# Summer Programs: An Analysis of Participation and Impact, 2016 

## 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; Third Grade Summer Reading Camps (a separately evaluated state-mandated program) ${ }^{1}$ Literacy for Rising Third Grade Students, Extended School Year Special Education Services, and Voluntary Prekindergarten) targeted the elementary grades and focused on strengthening reading comprehension and stimulating readiness skills. The other two in-class components, Algebra I End-of-Course (EOC) remediation and Course Recovery, targeted the secondary grades and 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. Access to the Reading Plus application was also made available to students during the summer on an ongoing basis.

## 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 within the first two days 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 nonparticipating students having pre- and post-test data: Third Grade Summer Reading Camps, Algebra 1 EOC remediation - all such students; and Literacy for Rising Third Grade Students - students who scored in the second quartile ( $26^{\text {th }}-49^{\text {th }}$ percentile) on the Reading Comprehension Subtest of Stanford Achievement Test, Tenth Edition (SAT-10) administered in spring 2016 to second grade students. 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 components

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

[^0]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 then 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 Literacy for Rising Third Grade Students component?

The curriculum used in the Literacy for Rising Third Grade Students component for entering, firsttime third graders was a research-based intervention program called Flex Literacy, developed by McGraw Hill. It may be noted that this curriculum was also used in the Third Grade Summer Reading Camps with retained students. The curriculum utilized whole group and small-group instruction to bolster reading comprehension skills. The curriculum included a self-directed technology component as well as a component that targeted reading comprehension, critical thinking, and writing skills. The sections that follow examine both the participation in and impact of these components.

- Participation. Table 1 lists the number and percentage of registered students who completed the Literacy for Rising Third Grade Students component, participated and withdrew prior to completion, and registered but did not participate.

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

| Total | Participation |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Full ${ }^{\text {a }}$ |  | Partial ${ }^{\text {b }}$ |  | None ${ }^{\text {c }}$ |  |
|  | n | \% | n | \% | n | \% |
| 2,998 | 1,619 | 54.0 | 111 | 3.7 | 1,268 | 42.3 |

${ }^{\text {a }}$ Students who completed the component. ${ }^{\text {b }}$ Students who participated and withdrew prior to completion. ${ }^{\text {c }}$ Students who initially registered but did not attend (i.e., no shows).
o Nearly 3,000 students registered for the component.
o More than half of the students who registered to participate, completed the component.

- Impact. Comparison groups of non-participating students were identified by examining their scores on the spring 2016 administration of the Reading Comprehension subtest of the SAT-10. 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 outcomes were the students' composite scaled scores on the iReady Diagnostic Test administered during the fall of 2016.
o Rising third graders who scored lower on the SAT-10 benefitted more from the program, those at or below the $28^{\text {th }}$ percentile significantly so. Students' relative odds of testing on grade level, 1.18 to 1 , were non-significant.
o While differences in the date that students were given the iReady test did not influence the program's impact, the later that both participating and non-participating students took the iReady diagnostic, the lower they scored. This suggests that more struggling students tended to be tested later.


## 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 on the Next Generation Sunshine State Standards (NGSSS) or the Florida Standards Assessment (FSA) version of the Algebra 1 End of Course Assessments (EOC) to retake the test, achieve a passing grade, and meet the Algebra 1 graduation test criteria. The component focused on reviewing and strengthening specific skills. High school students were offered the course through the adult education centers, while middle/high school students at selected alternative schools were offered the course at those locations. It should be noted that beginning in 2016, both the NGSSS and FSA versions of the EOC were made available to students and separate analysis were conducted for each assessment.

- 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 2016 grade level.

