

PLTW Gateway 2022-23 Computer Specifications

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The PLTW curriculum utilizes powerful, industry-based software. To prepare for a successful school year, please work closely with your IT department to ensure your computer hardware meets or exceeds the specifications below.

To implement any of the PLTW Gateway units, each student and teacher must have a PC, Mac, or Chromebook. The matrix below shows the supported hardware for each unit. In addition, the App Creators unit requires an Android tablet for every two students. The list of software needed for PLTW coursework is [here](#).

PLTW Gateway Specifications

PLTW Gateway Unit	PC/Windows	Mac	Chromebook	Android Tablet	iPad/iOS
App Creators*	✓*	✓*	✓*	✓*	✓*
Automation Robotics	✓	✓***	✓***		
Computer Science for Innovators and Makers	✓	✓	✓		
Design and Modeling	✓	✓	✓		
Energy and the Environment	✓	✓	✓		
Flight and Space	✓	✓	✓		
Green Architecture **	✓**	DL	DL		
Magic of Electrons	✓	✓	✓		
Medical Detectives	✓	✓	✓		
Science of Technology	✓	✓	✓		

*The App Creators unit requires each student and teacher to have a PC, Mac, or Android-enabled Chromebook with access to the Google Play store **AND** an Android tablet or iPad. Amazon Fire tablets are not compatible with App Creators. It is highly recommended that students have a second display/monitor for use with their PC or Mac to allow for simultaneous programming and curriculum access.

**The Green Architecture unit requires the use of Autodesk Revit software, which requires more substantial computing hardware than all other PLTW Gateway units. Please refer to the Green Architecture PC and Mac specifications at the [bottom of this document](#).





***The Automation and Robotics unit includes instruction and support for both the VEX Cortex and VEX V5 equipment and software. Schools using the VEX V5 equipment may use the the VEXcode V5 2.0 software. This software is compatible with PC, MAC, and Chromebook. Distance Learning activities are available for schools that have not purchased the VEX V5 platform but only have Chromebooks, or if students do not have physical access to the robotics equipment.

PLTW Gateway Computer Specifications		
Specification	Minimum	Recommended
Processor	Intel® or AMD processor 2.0 Ghz +	Intel® or AMD processor 2.3 Ghz +
RAM	4 GB +	8 GB +
Hard Drive	250 GB +	250 GB +
Video	Graphics 512 MB +	Graphics 1 GB +
Operating System	Windows 7, Windows 8.1, or Windows 10 64 bit operating system. Apple device with OSX 10.7+ and Bootcamp for AR if using the Cortex system.	Windows 7, Windows 8.1, or Windows 10, 64 bit operating system or Apple device with OSX 10.11+ and Bootcamp for AR if using the Cortex system.
Network	Must have network connectivity (wireless and/or wired)	Must have network connectivity (wireless and/or wired)
Other Basic Software (complete software lists here)	<ul style="list-style-type: none"> We We recommend the most current version of Firefox or Chrome for optimal utilization of myPLTW. 	<ul style="list-style-type: none"> We recommend the most current version of Firefox or Chrome for optimal utilization of myPLTW.

PLTW Gateway Android Tablet Specifications	
Screen Size	7 inch +
On Board Storage	16 GB +
Operating System	Android v4.4.2 +
Network	WIFI enabled (cellular/LTE not required); Must have wireless network connectivity*

PLTW Gateway iPad Specifications	
Supported Models	Models that can update to iPadOS 13 or higher. See list of models.
Screen Size	7.9 inch +
On Board Storage	16 GB +
Operating System	iOS 13 + (MIT App Inventor may work on iOS less than 13.0)
Network	WIFI enabled (cellular/LTE not required); Must have wireless network connectivity*





PLTW Gateway Android-Enabled Chromebook Specifications (Click here for Google Education Site)	
Screen Size	11 inch +
Processor	1.0 Ghz+
RAM	4 GB +
On Board Storage	16 GB +
Graphics	Integrated
Camera	Must have an onboard camera, front facing or world facing
USB Connectivity	Must have a USB port and drivers
Operating System	Chrome OS Current version (updated continuously)
Network	WIFI enabled (cellular/LTE not required); Must have wireless network connectivity*
Android App Compatibility	We only support Android-enabled Chromebooks for the App Creators Course. All other Gateway courses can use any Chromebook. The list of makes/models of Android-enabled Chromebooks is maintained by Google here .

Green Architecture ONLY Computer Specifications		
Specification	Minimum	Recommended
Processor	Intel® or AMD processor 2.0 Ghz +	Intel or AMD four+ core processor, 3.0 Ghz +
RAM	8 GB +	20 GB +
Hard Drive	500 GB +	1 TB +
Video *	512 MB + dedicated RAM, Microsoft® Direct3D 10® capable graphics card or higher supporting 1280 x 1024 screen resolution*	1 GB + dedicated RAM, Microsoft® Direct3D 11® capable graphics card or higher supporting 1920 x 1200 with true color*
Operating System	Windows 7, Windows 8, or Windows 10, 64 bit operating system or MAC device with OSX 10.9 +. Bootcamp required with one of the above Windows operating systems. NOTE: MAC devices made with the new M1 chip cannot run Bootcamp or a parallel OS. Take this into consideration when purchasing new machines.	Windows 7, Windows 8, or Windows 10, 64 bit operating system or MAC device with OSX 10.11 +. Bootcamp required with one of the above Windows operating systems. NOTE: MAC devices made with the new M1 chip cannot run Bootcamp or a parallel OS. Take this into consideration when purchasing new machines.
Network	Must have network connectivity (wireless and/or wired)	Must have network connectivity (wireless and/or wired)
Other Basic Software (complete software lists here)	<ul style="list-style-type: none"> We recommend the most current version of Firefox or Chrome for optimal utilization of myPLTW. 	<ul style="list-style-type: none"> We recommend the most current version of Firefox or Chrome for optimal utilization of myPLTW.



*IMPORTANT: Do not use Basic Intel graphic chipset or other chipsets with shared memory for video display. See the Autodesk certified graphics hardware page [here](#) as reference tool in selecting graphics hardware.

Distance Learning: To accommodate distance learning environments, students may use a Chromebook in place of the recommended desktop or laptop. A Chromebook is not recommended for the teacher's computing platform.

Network Allow list: Please see our Allow list for ports and websites [here](#). Following the Allow list ensures that teachers and students can access and use the software, websites, and applications required to offer PLTW coursework.

Other PLTW Gateway Hardware

Projector: Each classroom needs a digital projector with screen (or equivalent classroom display hardware) with appropriate cables, adapters, or software to connect to the teacher device.

Printer: Each classroom will need access to a single medium duty printer for coursework:

Print speed: Up to 35ppm

Resolution: 600 x 600 dpi minimum, Color not required

Memory: 128 MB min

Paper size: Letter, Legal

Network ready

