs/E20/E20.html	9 - 12
Word Search game from FEMA	http://www.ready.gov/word-search-game	2 - 6
Social Studies		
Ancient History Encyclopedia	http://www.ancient.eu.com/	9 - 12
Black History in America	http://teacher.scholastic.com/activities/bhistory/index.htm	9 - 12
Curious George Games, Printables, Video Clips	http://pbskids.org/curiousgeorge/games/#1	2 - 5
Discover Life during the Middle Ages	http://www.learner.org/interactives/middleages/index.html	9 - 12
Explore a Topic in Smithsonian’s Museum of Natural History	http://www.mnh.si.edu/explore.html	9 - 12
Fantasy Stock Market	http://www.fantasystockexchange.biz/	9 - 12
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/ElementarySocialStudies.aspx	K - 5
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/MiddleSocialStudies.aspx	6 - 8
Florida Virtual Curriculum Marketplace	https://mdcpsportalapps2.dadeschools.net/LearningComSSO/HighSocialStudies.aspx	9 - 12
Geography from Space Online Quizzes	http://airandspace.si.edu/ceps/gaw/	9 - 12
Geography Games	http://www.playkidsgames.com/	1 - 5
History Interactive	http://www.learner.org/interactives/	K - 12
History of the Renaissance	http://www.learner.org/interactives/renaissance/index.html	9 - 12
History Timeline with Hands-On Activities	http://www.learner.org/interactives/historymap/index.html	9 - 12
Map Maker Interactive	http://education.nationalgeographic.com/education/mapping/interactive-map/?ar_a=1	9 - 12
Native American Cultures	http://teacher.scholastic.com/activities/explorer/native_americans/index.asp	9 - 12
Newspapers from Around the World	http://www.newseum.org/todaysfrontpages/flash/	9 - 12
Over 100 Online Encyclopedias and Dictionaries	http://www.encyclopedia.com/	9 - 12
Power My Learning	http://powermylearning.com/directory/social-studies	K - 12
Price of Freedom – Americans at War	http://americanhistory.si.edu/militaryhistory/exhibition/flash.html	9 - 12
Seven Wonders of the World	http://www.panoramas.dk/7-wonders/index.html	9 - 12
Sleuthing to Figure out Historical Events	http://www.learner.org/interactives/historical/index.html	8 - 12

(table continues)

Table A, continued

Application	Link	Level
Social Studies, continued		
Smithsonian’s History & Culture Games	http://smithsonianeducation.org/students/explore_by_topic/history_culture.html	9 - 12
Smithsonian’s History Explorer	http://historyexplorer.americanhistory.si.edu/search/?query=&search_ordin=search&grade=9-12%253b&resource=2%253b&subjects=246%253b247%253b&session=801ba4ba41344f78b3a6fd26d86508e0	9 - 12
The Collapse of 4 Ancient Civilizations	http://www.learner.org/interactives/collapse/index.html	9 - 12
Thinkfinity Games 9-12 for Economics	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyWord=What+are+you+looking+for%3F&txtKeyWord2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Economics	9 - 12
Thinkfinity Games 9-12 for History	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyWord=What+are+you+looking+for%3F&txtKeyWord2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=History	9 - 12
Thinkfinity Games for Geography	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyWord=What+are+you+looking+for%3F&txtKeyWord2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Geography	9 - 12
Thinkfinity Interactive 9-12 for Social Studies	http://www.thinkfinity.org/search?start=0&partner_value=0&from_links=&txtKeyWord=What+are+you+looking+for%3F&txtKeyWord2=What+are+you+looking+for%3F&chkResource[]=Interactive&chkGrade[]=grades:9 grades:10 grades:11 grades:12&chkSubject[]=Social+Studies	9 - 12
Travel back in time	http://americanhistory.si.edu/timeline/index.cfm	3 - 8
Travel Through Space	http://www.timewarp trio.com/	2 - 5
Travel to past	http://americanhistory.si.edu/onthemove/games/game2/game2.html	3 - 8
USA 360 Degrees Virtual Tour	http://www.panoramas.dk/US/index.html	9 - 12
USA Map for Kids	http://www.kidlandia.com/Map.aspx?SKU=KID_14X11_PO_USA-KID_USA_1A	9 - 12
Use Maps to Solve Problems & Help Animals	http://education.nationalgeographic.com/education/multimedia/interactive/maps-tools-gis-action/?ar_a=1	9 - 12
View Parts of the world	http://www.nationalgeographic.com/xpeditions/hall/index.html	K - 5
White House Interactive Tour	http://www.whitehouse.gov/about/inside-white-house/interactive-tour	9 - 12