Technical Requirements for Computer Science A

This document describes the hardware, software, and network requirements needed for PLTW Computer Science A (CSA). It is divided into the following sections:

Hardware Requirements

Allow Lists

Software Requirements

Additional PLTW Core Training Requirements

Questions

IMPORTANT: Please note that the following hardware requirements are common across ALL courses in the PLTW Computer Science program.

A computing platform is required for each teacher and for each student taking a computer science course. A desktop, laptop, or Chromebook with a Linux installation are the preferred platforms.

Computer Specifications	Minimum	Recommended
Processor	Intel® or AMD processor 2.0 GHz +	Intel® or AMD processor 2.3 GHz +
RAM	8 GB +	12 GB +
Hard Drives	250 GB +	250 GB +
Video	Graphics 128 MB +	Graphics 256 MB +
Operating System	Windows 10, Windows 11 64-bit, or Apple device with MacOS 13+	
Misc.	External mouse Headphones or earbuds	

Chromebook Specifications	Minimum
Processor	1.0 GHz +
RAM	4 BG +
Screen Size	11 inch +
On Board Storage	16 GB +
Operating System	Chrome OS current version (updated continuously) Linux OS
Network	Wireless enabed (cellular/LTE not required)
Misc.	Graphics Integrated Bluetooth® USB port and drivers

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

Note: Other equipment and supplies required for your classroom can be purchased from the PLTW Store. Please refer to the PLTW Investment Tool for more information.

Allow Lists

All teacher and student computers must have access to the internet. To comply with the Children's Internet Protection Act (CIPA), an unrestricted internet is prohibited at school sites. IT departments and/or school districts configure *allow lists* which contain approved domains, URLs, and IP addresses that school computers can access.

Collaborate with the appropriate group to confirm the allow list has been configured for all teacher and student computers.

NOTE: The Allow List below is a comprehensive list for all courses in the computer science program.

General PLTW and CS Program Allow List.

Distance Learning: If your school issues Chromebooks to students for distance learning, make sure to incorporate the Distance Learning Allow List as well.

Software Requirements

Your IT department or your school district usually installs software on school computers. Collaborate with the appropriate group to confirm the required software has been installed for all student and teacher computers, including the computer you will be using during core training.

Common Software Requirements

The following are the software requirements for all courses in the CS pathway.

Chrome or Firefox browser, latest version

End-of-Course Assessment software:

Installation Guide for Windows

Installation Guide for Mac

Installation Guide for iPads

Installation Guide for Chromebooks

Course-Specific Software Requirements

The following installations are required for Computer Science A.

Visual Studio Code (Java) PC

Visual Studio Code (Java) MAC

Visual Studio Code (Java) for Chromebooks

For Chromebooks, Linux will need to be installed to use Visual Studio Code

In addition to the hardware, network, and software requirements identified above, PLTW Core Training has a few recommendations to make your learning experience the best possible.

> Request administrative rights to your device(s). While this is not always possible, it is very useful to have if you need help troubleshooting issues.

Hardware for Core Training

> A desktop or laptop is required for core training. See "Hardware Requirements" section.

> A system with a full-size monitor is recommended and a system with two monitors, one of which can be a laptop screen, is ideal.

Allow List for Core Training

If you are using your own computer and have open access to the internet, you will not need to configure the allow list for core training. If you are using a desktop or laptop provided by your school, you will most likely need to have the allow list configured on your device. Refer to the "Allow Lists" section for details.

Software for Core Training

Refer to the "Software Requirements" section for details.

Participant Supply List

You will receive a PLTW Core Training Welcome and Equipment Kit for your course. Your kit will be delivered to the address you provided at registration. It will include a welcome kit and a PLTW Computer Science Notebook.

Questions?

Our friendly PLTW Solution Center team members are here to answer any of your questions. Call us at 877.335.7589 for live, one-on-one support Monday through Friday 7:00 a.m.–9:00 p.m. ET. You can also email us at solutioncenter@pltw.org.