Table 2. Participation in the Algebra I EOC Remediation Component

| Spring | Total | Participation |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full ${ }^{\text {a }}$ |  | Partial ${ }^{\text {b }}$ |  | None ${ }^{\text {d }}$ |  |
| Grade |  | n | \% | n | \% | n | \% |
| 8 | 16 | 9 | 56.3 | 0 | 0.0 | 7 | 43.8 |
| 9 | 1,590 | 1,273 | 80.1 | 76 | 4.8 | 241 | 15.2 |
| 10 | 238 | 162 | 68.1 | 5 | 6.3 | 61 | 25.6 |
| 11 | 126 | 90 | 71.4 | 7 | 5.6 | 29 | 23.0 |
| 12 | 21 | 15 | 71.4 | 0 | 0 | 6 | 28.6 |
| Total | 1,991 | 1,549 | 77.8 | 98 | 4.9 | 344 | 17.3 |

${ }^{\text {a }}$ Students who completed the component. ${ }^{\text {b }}$ Students who participated and withdrew prior to completion. ${ }^{c}$ Students who initially registered but did not attend (i.e., no shows).
o Nearly 2,000 students enrolled in the component.
o More than $80 \%$ of the participants in Grade 9 and around 70\% of the participants in Grades 1012 completed the program.
o Nearly $80 \%$ of the participants were students in Grade 9.

- Impact: Statistical regression procedures were used to estimate the impact of demographic differences, baseline achievement (as measured by the spring Algebra I EOC pretest), and program participation on the students' chances of passing the summer Algebra 1 EOC. Students who initially took the Algebra I EOC prior to spring 2015 were eligible to continue taking the Next Generation State Standards (NGSSS) version of the test as a retake opportunities beginning in summer 2015. The passing score for the spring and summer administrations of the NGSSS was an achievement level of 3 and above. Students who initially took the Florida Standards Assessment (FSA) version of the Algebra I EOC in spring 2015 were required to continue with that test.


## FSA Algebra I EOC

o Pass rate: Table 3 separately lists for participants and non-participants, the total number of students, and the number and percent of students who passed the end of summer FSA Algebra I EOC exam, by EOC grade.

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

| EOC |  |  |  | Participation |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  |  | Participants |  |  | Non-Participants |  |  |
|  | Pass |  |  | Pass |  |  | Pass |  |  |
| Grade | Total | n | \% | Total | n | \% | Total | n | \% |
| 7 | 12 | 8 | 66.7 | -- | -- | -- | 12 | 8 | 66.7 |
| 8 | 73 | 52 | 71.2 | 6 | 0 | 0.0 | 67 | 52 | 77.6 |
| 9 | 1,607 | 295 | 18.4 | 894 | 123 | 13.8 | 713 | 172 | 24.1 |
| 10 | 315 | 69 | 21.9 | 48 | 11 | 22.9 | 267 | 58 | 21.7 |
| 11 | 29 | 9 | 31.0 | 6 | 5 | 83.3 | 23 | 4 | 17.4 |
| 12 | 3 | 1 | 33.3 | -- | -- | -- | 3 | 1 | 33.3 |
| Total | 2,039 | 434 | 21.3 | 954 | 139 | 14.6 | 1,085 | 295 | 27.2 |

- A total of $14.6 \%$ of the students who completed the course, passed the end of summer FSA Algebra I EOC exam compared to $27.2 \%$ of the students who did not attend.
- Overall pass rates were much higher in Grades 7 and 8.

0 Effect: A statistical analysis of students test scores did not find participating $9^{\text {th }}$ and $10^{\text {th }}$ graders to be significantly more likely to pass the FSA summer Algebra 1 EOC than their counterparts who did not take the course.

- Ninth graders classified as gifted were more than 2.5 times more likely to pass the test than students who were not so classified.
- No other significant effects for ninth and tenth grade students were found.
- There were insufficient data to analyze programmatic effects at any other grade.


## NGSSS Algebra I EOC

0 Pass rate: Table 4 separately lists for participants and non-participants, the total number of students, and the number and percent of students who passed the end of summer NGSSS Algebra 1 EOC exam, by EOC grade.

Table 4. Pass Rates for the End of Summer Algebra I EOC/NGSSS Examination by Grade

| EOC |  |  |  | Participation |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  |  | Participants |  |  | Non-Participants |  |  |
|  | Pass |  |  | Pass |  |  | Pass |  |  |
| Grade | Total | n | \% | Total | n | \% | Total | n | \% |
| 9 | 3 | 0 | 0.0 | -- | -- | -- | 3 | 0 | 0.0 |
| 10 | 23 | 1 | 4.3 | 3 | 0 | 0.0 | 20 | 1 | 5.0 |
| 11 | 127 | 22 | 17.3 | 13 | 2 | 15.4 | 114 | 20 | 17.5 |
| 12 | 20 | 2 | 10.0 | -- | -- | -- | 20 | 2 | 10.0 |
| Total | 173 | 25 | 14.5 | 16 | 2 | 12.5 | 157 | 23 | 14.6 |

- Only 16 students who completed the course were eligible to take the NGSSS EOC. Of those students, $12.5 \%$ passed the end of summer NGSSS Algebra I EOC exam.
- Pass rates were highest in Grade 11.

