

How Much Space Do I Need to Run Pearson System of Courses?

Calculating space allocation on Pearson System of Courses

November 2017



Introduction

Each student or teacher who uses Chromebook has their own copy of the app installed on the device. This document explains how to measure and manage the space needed to install and use the Pearson System of Courses app and curriculum content on Chromebook, as well as iOS and Windows.





Available Platforms

Pearson System of Courses is offered on the following platforms:

- Google Chromebook
- Apple iOS
- Microsoft Windows

While the application performs the same functions on each platform/operating system, there are differences. One of the major differences is how each platform protects user information. Unlike iOS and Windows, the method used by Chromebook to protect user information has a direct impact on the login process and the number of users who can share a device.

Note: The operating system of the mobile device that you use to first establish your account on Pearson System of Courses must be used for all subsequent logins. Using a device with an operating system (iOS, Windows, or Chrome) that differs from the initial account setup and use will cause significant issues. The ability to transition between devices with different operation systems is not supported at this time.

The Chromebook Platform

Common Questions Around Space Usage

Do I have enough space to use Pearson System of Courses on my Chromebook device?

Each curriculum course uses a different amount of space. See the <u>chart</u> below for the sizes.

Do I have enough space to add more grades and units to my Pearson System of Courses on Chromebook?

The chart below shows you how much space is needed to add a particular grade. Each curriculum unit needs additional space and those sizes are also in the chart.

How many students can share the same Chromebook?

Each student who logs in to the Chromebook has an individual copy of the app and curriculum content. The formula below will help you to calculate how much space is needed.

Can I free up more space by removing some of my units and grades?

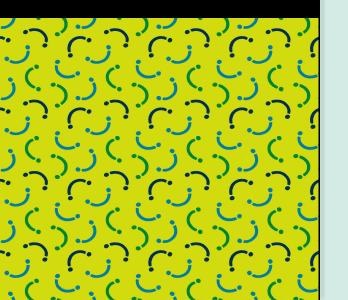
Pearson System of Courses on Chromebook allows you to remove individual units within a course. You can also remove an entire course as long it is not your default section (as determined by the Schoolnet profile). The chart below will show you how much space you can save by removing units and courses.

How do I know how much free space there is on my Chromebook device?

See How to See What's Taking Up Space on Your Chromebook.



Chromebook is Secure



- Each Chromebook user must log in to the Chromebook with their own Google Account. The Google Account profile on the device keeps user data secure and safe from anyone else who uses the same device.
- Apps like the Pearson System of Courses are installed from the Chrome Web Store to the individual user profile and become part of the secure Chromebook environment.

Pearson System of Courses on Chromebook

The same security feature that makes Chromebook user profiles invisible to other users also makes the apps they contain invisible to other users.

This means that each student who logs in to Chromebook has their own copy of the app downloaded and installed from the Chrome Web Store.



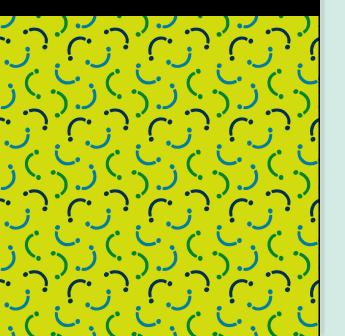


Pearson System of Courses Log in on Chromebook



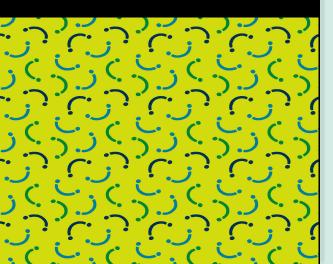
- A Google account must be used to log in to the Chromebook device and a separate, Pearson System of Courses username and password is used to log in to the Pearson System of Courses app.
- Once established, only a Pearson System of Courses username will be permitted to log in to the app.
- Another user must first log in to Pearson System of Courses on the Chromebook device using a unique Google account.

