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The 2018 Benchmark Report:

An Analysis of Emerging Trends In Student Chromebook Usage

An Inside Look at Student-Driven Device Usage

As technology usage in education has skyrocketed, so has the need to gain a deeper understanding of how technology is being utilized - both inside and outside of the classroom. GoGuardian's 2018 Benchmark Report gives you an inside look into organic student engagement and browsing patterns. The Benchmark Report analyzes the aggregate annonymous device usage of 5 million K-12 students across the country.

Methodology

GoGuardian analyzed student activity at home and at school across grade levels and subject areas based on Chromebook usage in the fall of 2016 and the fall of 2017. The top 500 educational sites were selected and analyzed using an index that equally weighted the percent of students who visited the websites and the percent of time spent on each site.

For the list of top trending sites, we focused on student-driven educational sites, and omitted LMS, SIS, and textbook publisher sites. The latter reflected curriculum and teacher-driven usage, and were not indicative of organic student engagement and browsing patterns. In addition, G Suite for Education sites and apps far surpassed other sites in usage metrics, which we believe speaks to the value Google apps bring to educators and students alike. We devoted a separate section to data related to G Suite, so as not to overshadow other findings.

Device Usage Categories: Inside and Outside of the Classroom

Student device usage can be broken down into three overarching categories:

1. G Suite for Education - including Google Docs, Sheets, Slides, etc.— account for 68.5% of total time spent by students on the top 100 sites.

2. Publishers and Learning Systems — including textbook publisher, LMS, and SIS sites — account for 11.3% of total time spent on the top 100 sites.

3. Student-driven educational sites account for 20.2% of total time spent on the top 100 sites. The list of top student-driven educational sites is included below, and reflects students' organic browsing patterns.

11.3%
Publisher, LMS, SIS

68.5%
Google Sites

20.2%
Top Education Sites
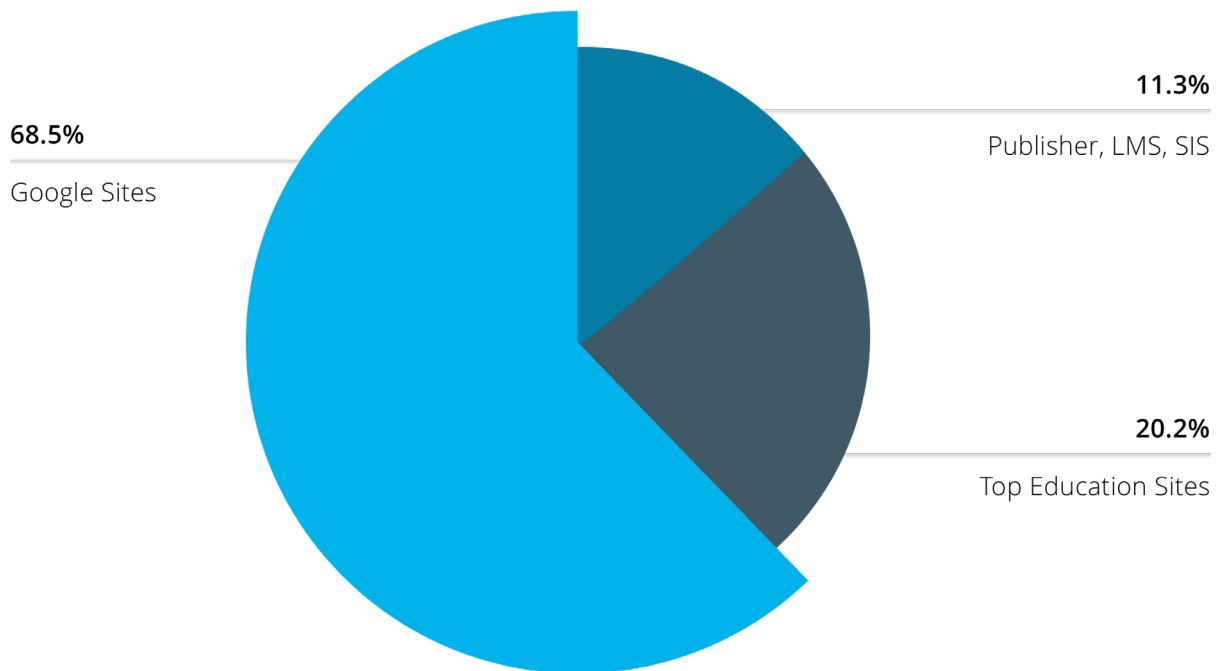
G Suite for Education

Six of the Top Ten Educational Sites

G Suite for Education (GSFE) far surpassed other sites and apps in student usage metrics, accounting for six of the top ten educational sites. G Suite continues to play a prominent and valuable role in America's classrooms — more than half the nation's primary and secondary school students use G Suite, as reported by the New York Times.

Average usage of time spent between Google Sites

1.9%
Google Sites

2.5%
Google Drive

4.7%
Google Mail

8%
Google Classroom

62.1%
Google Docs

20.8%
Google YouTube
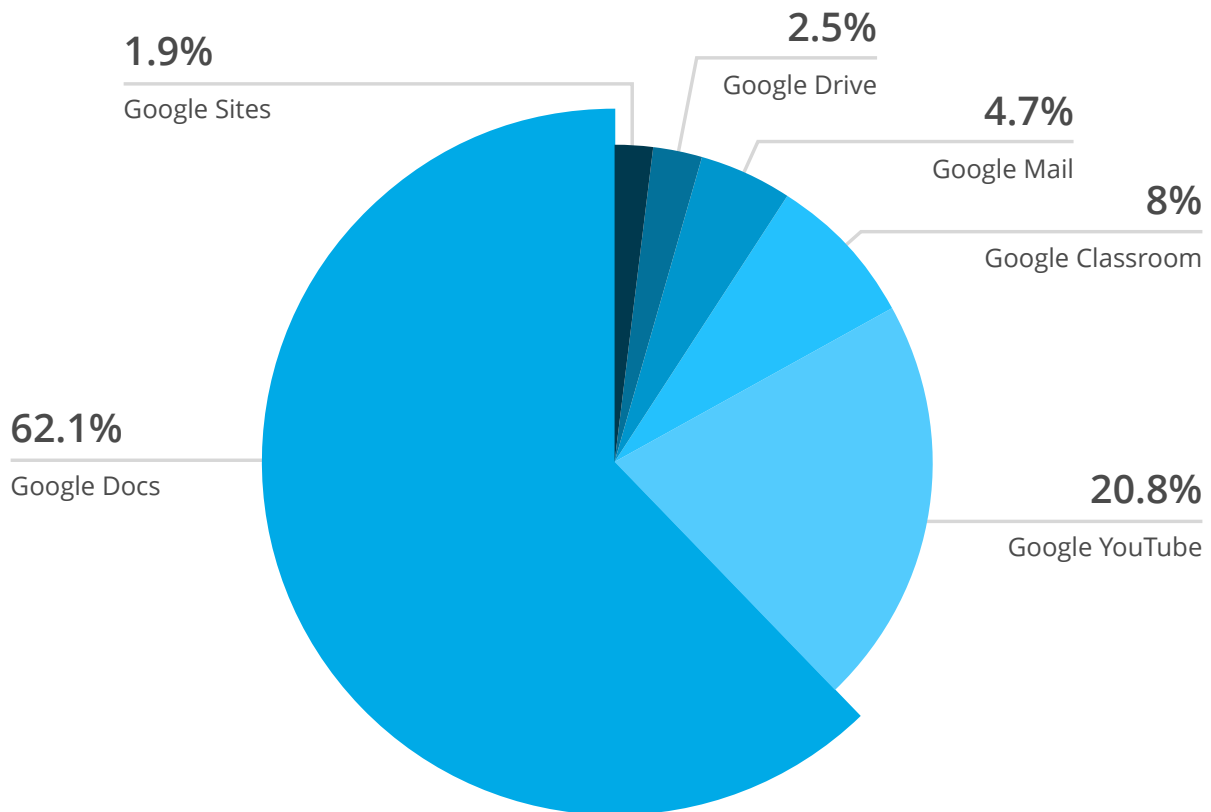
Educational Sites & Web Apps