0 Effect: Eleventh grade students who completed the program were not significantly more likely to pass the summer NGSSS Algebra 1 EOC posttest than their counterparts who did not take the course.

## 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 5 lists the total number of courses followed by the number and percent of courses for which students registered and completed the component (i.e., entered within the first two days of summer school and did not withdraw prior to the end of summer school), registered and withdrew prior to completion, and registered but did not participate in the component.

Table 5. Participation in the Credit Recovery Component

| Summer Grade | Courses <br> Enrolled | Completion |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full ${ }^{\text {b }}$ |  | Partial ${ }^{\text {c }}$ |  | None ${ }^{\text {d }}$ |  |
|  |  | n | \% | n | \% | n | \% |
| 6 | 528 | 343 | 62.6 | 47 | 8.6 | 158 | 28.8 |
| 7 | 1,728 | 1,146 | 66.3 | 116 | 6.7 | 466 | 27.0 |
| 8 | 1,918 | 1,433 | 74.7 | 127 | 6.6 | 358 | 18.7 |
| Total ${ }^{\text {a }}$ | 4,194 | 2,922 | 69.7 | 290 | 6.9 | 982 | 23.4 |

Note. Counts are duplicated as students could have attempted multiple courses. ${ }^{\text {a }}$ Includes a small number of ninth graders. ${ }^{\text {b }}$ Students who completed the component. ${ }^{\text {b }}$ Students who participated and withdrew prior to completion. ${ }^{d}$ Students who initially registered but did not attend (i.e., no shows).
o Over 4,000 courses were attempted by students, many of whom took more than one. Over 2,900 courses were completed.
o Of the courses attempted, nearly $70 \%$ of were completed by $7^{\text {th }}$ graders and nearly $80 \%$ were completed by $8^{\text {th }}$ graders.

- Course Completion. Table 6 lists the academic grades earned during summer school by the students who completed the component and subsequently were awarded credit, by subject area.

Table 6. Academic Grades Earned by Students Who Completed the Component by Subject Area

|  | Number Completed | Percent <br> Graded | Final Grade |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | A |  | B |  | C |  | D |  |
|  |  |  | n | \% | n | \% | n | \% | n | \% |
| Language Arts | 492 | 96.3 | 38 | 8.0 | 228 | 48.1 | 164 | 34.6 | 36 | 7.6 |
| Mathematics | 1,088 | 96.6 | 68 | 6.5 | 326 | 31.0 | 442 | 42.1 | 193 | 18.4 |
| Science | 521 | 97.1 | 65 | 12.8 | 221 | 43.7 | 196 | 38.7 | 18 | 3.6 |
| Social Studies | 821 | 96.3 | 70 | 8.8 | 312 | 39.4 | 312 | 39.4 | 75 | 9.5 |
| Total | 2,922 | 96.6 | 241 | 8.5 | 1,087 | 38.5 | 1,114 | 39.5 | 322 | 11.4 |

o Nearly all of the students who completed the courses earned grades.
o Students who took language arts and science courses earned the highest percentage of A and B grades.
o More than $45 \%$ of the students who completed the component earned grades of B or higher.
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) Reading Plus and (b) a variety of Internet-based software applications accessed through the Student Portal.

## - Reading Plus:

o Usage: Table 7 lists the number of students that used Reading Plus, 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.