Two Users: One Device, Two Apps



- Each Google user on the Chromebook device receives their own profile, downloads their own app and content, and logs in with their own Pearson System of Courses account.
- Once a Google account and Pearson System of Courses account are used to log in to Pearson System of Courses, the Pearson System of Courses app makes sure they are always used together on that device. (Deleting the app resets this enforced pairing.)
- Pearson System of Courses accounts cannot be shared on the same device. Each Google account requires a distinct Pearson System of Courses account.
- Each pair of Google+Pearson System of Courses users have their own copy of the app and content without access to any other content on the device.
- Sizing Chromebook for Pearson System of Courses is very important.

Sizing Chromebook for Pearson System of Courses



- Calculating Chromebook space allocation for use by Pearson System of Courses is dependent on several factors:
 - The number of users sharing the Chromebook device.
 - The amount of space available on the device.
 - The amount of curriculum content downloaded to the app by each user.
 - Students can download curriculum content for their rostered grade and subjects and have an option to download additional content from one grade above and below their current grade level.
 - Teachers can download content from any grade licensed by their district.
- The amount of user generated content created by each user as part of their coursework.

Chromebook for Pearson System of Courses

| a (# of students) | Size of device | b (available space) | Content size | c (content size + app + UGC/overhead) | Space usage formula: b - a(c+d) | Conclusion |
|----------------------|-------------------|------------------------|--------------------------|---|---------------------------------------|------------------|
| 1 | 16 | 7.2 | G5 = 3.2 | 3.2+1.5 =4 .7 | 7.2 - 1(4.7) = 2.5 | Enough space |
| 2 | 16 | 7.2 | G5 = 3.2 | 3.2+1.5 =4 .7 | 7.2 - 2(4.7) = -2.2 | Not enough space |
| 3 | 32 | 15.8 | G5 = 3.2 | 3.2+1.5 =4 .7 | 16.8 - 3(4.7) = 2.7 | Enough space |
| 1 | 16 | 7.2 | G5 = 3.2 G6 ELA = 1.6 | 3.2+1.6 + 1.5 =6 .3 | 7.2 - 1(6.3) = .9 | Enough space |

For example: If the complete Grade 5 ELA and Math course curriculum together take up 3.2 gigabytes of space along with 1.5 gigabytes for the Pearson System of Courses app and user generated content, the estimated disk space that is required on the device for each student is 4.7 gigabytes of available space.

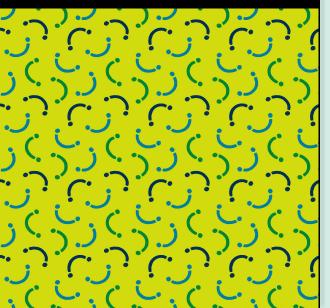
If any additional curriculum content (grade above/grade below) is downloaded by students, then more space on the device will be consumed.

See <u>appendix</u> for grade by grade measurements.



The iOS Platform

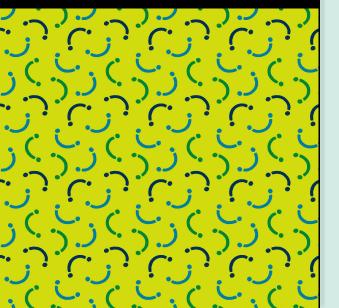
Pearson System of Courses on iOS



- Unlike Chromebook devices, iPads allow multiple students to use the same device at different times with different Pearson System of Courses logins.
- The app and curriculum content is shared among all students.
- User generated content created by each student is kept secure and separate from all other users.

The Windows Platform

Pearson System of Courses on Windows



- Like Chromebook devices, Windows devices allow multiple users to have accounts on a single device.
- Windows devices have the option to share the app and curriculum content across multiple users.
- Windows devices can also be set up to provide individual app and curriculum content per user like the Chromebook.
- Windows devices can allow more than one Pearson System of Courses login per Windows account login.



Content Size Charts

The following size charts can be used to calculate the amount of space taken up on the device when downloading content over the air (OTA). Sideloading content, which is available only on iOS and Windows, requires roughly double the amount of space on the device during the download of each content component. See iOS and Windows <u>technical</u> requirements documentation for sideload sizing by grades. All numbers are estimates because collection methods can vary depending on how grade content is downloaded.