What's Trending

GoGuardian analyzed the top 500 educational sites by subject and by grade level, based upon student activity on Chromebooks in the fall of 2016 and the fall of 2017. GoGuardian's research team selected the top trending sites in education, based upon an index that equally weighed the percent of students who visited the websites and the percent of time spent on each site.

Key Findings

- **Rise in interactive gamification:** Data trends indicated a rise in the gamification of digital learning, with Kahoot holding the #1 spot for Educational Sites overall and Cool Math Games taking the #1 spot for Trending Sites (which evaluated YoY growth).

- **Digitizing study patterns:** The popular study application Quizlet occupies the #2 spot on top educational sites overall, and the #1 spot for middle school and high school students. This is consistent with the larger edtech landscape, where digital flashcards, self-made quizzes, and online study tools are on the rise.

- **Personalized content:** Websites offering personalized learning experiences were prevalent across all grade levels, with Khan Academy in the top ten sites at the elementary, middle school, and high school grade levels.

- **Comparison by subject:** When separating the list by academic subject area, sites related to Language Arts and English were more common than any other subject area in the top 500 websites.

Educational Sites & Web Apps

Top Educational Sites by Time Spent

Top educational sites, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

#	NAME	CATEGORY	WEBSITE
1.	Kahoot	Games	View Site
2.	Quizlet	Quizzes	View Site
3.	Cool Math Games	Math	View Site
4.	Wikipedia	Encyclopedia	View Site
5.	ABCya!	Games	View Site
6.	Prodigy	Games	View Site
7.	Study Island	Study Aid	View Site
8.	Quizizz	Quizzes	View Site
9.	Dictionary.com	Dictionary	View Site
10.	Thesaurus.com	Thesaurus	View Site
11.	History Channel	History	View Site
12.	Newsela	Teaching Aid	View Site
13.	Edpuzzle	Teaching Aid	View Site
14.	Prezi	Online Presentations	View Site
15.	BrainPop	Teaching Aid	View Site
16.	BBC	News	View Site
17.	CNN	News	View Site
18.	Socrative	Student Assessment	View Site
19.	Scratch	Teaching Aid	View Site
20.	XtraMath	Math	View Site

Educational Sites & Web Apps

Top Educational Sites Trending Overall

Based upon year-over-year increase in students visiting the site and time spent.

#	NAME	CATEGORY	WEBSITE
1.	Cool Math Games	Math	View Site
2.	Renaissance	Study Assessment	View Site
3.	Quizzes	Quizzes	View Site
4.	Edpuzzle	Teacher Aid	View Site
5.	Scratch	Teaching Aid	View Site
6.	Study.com	Study Aid	View Site
7.	PhET	Math & Science	View Site
8.	Nitro Type	Typing	View Site
9.	Desmos	Graphing Calculator	View Site
10.	Grammarly	Grammar Aid	View Site
11.	Gizmos	Math Simulations	View Site
12.	Kami	PDF Editor	View Site
13.	StydySync	English Instruction	View Site
14.	The Guardian	News	View Site
15.	Soft School	Study Aid	View Site
16.	Time and Date	World Time & Calendars	View Site
17.	NCBI	Science	View Site
18.	Code	Computer Science	View Site
19.	Business Inside	News	View Site
20.	Forbes	News	View Site

Educational Sites & Web Apps

Top Educational Sites Trending by Grade Level

Top educational sites by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

Elementary School (Kindergarten–5th Grade)

#	NAME	CATEGORY	WEBSITE
1.	ABCya!	Games	View Site
2.	Cool Math Games	Math	View Site
3.	Kahoot	Games	View Site
4.	Prodigy	Math	View Site
5.	Wikipedia	Encyclopedia	View Site
6.	Quizlet	Quizzes	View Site
7.	History Channel	History	View Site
8.	Moby Max	Teaching Aid	View Site
9.	XtraMath	Math	View Site
10.	Khan Academy	Teaching Aid	View Site
11.	Kids A-Z	Teaching Aid	View Site
12.	TypingClub	Typing	View Site
13.	BrainPOP	Teaching Aid	View Site
14.	ReadWorks	Reading	View Site
15.	Spelling City	Literacy	View Site
16.	Math Playground	Math	View Site
17.	Dictionary.com	Dictionary	View Site
18.	Dreambox	Math	View Site
19.	Front Row	Teaching Aid	View Site
20.	PBS Kids	Kids Entertainment	View Site

Educational Sites & Web Apps

Top Educational Sites Trending by Grade Level

Top educational sites by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

Middle School (6th–8th Grade)

#	NAME	CATEGORY	WEBSITE
1.	Quizlet	Quizzes	View Site
2.	CoolMath Games	Math	View Site
3.	Khan Academy	Teaching Aid	View Site
4.	Quizizz	Quizzes	View Site
5.	Newsela	Reading	View Site
6.	Dictionary.com	Dictionary	View Site
7.	History BrainPOP	Teaching Aid	View Site
8.	Edpuzzle	Teaching Aid	View Site
9.	Thesaurus.com	Thesaurus	View Site
10.	History Channel	History	View Site
11.	Scratch	Teaching Aid	View Site
12.	Prodigy	Math	View Site
13.	PhET	Math & Science	View Site
14.	Moby Max	Teaching Aid	View Site
15.	Discovery Education	Teaching Aid	View Site