Table 7. Reading Plus Summer Usage

|  |  | Percentiles |  |
| :---: | ---: | ---: | ---: |
| Grade | n | 50 | 95 |
| 01 | 3 | 1.03 | -- |
| 02 | 40 | 1.17 | 7.02 |
| 03 | 146 | 1.34 | 7.50 |
| 04 | 235 | 1.74 | 7.98 |
| 05 | 83 | 3.25 | 12.63 |
| 06 | 56 | 4.52 | 9.91 |
| 07 | 54 | 4.37 | 11.09 |
| 08 | 50 | 3.10 | 9.07 |
| 09 | 45 | 0.65 | 9.11 |
| 10 | 35 | 3.42 | 12.31 |
| 11 | 29 | 0.62 | 12.54 |
| 12 | 6 | 4.32 | -- |
| Total | 782 | 2.16 | 9.57 |

- Reading Plus was used by nearly 150 students in Grade 3, nearly 250 students in Grade 4 , and around 50 students in Grades 5 through 11. Around half of the students used the software for fewer than 2 hours, and $95 \%$ used it for fewer than 10 hours all summer.
o Impact: The iReady diagnostic assessment, administered to all students in grades K-8 in fall 2016, was designated as the outcome measure. As nearly $80 \%$ of the students who used Reading Plus during the summer subsequently attended charter schools that did not utilize the iReady diagnostic, insufficient outcome data were available to conduct an impact analysis.
- Web-based 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 with the Links to Learning applications shaded.
- 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. Access to Reading Plus (analyzed separately) is not included in this total. Figure 1 pictures the duplicated and unduplicated number of visits to the page during each of the days of the summer session, July 5 through August 1 includes weekends.


Figure 1. Daily web site visits.

- On a typical day, around 166 students visited the page between two and three times each.
- The number of students who visited were highest during the beginning of the week and lowest on weekends.

Types: The Web-based applications are categorized by subject area in Table 8.
Table 8. Number and Percent of iLearning on the Go Applications by Subject Area

| Subject | Number | Percent |
| :--- | ---: | ---: |
| Mathematics | 33 | 25.2 |
| Science | 29 | 22.1 |
| Language Arts/Reading | 26 | 19.8 |
| Social Studies | 21 | 16.0 |
| Computer Technology | 11 | 8.4 |
| Arts \& Music | 7 | 5.3 |
| Foreign Language | 4 | 3.1 |
| Total | 131 | 100.0 |

- A total of 131 applications were offered to students.
- Mathematics and Science accounted for $25.2 \%$ and $22.1 \%$ of the offerings.
- Language Arts, $19.8 \%$, and Social Studies, $16.0 \%$, were only slightly less offered.
- Art and Music and Foreign language saw the fewest offerings.

Users: Usage of the program is broken down by grade level and subject area in Table 9.
Table 9. Users' Access by Grade Level and Subject ( $n=6,208$ )

| Grade | n | $\%$ | Subject | n | $\%$ |
| :---: | ---: | ---: | :--- | ---: | ---: |
| 1 | 337 | 5.6 | Language Arts/Reading | 2,013 | 33.2 |
| 2 | 513 | 8.5 | Mathematics | 1,888 | 31.1 |
| 3 | 751 | 12.4 | Science | 543 | 8.9 |
| 4 | 764 | 12.6 | Arts \& Music | 446 | 7.4 |
| 5 | 723 | 11.9 | Social Studies | 195 | 3.2 |
| 6 | 550 | 9.1 | Computer Technology | 166 | 2.7 |
| 7 | 565 | 9.3 | Foreign Language | 110 | 1.8 |
| 8 | 633 | 10.4 |  |  |  |
| 9 | 352 | 5.8 |  |  |  |
| 10 | 416 | 6.9 |  |  |  |
| 11 | 249 | 4.1 |  |  |  |
| 12 | 215 | 3.5 |  |  |  |

- The page was most often accessed by students who were in Grades 3-5 and 8.
- Language Arts/Reading and Mathematics were the subjects accessed the most often.