The space taken up on the device metric is achieved by calculating the amount of storage taken up on the device as viewed by the chrome://quota-internals command on Chrome OS. The storage remaining on the device was measured before and after a download occurred. The delta was used to populate this column in the tabs. All sizes are approximate and are in megabytes.



Summary of content downloads

(Course and all units) in Megabytes.

| Grade | ELA | Math | ELA + Math | Grade | ELA | Math | ELA + Math |
|--------|------|------|------------|-------|------|------|---------------|
| К | 5357 | 1357 | 6714 | 7 | 1324 | 1230 | 3283 |
| 1 | 5498 | 1494 | 6992 | 8 | 1052 | 2231 | 2760 |
| 2 | 3133 | 1419 | 4552 | 9 | 536 | 1410 | 1946 |
| 3 | 1450 | 110 | 2560 | 10 | 532 | 1609 | 2141 |
| 4 | 1393 | 1612 | 3005 | 11 | 453 | 1684 | 2137 |
| 5 | 1293 | 1150 | 2614 | 12 | 449 | N/A | 449 |
| 6 | 1067 | 1910 | 2977 | | | | |
| Totals | | | | | | | 42130 |



Grade K

| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 120 |
| ELA - all units | 5237 |
| Unit 1 | 520 |
| Unit G-N | 260 |
| Unit 2 | 433 |
| Unit G-I | 230 |
| Unit 3 | 390 |
| Unit G-O | 210 |
| Unit 4 | 440 |
| Unit 5 | 330 |
| Unit 6 | 680 |
| Unit 7 | 500 |
| Unit 8 | 390 |
| Unit 9 | 510 |
| Unit 10 | 48 |
| Unit 11 | 193 |
| Unit 12 | 103 |
| Total course and units | 5357 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 97 |
| Math - all units | 1260 |
| Unit 0 | |
| Unit 1 | 50 |
| Unit 2 | 110 |
| Unit 3 | 250 |
| Unit 4 | 30 |
| Unit 5 | 150 |
| Unit 6 | 160 |
| Unit 7 | 50 |
| Unit 8 | 130 |
| Unit 9 | 40 |
| Unit 10 | 40 |
| Unit 11 | 130 |
| Unit 12 | 120 |
| Total course and units | 1357 |



| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 305 |
| ELA - all units | 5498 |
| Unit 1 | 490 |
| Unit G-N | 239 |
| Unit 2 | 591 |
| Unit G-I | 238 |
| Unit 3 | 488 |
| Unit 4 | 595 |
| Unit G-O | 246 |
| Unit 5 | 463 |
| Unit 6 | 329 |
| Unit 7 | 471 |
| Unit 8 | 431 |
| Unit 9 | 612 |
| Total course and units | 5803 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 174 |
| Math - all units | 1494 |
| Unit 0 | 180 |
| Unit 1 | 70 |
| Unit 2 | 80 |
| Unit 3 | 120 |
| Unit 4 | 80 |
| Unit 5 | 70 |
| Unit 6 | 180 |
| Unit 7 | 60 |
| Unit 8 | 220 |
| Unit 9 | 0 |
| Unit 10 | 60 |
| Unit 11 | 200 |
| Total course and units | 1668 |



| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 410 |
| ELA - all units | 3133 |
| Unit 1 | 195 |
| Unit G-N | 62 |
| Unit 2 | 271 |
| Unit G-I | 24 |
| Unit 3 | 326 |
| Unit 4 | 247 |
| Unit 5 | 351 |
| Unit G-O | 84 |
| Unit 6 | 772 |
| Unit 7 | 194 |
| Unit 8 | 197 |
| Total course and units | 3543 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 480 |
| Math - all units | 939 |
| Unit 0 | 63 |
| Unit 1 | 65 |
| Unit 2 | 111 |
| Unit 3 | 59 |
| Unit 4 | 94 |
| Unit 5 | 85 |
| Unit 6 | 68 |
| Unit 7 | 51 |
| Unit 8 | 60 |
| Unit 9 | 80 |
| Unit 10 | 34 |
| Unit 11 | 139 |
| Unit 12 | 30 |
| Total course and units | 1419 |





| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 580 |
| ELA - all units | 870 |
| Unit 1 | 188 |
| Unit 2 | 200 |
| Unit A | 40 |
| Unit G-N | 53 |
| Unit 3 | 11 |
| Unit G-I | 73 |
| Unit 4 | 131 |
| Unit B | 13 |
| Unit G-O | 10 |
| Unit 5 | 135 |
| Unit 6 | 16 |
| Total course and units | 1450 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 740 |
| Math - all units | 1684 |
| Unit 0 | 32 |
| Unit 1 | 185 |
| Unit Test A | 72 |
| Unit 2 | 171 |
| Unit 3 | 236 |
| Unit 4 | 166 |
| Unit 5 | 226 |
| Unit 6 | 97 |
| Unit 7 | 260 |
| Unit 8 | 68 |
| Unit 9 | 54 |
| Unit 10 | 56 |
| Unit 11 | 14 |
| Unit 12 | 47 |
| Unit Test B | 0 |
| Total course and units | 2424 |





| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 550 |
| ELA - all units | 843 |
| Unit 1 | 254 |
| Unit 2 | 59 |
| Unit A | 4 |
| Unit G-N | 7 |
| Unit 3 | 110 |
| Unit G-I | 18 |
| Unit 4 | 150 |
| Unit B | 43 |
| Unit G-O | 24 |
| Unit 5 | 94 |
| Unit 6 | 80 |
| Total course and units | 1393 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 625 |
| Math - all units | 987 |
| Unit 0 | 34 |
| Unit 1 | 75 |
| Unit Test A | 24 |
| Unit 2 | 101 |
| Unit 3 | 190 |
| Unit 4 | 133 |
| Unit 5 | 19 |
| Unit 6 | 117 |
| Unit 7 | 176 |
| Unit 8 | 62 |
| Unit 9 | 56 |
| Unit Test B | 0 |
| Total course and units | 1612 |





| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 660 |
| ELA - all units | 633 |
| Unit 1 | 74 |
| Unit G-I | 11 |
| Unit 2 | 97 |
| Unit A | 6 |
| Unit G-N | 5 |
| Unit 3 | 85 |
| Unit G-O | 1 |
| Unit 4 | 87 |
| Unit B | 8 |
| Unit 5 | 29 |
| Unit 6 | 230 |
| Total course and units | 1293 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 675 |
| Math - all units | 1121 |
| Unit 0 | 23 |
| Unit 1 | 223 |
| Unit Test A | 35 |
| Unit 2 | 128 |
| Unit 3 | 144 |
| Unit 4 | 42 |
| Unit 5 | 113 |
| Unit 6 | 45 |
| Unit 7 | 167 |
| Unit 8 | 50 |
| Unit 9 | 76 |
| Unit 10 | 75 |
| Unit Test B | 0 |
| Total course and units | 1796 |

| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 620 |
| ELA - all units | 447 |
| Unit 1 | 39 |
| Unit G-A | 6 |
| Unit 2 | 150 |
| Unit A | 33 |
| Unit G-N | 3 |
| Unit 3 | 128 |
| Unit G-I | 22 |
| Unit 4 | 12 |
| Unit B | 17 |
| Unit 5 | 37 |
| Total course and units | 1067 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 680 |
| Math - all units | 1230 |
| Unit 0 | 31 |
| Unit 1 | 158 |
| Unit Test A | 1 |
| Unit 2 | 115 |
| Unit 3 | 149 |
| Unit 4 | 139 |
| Unit 5 | 132 |
| Unit 6 | 188 |
| Unit 7 | 103 |
| Unit 8 | 85 |
| Unit 9 | 129 |
| Unit Test B | 0 |
| Total course and units | 1910 |



| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 570 |
| ELA - all units | 754 |
| Unit 1 | 48 |
| Unit 2 | 3 |
| | 20 |
| Unit A | 52 |
| Unit G-A | 8 |
| Unit RMU | 18 |
| Unit 3 | 75 |
| Unit G-I | 8 |
| Unit 4 | 346 |
| Unit B | 6 |
| Unit 5 | 170 |
| Total course and units | 1324 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 640 |
| Math - all units | 1230 |
| Unit 0 | 16 |
| Unit 1 | 147 |
| Unit Test A | 21 |
| Unit 2 | 209 |
| Unit 3 | 168 |
| Unit 4 | 208 |
| Unit 5 | 140 |
| Unit 6 | 114 |
| Unit 7 | 207 |
| Unit Test B | 0 |
| Total course and units | 1870 |



| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 680 |
| ELA - all units | 372 |
| Unit 1 | 45 |
| Unit G-N | 9 |
| Unit 2 | 47 |
| Unit A | 12 |
| Unit G-A | 7 |
| Unit 3 | 26 |
| Unit G-I | 4 |
| Unit 4 | 213 |
| Unit B | 9 |
| Unit 5 | 0 |
| Total course and units | 1052 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 817 |
| Math - all units | 1415 |
| Unit 0 | 145 |
| Unit 1 | 86 |
| Unit Test A | 33 |
| Unit 2 | 163 |
| Unit 3 | 227 |
| Unit 4 | 176 |
| Unit 5 | 153 |
| Unit 6 | 82 |
| Unit 7 | 148 |
| Unit 8 | 56 |
| Unit 9 | 146 |
| Unit B | 0 |
| Total course and units | 2232 |



| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 200 |
| ELA - all units | 336 |
| Unit 1 | 23 |
| Unit 2 | 68 |
| Unit A | 35 |
| Unit 3 | 65 |
| Unit 4 | 28 |
| Unit B | 12 |
| Unit 5 | 105 |
| Total course and units | 536 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 490 |
| Math - all units | 920 |
| Unit 0 | 5 |
| Unit 1 | 152 |
| Unit Test A | 9 |
| Unit 2 | 38 |
| Unit 3 | 87 |
| Unit 4 | 33 |
| Unit 5 | 89 |
| Unit Project A | 11 |
| Unit 6 | 109 |
| Unit 7 | 112 |
| Unit 8 | 33 |
| Unit 9 | 232 |
| Unit Project B | 10 |
| Unit Test B | 0 |
| Total course and units | 1410 |



| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 190 |
| ELA - all units | 342 |
| Unit 1 | 20 |
| Unit 2 | 108 |
| Unit A | 76 |
| Unit 3 | 28 |
| Unit 4 | 23 |
| Unit B | 2 |
| Unit 5 | 85 |
| Total course and units | 532 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 474 |
| Math - all units | 1135 |
| Unit 0 | 26 |
| Unit 1 | 115 |
| Unit Test A | 0 |
| Unit 2 | 200 |
| Unit 3 | 126 |
| Unit 4 | 91 |
| Unit 5 | 12 |
| Unit Project A | 4 |
| Unit 6 | 67 |
| Unit 7 | 120 |
| Unit 8 | 146 |
| Unit 9 | 165 |
| Unit 10 | 49 |
| Unit Project B | 14 |
| Total course and units | 1609 |

| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 260 |
| ELA - all units | 193 |
| Unit 1 | 53 |
| Unit 2 | 19 |
| Unit A | 4 |
| Unit 3 | 35 |
| Unit 4 | 27 |
| Unit B | 8 |
| Unit 5 | 47 |
| Total course and units | 453 |

| Math | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 430 |
| Math - all units | 1254 |
| Unit 0 | 15 |
| Unit 1 | 189 |
| Unit Test A | 0 |
| Unit 2 | 98 |
| Unit 3 | 96 |
| Unit 4 | 40 |
| Unit Project A | 16 |
| Unit 5 | 545 |
| Unit 6 | 171 |
| Unit 7 | 52 |
| Unit 8 | 19 |
| Unit Project B | 13 |
| Unit Test B | 0 |
| Total course and units | 1684 |





| ELA | Space taken up on the device (MB) |
|--|-----------------------------------|
| Initial Course Download, Resource Library & Assets, Assessments | 240 |
| ELA - all units | 209 |
| Unit 1 | 37 |
| Unit 2 | 20 |
| Unit A | 6 |
| Unit 3 | 73 |
| Unit 4 | 39 |
| Unit B | 8 |
| Unit 5 | 26 |
| Total course and units | 449 |

See Grades K-11 for Pearson System of Courses Math.



ALWAYS LEARNING