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Educational Sites & Web Apps

Top Educational Sites Trending by Grade Level

Top educational sites by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

High School (9th–12th)

#	NAME	CATEGORY	WEBSITE
1.	Quizlet	Quizzes	View Site
2.	Wikipedia	Encyclopedia	View Site
3.	Kahoot	Games	View Site
4.	CoolMath Games	Math	View Site
5.	Khan Academy	Teaching Aid	View Site
6.	History Channel	History	View Site
7.	Thesaurus.com	Thesaurus	View Site
8.	Prezi	Online Presentation	View Site
9.	Quizizz	Quizzes	View Site
10.	Dictionary.com	Dictionary	View Site
11.	Desmos	Graphing Calculator	View Site
12.	Edpuzzle	Teaching Aid	View Site
13.	The New York Times	News	View Site
14.	Study.com	Study Aids	View Site
15.	CNN	News	View Site

Educational Sites & Web Apps

Top Educational Sites Trending by Subject

Top educational sites trending by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

History and News

#	NAME	CATEGORY	WEBSITE
1.	Newsela	Reading	View Site
2.	BBC	News	View Site
3.	CNN	News	View Site
4.	The New York Times	News	View Site
5.	The Guardian	News	View Site
6.	Genius	Pop Culture	View Site
7.	Business Insider	News	View Site
8.	TCI	News	View Site
9.	Forbes	News	View Site
10.	Library of Congress	News	View Site
11.	Fox News	News	View Site
12.	iCivcs	News	View Site
13.	NPR	News	View Site

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Educational Sites & Web Apps

Top Educational Sites Trending by Subject

Top educational sites trending by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

Math

#	NAME	CATEGORY	WEBSITE
1.	Cool Math Games	Math	View Site
2.	Prodigy	Math	View Site
3.	XtraMath	Math	View Site
4.	Desmos	Graphing Calculator	View Site
5.	Math Playground	Math	View Site
6.	PhET	Math & Science	View Site
7.	ST Math	Math	View Site
8.	Gizmos	Math	View Site
9.	Hooda	Math	View Site
10.	Reflex	Math	View Site
11.	Math is Fun	Math	View Site
12.	Sumdog	Math	View Site
13.	Cool Math	Math	View Site
14.	Big Ideas Math	Math	View Site
15.	Multiplication	Math	View Site
16.	Imagine Math	Math	View Site
17.	Splash	Math	View Site
18.	First in Math	Math	View Site

Educational Sites & Web Apps

Top Educational Sites Trending by Subject

Top educational sites trending by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

Science

#	NAME	CATEGORY	WEBSITE
1.	PhET	Math & Science	View Site
2.	Gizmos	Math	View Site
3.	NCBI	Science	View Site
4.	Live Science	Science	View Site
5.	WebMD	Health	View Site
6.	Weather.com	Weather	View Site
7.	Nat Geo Kids	Science	View Site
8.	Sciencing	Science	View Site
9.	Mayo Clinic	Health	View Site

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Educational Sites & Web Apps

Top Educational Sites Trending by Subject

Top educational sites trending by grade level, based upon an index that equally weighted the percent of students visiting the site and percent of time spent.

English

#	NAME	CATEGORY	WEBSITE
1.	NoRedInk	Writing	View Site
2.	Lexia Reading Core5	English	View Site
3.	Spelling City	Literacy	View Site
4.	Archive 3000	Literacy	View Site
5.	Easy Bib	Bibliography	View Site
6.	Turnitin	Writing	View Site
7.	E Notes	Study Guides	View Site
8.	Vocabulary	Vocabulary	View Site
9..	SparkNotes	Reading Aid	View Site
10.	Goodreads	Book Recommendation	View Site
11.	Merriam-Webster	Dictionary & Thesaurus	View Site
12.	Grammarly	Grammar Aid	View Site
13.	StudySync	English Instructions	View Site
14.	Starfall	Reading	View Site
15.	CommonLit	Literacy	View Site

Device Usage at School and Home

The Rise of Chromebooks in Education

As reported by Edsurge and The Journal, Google Chromebooks have captured the dominant share of the K-12 mobile computing market in the United States for the second year in a row. Google Chrome OS's share of school-purchased mobile devices surged to a 59.8% share in 2017, up 21 percentage points from 2014.
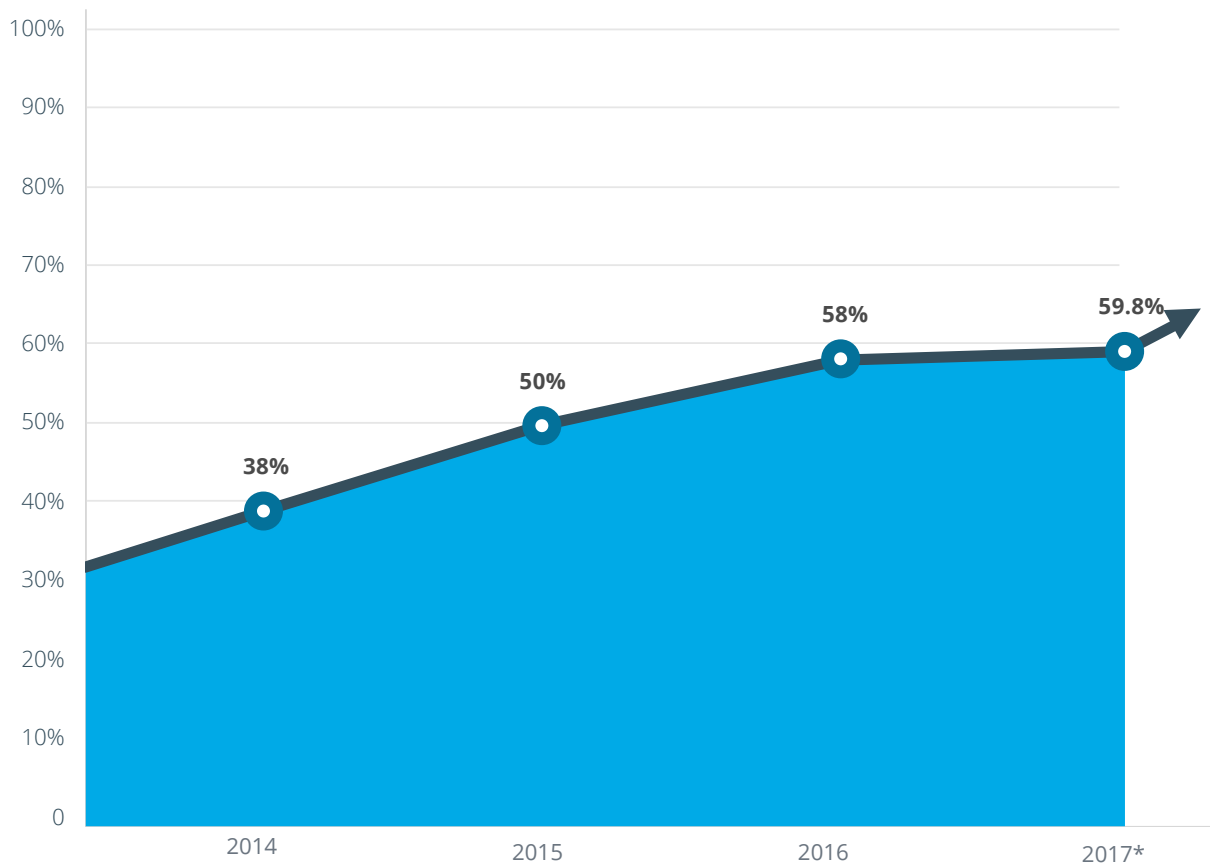