Most Popular: The programs accessed most often are listed in Table 10.
Table 10. Programs Accessed Most Often ( $\mathrm{n}=6,208$ )

|  | Table 10. Programs Accessed Most Often (n=6,208) |  |  |
| :--- | ---: | ---: | :---: |
| Title | $n$ | $\%$ | Content |
| Power My Learning | 1,170 | 19.3 | Multiple |
| Achieve 3000 | 582 | 9.6 | Language Arts/Reading |
| MyOn | 428 | 7.1 | Language Arts/Reading |
| Reflex | 405 | 6.7 | Mathematics |
| Gizmos | 315 | 5.2 | Science |
| Florida Virtual Curriculum Marketplace | 204 | 3.4 | Computer Technology |
| Math Jeopardy, Millionaire, Money and Math Games | 181 | 3.0 | Mathematics |
| Math Games | 179 | 2.9 | Mathematics |
| Penda Learning | 179 | 2.9 | Mathematics |
| FCAT 2.0 Reading | 146 | 2.4 | Language Arts/Reading |
| For telling a good story, explore narratives, then | 116 | 1.9 | Language Arts/Reading |
| Arts and Music Games | 98 | 1.6 | Arts \& Music |
| Language Arts Games | 89 | 1.5 | Language Arts/Reading |
| SAT/ACT National Test Preparation | 89 | 1.5 | Mathematics |
| Math Interactive | 74 | 1.2 | Mathematics |
| Carnegie Learning | 73 | 1.2 | Mathematics |
| Old Fashioned Spelling Bee | 72 | 1.2 | Language Arts/Reading |
| Arthur - Crank It Up! | 67 | 1.1 | Arts \& Music |
| PBS Barney and Friends: Story time | 67 | 1.1 | Language Arts/Reading |
| Science Interactive | 67 | 1.1 | Science |

- Power My Learning, with $19.3 \%$ of visits across subject areas, was by far the most popular application.
- The most visited applications were those that addressed content in Language Arts and Mathematics.


## 7. What are the principal conclusions of this report?

Overall, the results for the Summer Programs were mixed. The finding for the Literacy for Rising ThirdGrade Students program is consistent with that one found for the Third Grade Summer Reading Camps ${ }^{1}$; the most struggling rising third graders were helped the most from having attended the sessions. However, Algebra I remediation did not significantly improve the odds of passing the End of Course exam for summer participants. The paucity of usage and outcome data precluded any impact assessment of the out-of-class software component, but nearly 200 students per day made used of these resources in summer 2016.

| Title | URL | Grades <br> Accessed |
| :---: | :---: | :---: |
| Arts \& Music |  |  |
| Arthur - Crank It Up! | http://pbskids.org/arthur/games/crankitup/index.html | 01--04 |
| Arts and Music Games | http://www.playkidsgames.com/ | 02--06 |
| Create a Movie Step by Step: Screenwriting; Direct | http://www.learner.org/interactives/cinema/index.html | 07--09 |
| Curious George Games, Printables, Video Clips | http://pbskids.org/curiousgeorge/games/\#1 | 02--06 |
| Fun and Educational Website for Teens | http://www.ipl.org/div/teen/ | 07--12 |
| Power My Learning | http://powermylearning.com/directory/art | 01--12 |
| The Art of M.C. Escher: Math to Create Beautiful-a | http://www.mathacademy.com/pr/minitext/escher/ | 10--12 |
| Computer Technology |  |  |
| Computer Science Activities | http://www.csunplugged.org/activities | 12--12 |
| Computer Science for Fun | http://www.cs4fn.org/magic/ | 10-10 |
| Florida Virtual Curriculum Marketplace | http://www.learning.com/floridavcm/ | 01--12 |
| Free Microsoft Software for Students | https://www.dreamspark.com/\# | 10--12 |
| Fun and Educational Website for Teens | http://www.ipl.org/div/teen/ | 07--10 |
| Learning to Code | http://www.codecademy.com/\#!/exercises/0 | 10--12 |
| Library of Congress Collections on Technology \& Science | http://www.loc.gov/topics/science.php | 10--10 |
| Robo Tech Ed | http://www.roboteched.net/ | 10--12 |
| TED Talks | http://www.ted.com/ | 11--11 |
| Using Technology to Solve World's Problems | http://www.imaginecup.us/Students/Index.aspx\#fbid=_ryTM-6bSLN | 10--12 |
| Foreign Language |  |  |
| Brain Training Games | http://www.travlang.com/languages/ | 09--12 |
| Destinos - Travel the World and Learn Spanish | http://www.learner.org/series/destinos/ | 10-12 |
| Florida Virtual Curriculum Marketplace | http://www.learning.com/floridavcm/ | 01--12 |
| Languages for Travelers | http://www.travlang.com/languages/ | 09--12 |
| Language Arts/Reading |  |  |
| Academic English | http://www.voanews.com/learningenglish/theclassroom/activities/\# | 10--12 |
| Achieve 3000 | http://www.kidbiz3000.com | 02--12 |
| Create Your Own Puzzles | http://www.discoveryeducation.com/free-puzzlemaker/?CFID=40940\&CFTOKEN=28857756 | 10--10 |
| Curious George Games, Printables, Video Clips | http://pbskids.org/curiousgeorge/games/\#1 | 03--06 |
| Elements of Literature Using Interactive Activities | http://www.learner.org/interactives/literature/index.html | 10--12 |
| Essay Writing - Interactive | http://www.readwritethink.org/files/resources/interactives/essaymap/ | 10--12 |
| FCAT 2.0 Reading | http://student.education2020.com | 06-09 |