Source: Futuresource Consulting as reported by journal.com and edsurge.com
* Total sales data as of Q3 2017

Device Usage at School and Home

More Students are Bringing Devices Home

GoGuardian analyzed the aggregate anonymous data of 5 million K-12 students, and found that the percent of student devices being used at home steadily increased from the fall of 2016 to the fall of 2017 across grade levels. The largest percentage increase in device usage at home was at the elementary school level, increasing 132%, from 11.7%vin 2016 to 27.2% in 2017. Overall, Chromebook usage at home was more prevalent in the higher grade levels: 53.4% of middle school devices, and 57.1% of high school devices were used by students at home in 2017.
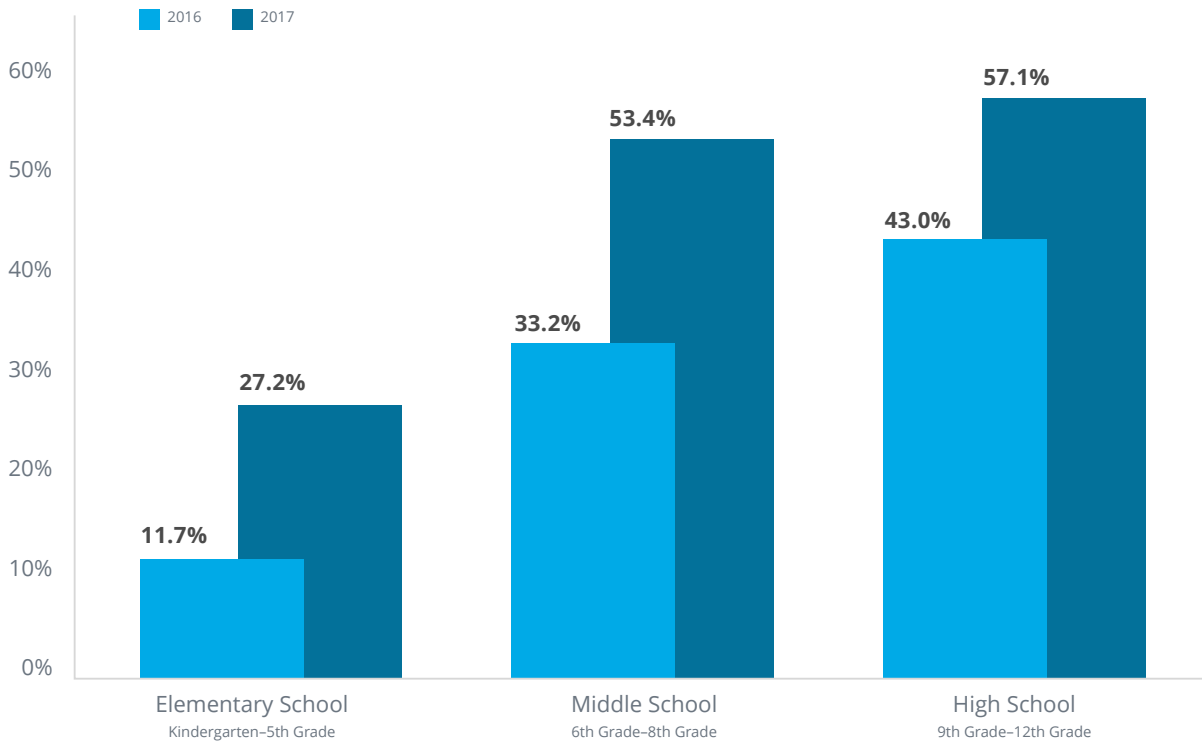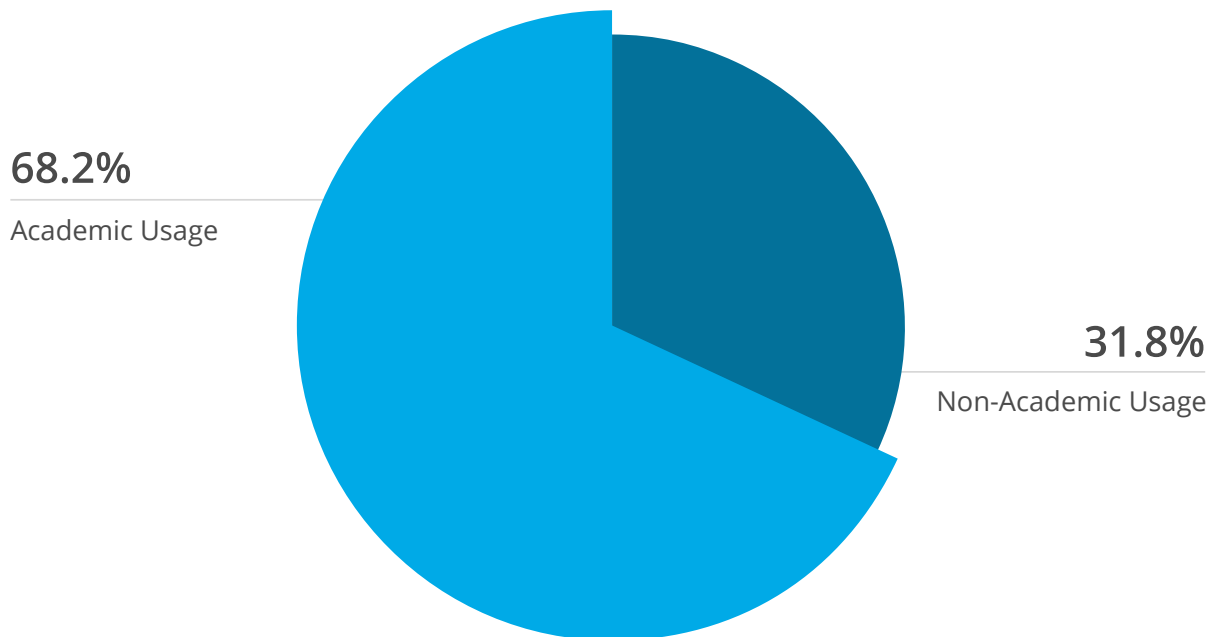
Device Usage at School and Home

After the School Day Ends: A Look Into Academic & Non-Academic Device Usage

Websites visited by students outside of school were separated into two key categories: Academic and Non-Academic. Web sites were classified as Academic if their primary application directly related to K-12 curriculum and learning.

Key Finding: At home, students spent 68.2% of their time on Academic sites, and 31.8% of their time on Non-Academic sites.

68.2%
Academic Usage

31.8%
Non-Academic Usage

Device Usage at School and Home

Chromebook Usage at Home: Time Spent By Subject Area

When analyzing time spent on Academic sites at home, Math far exceeds any other subject area in terms of percent of overall student time spent. 32.87% of student time was spent on Math sites, 15.07% on History and News sites, 7% on English and Language Arts sites, and only 1.585 on Science sites.
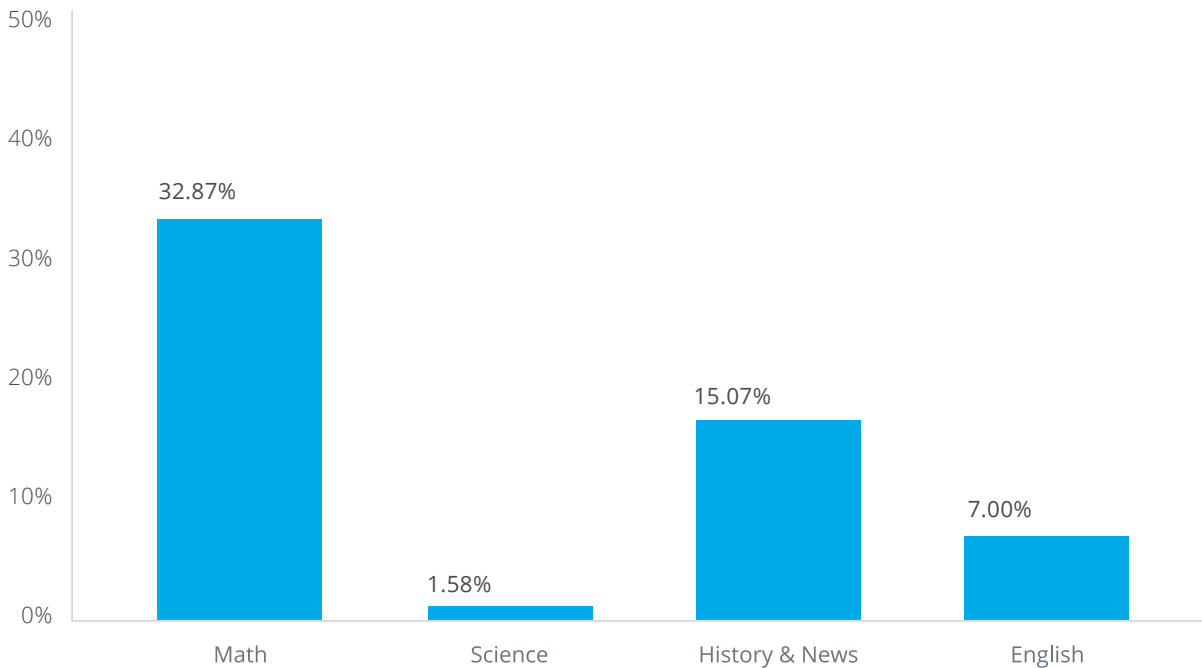
Device Usage at School and Home

Top sites at home

As noted in "Methodology" above, we focused on student-driven educational sites, and omitted LMS, SIS, and textbook publisher sites. The latter reflected curriculum and teacher-driven usage, and were not indicative of organic student engagement and browsing patterns. We also dedicated a separate section above to G Suite for Education sites and removed them from this list, so as not to overshadow other findings.

#	NAME	CATEGORY	WEBSITE
1.	Netflix	Entertainment	View Site
2.	Spotify	Music	View Site
3.	Pandora	Music	View Site
4.	Facebook	Social Media	View Site
5.	Animal Jam	Games	View Site
6.	Cool Math Games	Games	View Site
7.	Quizlet	Quizes	View Site
8.	Prodigy	Games	View Site
9.	ABCya!	Games	View Site
10.	Khan Academy	Teaching Aid	View Site
11.	ST Math	Math	View Site
12.	Kahoot	Games	View Site
13.	Dreambox	Math	View Site
14.	EdPuzzle	Teaching Aid	View Site
15.	StudySync	English Instruction	View Site
16.	Quizizz	Quizzes	View Site
17.	Scratch	Teaching Aid	View Site
18.	MathXL	Math	View Site
19.	Newsela	Reading	View Site
20.	Wikipedia	Encyclopedia	View Site
21.	Kids A-Z	Teaching Aid	View Site