Table A, continued

| Title | URL | Grades <br> Accessed |
| :---: | :---: | :---: |
| Language Arts/Reading, continued |  |  |
| Florida Virtual Curriculum Marketplace | http://www.learning.com/floridavem/ | 01-09 |
| For telling a good story, explore narratives, then | http://www.learner.org/interactives/story/index.html | 02--07 |
| Fun and Educational Website for Teens | http://www.ipl.org/div/teen/ | 07--12 |
| Grammar Lessons for Students; Idioms; Phrasal Verb | http://www.eslcafe.com/ | 08--12 |
| Interactive Dictionaries: Idioms; Health; Business | http://www.voanews.com/learningenglish/theclassroom/interactive/ | 07--12 |
| Language Arts Games | http://www.playkidsgames.com/ | 02-06 |
| Language Arts Interactive | http://www.learner.org/interactives/ | 01--11 |
| Literature to Go ~ Online Stories \& Poems | http://etc.usf.edu/lit2go/ | 11--11 |
| Magazine, Website, \& Book by Teens | http://www.teenink.com/ | 10-10 |
| MyOn | http://www.myon.com | 01--09 |
| Myths, Folktales, \& Fairy Tales | http://teacher.scholastic.com/writewit/mff/index.htm | 10--10 |
| Old Fashioned Spelling Bee | http://www.learner.org/interactives/spelling/index.html | 02--11 |
| PBS Barney and Friends: Story time | http://pbskids.org/barney/children/games/index.html | 01--04 |
| SAT/ACT National Test Preparation | http://student.education2020.com | 10--12 |
| Stories read by actors | http://www.Storylineonline.net | 01--09 |
| Texting101 | http://www.voanews.com/learningenglish/theclassroom/activities/ | 10-10 |
| Topic-Based English Language Practice | http://www.eslpartyland.com/students/inter.htm | 10-12 |
| Young Writers Program | http://ywp.nanowrimo.org/ | 10--12 |
| Mathematics |  |  |
| A Treasury of Modern and Classic Puzzles | http://www.puzzles.com/PuzzlePlayground/WelcomeToPuzzlePlayground.htm | 10--11 |
| A+ Math Games | http://www.aplusmath.com/Games/index.html | 10--12 |
| Absurd Math: An Interactive Mathematical Problem-S | http://www.learningwave.com/abmath/ | 10--11 |
| American Mathematical Society's News, Publications | http://www.ams.org/profession/student | 10--12 |
| Area of a triangle | http://illuminations.nctm.org/ActivityDetail.aspx?id=48 | 03--06 |
| Carnegie Learning | https://mdcpsportalapps2.dadeschools.net/MDCPSMainSSO/Redirector.aspx?SSOID=Carnegie | 07--09 |
| Curious George Games, Printables, Video Clips | http://pbskids.org/curiousgeorge/games/\#1 | 02--06 |
| Edgenuity | https://mdcpsportalapps2.dadeschools.net/MDCPSMainSSO/redirector.aspx?ssoid=Edgenuity | 10--12 |
| Everyday Math | http://www.learner.org/interactives/dailymath/index.html | 10-12 |
| Explore Mathematicians' Efforts to Crack Fermat's | http://www.pbs.org/wgbh/nova/proof/ | 10--11 |
| Facts, Formulas, and Articles about Pi | http://personal.bgsu.edu/~carother/pi/Pi1.html | 10--12 |
| FCAT 2.0 Math | http://student.education2020.com | 07--09 |