Device Usage at School and Home

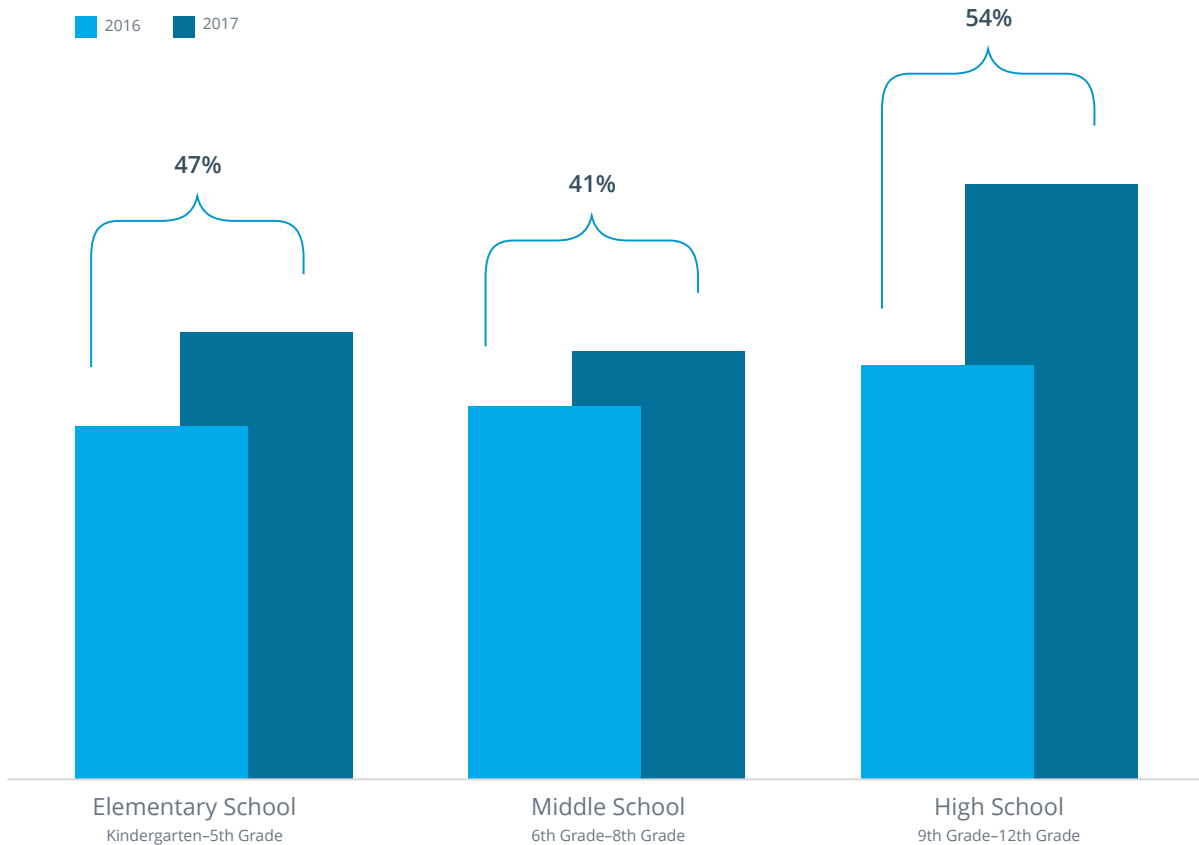**Take home encourages digital citizenship**

The rise in students taking home devices points to a larger movement focused on achieving greater equity and accessibility to technology in schools across the country. As detailed in the [U.S. Department of Education's National Education Technology Plan](), students need frequent and appropriate access to technology to effectively communicate, research, create, prepare for the workforce, and acquire valuable digital citizenship skills. Digital citizenship isn't just about students embracing technology - but about students using technology in such a way that is appropriate, responsible, intelligent, and safe. Taking devices home encourages learning within appropriate boundaries, effectively extending the school day and enabling students to practice good digital citizenship at home and at school.

Chromebook Usage & Filtering
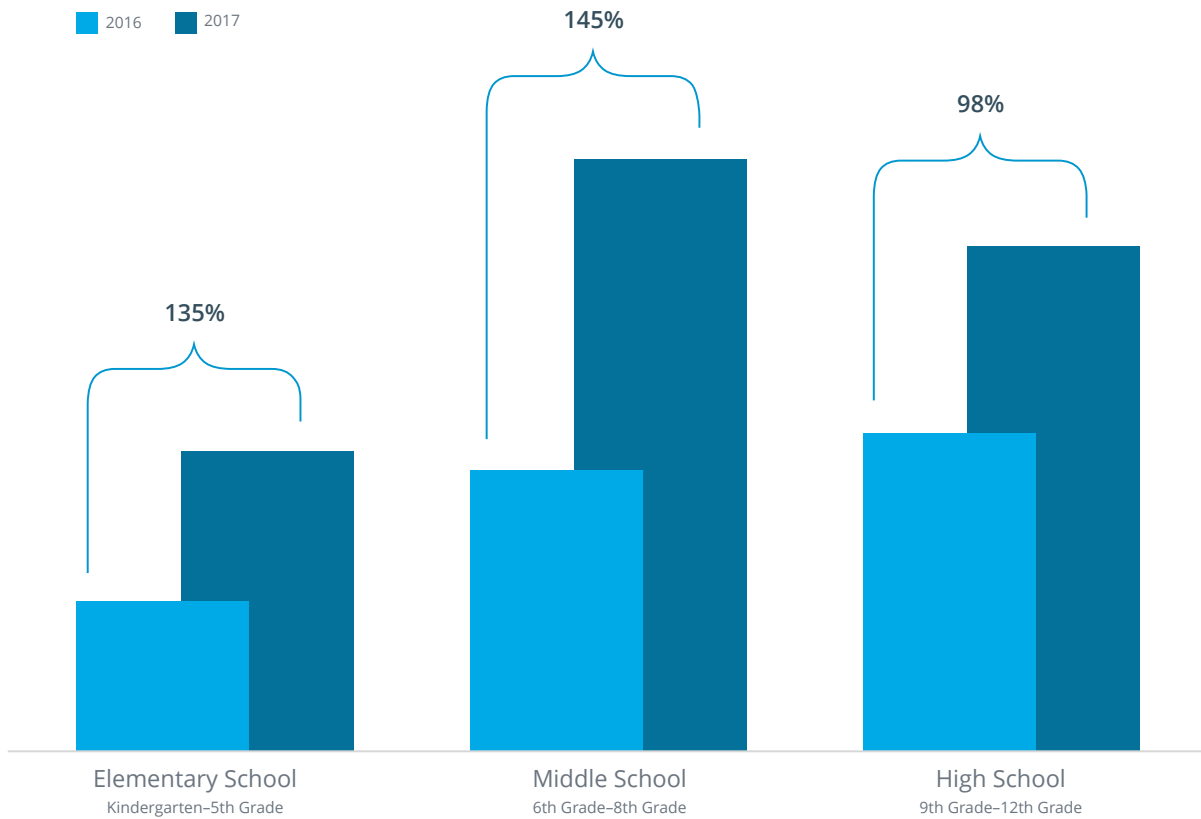
The Rise of Students Using Chromebooks

From 2016 to 2017, the number of students on Chromebooks steadily increased across grade levels; the highest growth was among high school students. The number of high school students using Chromebooks grew at a rate of 54%, the number of middle school students on Chromebooks grew 41%, and the number of elementary school students on Chromebooks grew 47%.

Legend: ■ 2016 ■ 2017

- **47%** — Elementary School, Kindergarten–5th Grade
- **41%** — Middle School, 6th Grade–8th Grade
- **54%** — High School, 9th Grade–12th Grade

Chromebook Usage & Filtering

Average Number of Sites Visited Per Month

The data from 5 million students shows that students are visiting more unique websites and webpages year-over-year. Not only was there a demonstrable increase in the number of students using devices and time spent on school devices from 2016 to 2017, but there was also a hike in the amount of sites visited per student. The number of sites visited monthly, per student, grew 98% among high school students, 145% among middle school students, and 135% among elementary school students.


Legend: 2016, 2017

135% — Elementary School, Kindergarten–5th Grade
145% — Middle School, 6th Grade–8th Grade
98% — High School, 9th Grade–12th Grade

Chromebook Usage & Filtering

Content Filtering: Average Number of Sites Blocked Per Month

In order to focus students on school-related tasks, comply with federal and state laws, and enable students to explore the internet safely, most schools have almost universally adopted online filtering. The 2018 Benchmark Report examines the number and growth of sites blocked by filters, as well as the most commonly blocked sites on school devices. The data shows that the average number of websites blocked per month **more than doubled** from 2016 to 2017 across grade levels.

The average number of sites blocked per month grew 193% for elementary school students, 140% for middle school students, and 173% for high school students. Interestingly, the growth rate of blocked sites was highest at the elementary school level, which also reflects the increase in elementary school students on devices from 2016 to 2017. The middle school grade level exhibited the highest number of blocked sites, as well as the highest number of sites visited on a monthly basis.

15.6%
Elementary

43.6%
High School

40.8%
Middle School
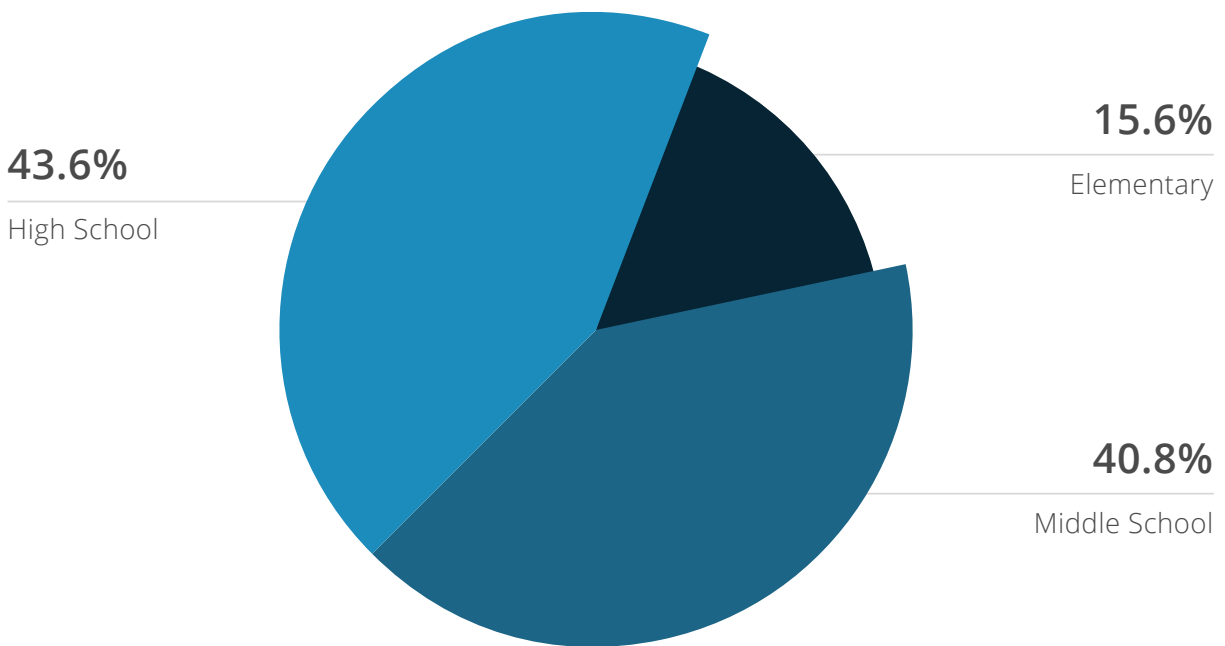
Chromebook Usage & Filtering
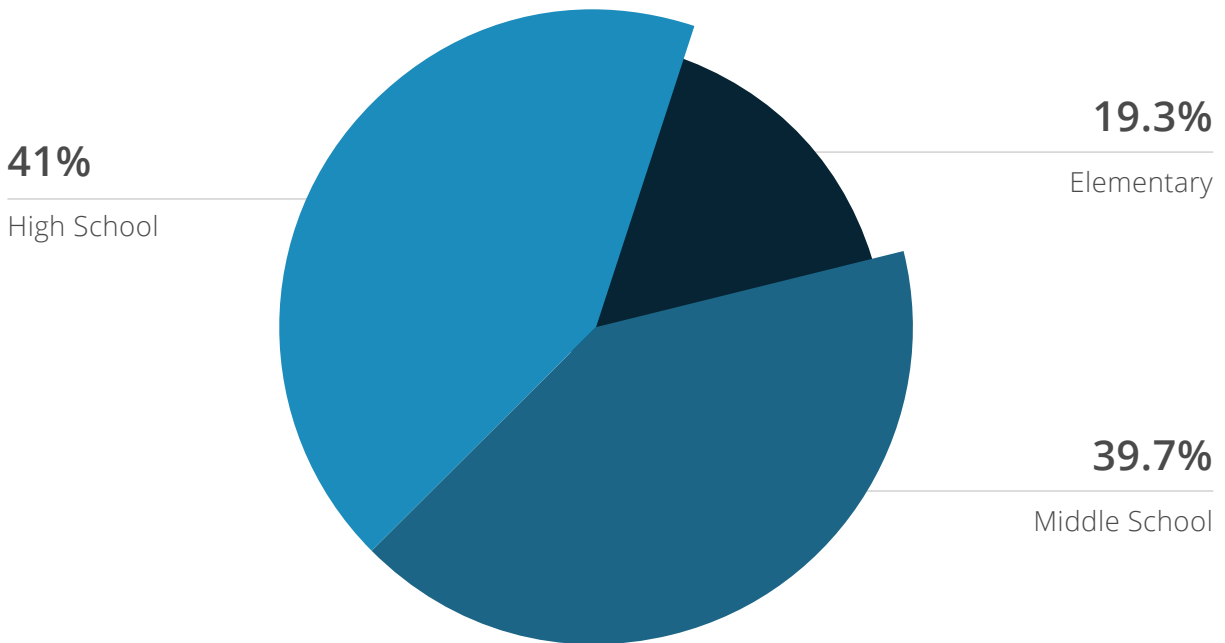
Who is getting blocked in 2016?