Table A, continued

| Title | URL | Grades <br> Accessed |
| :---: | :---: | :---: |
| Mathematics, continued |  |  |
| Florida Virtual Curriculum Marketplace | http://www.learning.com/floridavcm/ | 07--12 |
| Interactive Geometry 3D Shapes: Surface area; volume | http://www.learner.org/interactives/ | 07--09 |
| Learn Metric Conversion | http://www.learner.org/interactives/ | 06--09 |
| Math Games | http://www.playkidsgames.com/ | 02--06 |
| Math Interactive | http://www.learner.org/interactives | 01--10 |
| Math is Fun! ~ Games | http://www.mathsisfun.com/games/index.html | 10--12 |
| Math Jeopardy, Millionaire, Money and Math Games | http://www.math-play.com | 01--12 |
| Math Khan Academy | http://www.khanacademy.org | 07--11 |
| Math Puzzles | http://www.mathpuzzle.com/ | 10--11 |
| Multiplication.com Games | http://www.multiplication.com/games | 10--12 |
| Penda Learning | https://www.pendalearning.com/?c=MIAMI | 05--11 |
| Probability | http://illuminations.nctm.org/ActivityDetail.aspx?id=79 | 05--09 |
| Puzzles, Quizzes, Cool Tools, \& Wonders of Math | http://www.math.com/ | 07--10 |
| Reflex | http://www.reflexmath.com | 03--09 |
| Reflex Math | http://www.reflexmath.com/trial | 03--09 |
| SAT/ACT National Test Preparation | http://student.education2020.com | 10--12 |
| The Math Forum - Ask Dr. Math \& Puzzles | http://mathforum.org/students/ | 01--10 |
| Time Tables Game | http://www.teachingtables.co.uk/timetable/tgame1.html | 11--12 |
| Trivia Quizzes | http://eveander.com/trivia/ | 10--12 |
| Volume | http://illuminations.nctm.org/ActivityDetail.aspx?id=6 | 04--09 |
| Science |  |  |
| Animals, Adaptations, \& the Galapagos Islands | http://teacher.scholastic.com/activities/explorations/adaptation/backyardscience.htm | 12--12 |
| Brain Games | http://news.discovery.com/human/discovery-news-games-120120.html | 10--12 |
| Build Your Own Ecosystem | http://www.learner.org/courses/envsci/interactives/ecology/ | 10--11 |
| Classify Insects | http://teacher.scholastic.com/activities/explorations/bug/index.htm | 11--11 |
| Coloring Book of emergency procedures from FEMA | http://www.ready.gov/kids | 03--07 |
| Curious George Games, Printables, Video Clips | http://pbskids.org/curiousgeorge/games/\#1 | 03--05 |
| Discover's Interactive Games, Virtual Labs, Videos | http://www.discoveryeducation.com/students/index.cfm?campaign=flyout_students\#\# | 12--12 |
| Discovery News | http://news.discovery.com/ | 10--12 |
| Earth structures: Plate tectonics, boundaries, sl | http://www.learner.org/interactives/dynamicearth/index.html | 08--09 |
| Energy Lab - Lab from The Habitable Planet: Energy | http://www.learner.org/courses/envsci/ | 07--07 |