In 2016, 43.8% of students blocked by internet filtering were high school students, 40.8% were in the middle school grades, and only 15.6% of students were elementary school students. These percentages were proportional to the grade level breakdown of students using Chromebooks in 2016.

43.6%
High School

15.6%
Elementary

40.8%
Middle School
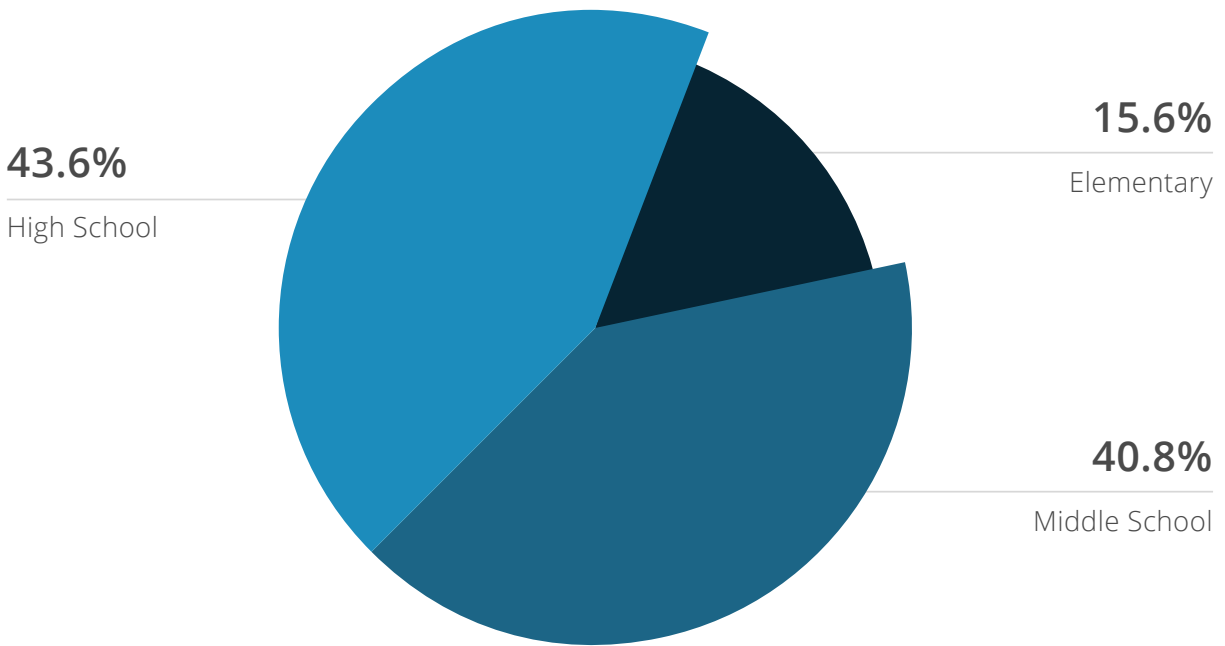
Chromebook Usage & Filtering

Who is getting blocked in 2017?

In 2017, there was less of a disparity between grade levels in regards to students getting blocked on Chromebooks. The greatest percentage of blocked students was still high school students at 41%, with middle school students shortly behind at 39%, and 19.3% of students blocked in the elementary school grades.

19.3%
Elementary

41%
High School

39.7%
Middle School

Chromebook Usage & Filtering

The Top 25 Blocked Sites

As noted in "Methodology" above, we focused on student-driven educational sites, and omitted LMS, SIS, and textbook publisher sites. The latter reflected curriculum and teacher-driven usage, and were not indicative of organic student engagement and browsing patterns. We also dedicated a separate section above to G Suite for Education sites and removed them from this list, so as not to overshadow other findings.

#	NAME	CATEGORY	WEBSITE
1.	Cool Math Games	Games	Visit Site
2.	Typing.com	Typing	Visit Site
3.	Facebook	Social Media	Visit Site
4.	Crazy Games	Games	Visit Site
5.	SparkNotes	Reading Aid	Visit Site
6.	Learn 4 Good	College Admissions	Visit Site
7.	Gstatic	Virus	Visit Site
8.	Cliff Notes	Reading Aid	Visit Site
9.	Bing	Search Engine	Visit Site
10.	Slither	Games	Visit Site
11.	Kids NatGeo	Environment	Visit Site
12.	Google Mirror	Miscellaneous	Visit Site
13.	SpinishDict	Foreign Language	Visit Site
14.	Mr.doob	3-D Sketcing	Visit Site
15.	Quora	World Knowledge	Visit Site
16.	BuzzFeed	News	Visit Site
17.	Pinterest	Social Media	Visit Site
18.	Grade Saver	Study Guides	Visit Site
19.	Netflix	Entertainment	Visit Site
20.	Twitter	Social Media	Visit Site

Chromebook Usage & Filtering

The Top 25 Blocked Sites

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#	NAME	CATEGORY	WEBSITE
21.	Instagram	Social Media	Visit Site
22.	Cool Math 4 Kids	Math	Visit Site
23.	Nickelodeon	Entertainment	Visit Site
24.	Run 3	Games	Visit Site
25.	Scratch	Teaching Aid	Visit Site

GoGuardian®

Smart technology needs smart management.

As more schools implement technology programs—either through 1:1 initiatives or shared carts—the need for powerful, easy-to-use device management tools is greater than ever. From device assignment and repair tracking, to web filtering and classroom management, many districts often end up using a patchwork of tools and apps to accomplish their strategic technology goals.

With a full suite of position-tailored products designed and built just for Chromebooks, GoGuardian makes it easy for school districts to manage large or small device deployments, keep their students safer online, and gain valuable insights into how their technology programs are working.

GoGuardian Admin™
Filtering & Monitoring

GoGuardian Teacher™
Classroom Management

GoGuardian Fleet™
Asset Tracking & Management

Google for Education Partner

STUDENT PRIVACY PLEDGE

KeepSafe FERPA

IDA DESIGN AWARDS SILVER WINNER 2015

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Try It Now

Learn More

Visit goguardian.com or call us at 888-310-0410

About GoGuardian

Based in Los Angeles, GoGuardian is a leader in Chromebook management solutions for K-12 school districts. GoGuardian products are used by 44,000+ educators in all fifty states, impacting millions of students and teachers every day as they use the Internet for collaboration and learning.

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