Table A, continued

| Title | URL | Grades <br> Accessed |
| :---: | :---: | :---: |
| Science, continued |  |  |
| Environmental Choices | http://sciencenetlinks.com/media/filer/2011/10/07/powerup.swf | 04-07 |
| FCAT 2.0 Science | http://student.education2020.com | 08--09 |
| Florida Virtual Curriculum Marketplace | http://www.learning.com/floridavem/ | 01--11 |
| Fun and Educational Website for Teens | http://www.ipl.org/div/teen/ | 07--09 |
| Gizmos | http://www.explorelearning.com | 03--12 |
| Global Climate Change Interactive | http://climate.nasa.gov | 10--11 |
| Head Rush - Myth Busters Videos \& Games | http://headrush.discovery.com/\# | 12--12 |
| How to Improve Next Year's Environmental Record | http://www.learner.org/interactives/garbage/intro.html | 09--12 |
| Learn About DNA | http://www.learner.org/interactives/dna/index.html | 10--12 |
| Multimedia Physics | http://www.physicsclassroom.com/mmedia/ | 12--12 |
| Physics for the 21st Century | http://www.learner.org/courses/physics/ | 11--12 |
| Rock Cycle with Visuals | http://www.learner.org/interactives/rockcycle/index.html | 08-09 |
| Science Interactive | http://www.learner.org/interactives/ | 01--12 |
| Science Writing | http://teacher.scholastic.com/activities/sciencewriting/ | 11--12 |
| Smithsonian's Science Websites \& Games | http://smithsonianeducation.org/students/explore_by_topic/science_nature.html | 10--12 |
| Summer Science Fun - Collection of Interactive Gam | http://sciencenetlinks.com/collections/summer-learning/ | 11--11 |
| The Basics of the Periodic Table | http://www.learner.org/interactives/periodic/index.html | 10--10 |
| The Weather | http://www.learner.org/interactives/weather/index.html | 10--12 |
| Social Studies |  |  |
| 7 Wonders of the World | http://www.panoramas.dk/7-wonders/index.html | 11--11 |
| Ancient History Encyclopedia | http://www.ancient.eu.com/ | 10--12 |
| Black History in America | http://teacher.scholastic.com/activities/bhistory/index.htm | 11--12 |
| Curious George Games, Printables, Video Clips | http://pbskids.org/curiousgeorge/games/\#1 | 03-06 |
| Explore a Topic in Smithsonian's Museum of Natural | http://www.mnh.si.edu/explore.html | 10--12 |
| Fantasy Stock Market | http://www.fantasystockexchange.biz/ | 12--12 |
| Florida Virtual Curriculum Marketplace | http://www.learning.com/floridavcm/ | 01-09 |
| History Interactive | http://www.learner.org/interactives/ | 01--12 |
| History Timeline with Hands-On Activities | http://www.learner.org/interactives/historymap/index.html | 11--11 |
| Native American Cultures | http://teacher.scholastic.com/activities/explorer/native_americans/index.asp | 10--10 |
| Over 100 Online Encyclopedias and | http://www.encyclopedia.com/ | 11--11 |
| Price of Freedom - Americans at War | http://americanhistory.si.edu/militaryhistory/exhibition/flash.html | 11--11 |

Table A, continued

| Title | URL | Grades <br> Accessed |
| :---: | :---: | :---: |
| Social Studies, continued |  |  |
| Sleuthing to Figure out Historical Events | http://www.learner.org/interactives/historical/index.html | 10--10 |
| Smithsonian's History \& Culture Games | http://smithsonianeducation.org/students/explore_by_topic/history_culture.html | 11--12 |
| The Collapse of 4 Ancient Civilizations | http://www.learner.org/interactives/collapse/index.html | 11--12 |
| Travel Through Space | http://www.timewarptrio.com/ | 03--06 |
| Travel to past | http://americanhistory.si.edu/onthemove/games/game2/game2.html | 04--09 |
| USA 360 Degrees Virtual Tour | http://www.panoramas.dk/US/index.html | 11--11 |
|  | http://education.nationalgeographic.com/education/multimedia/interactive/maps-tools-gis- | 12--12 |
| Use Maps to Solve Problems \& Help Animals | action/?ar $\mathrm{a}=1$ |  |
| White House Interactive Tour | $\underline{\text { http://www.whitehouse.gov/about/inside-white-house/interactive-tour }}$ | 11--11 |

Note. Power My Learning offered to grades 1-12, the most popular of the applications is not shown, as it may have been accessed through either a dedicated link (https://mdcpsportalapps2.dadeschools.net/mdcpsmainsso/redirector.aspx?SSOID=Clever\&app shortname=powermylearning); or through one of the following five separate subject area links: http://powermylearning.com/directory/computer-programming, http://powermylearning.com/directory/language-arts,
http://powermylearning.com/directory/math, http://powermylearning.com/directory/science, and
http://powermylearning.com/directory/social-studies.


[^0]:    ${ }^{1}$ Urdegar, S.M. (2016). Third Grade Summer Reading Camps, 2016 evaluation. Miami, FL: Miami-Dade County Public Schools (in progress).

