## System Requirements for the 2024 AP Chinese and AP Japanese Exams

Each computer must meet minimum hardware and software requirements to administer the exams. Review the table below to ensure your computers meet all requirements. If you have any questions, email <a href="mailto:APiBTTech@ets.org">APiBTTech@ets.org</a>.

Requirements	Details
Devices	<ul><li>Desktops: macOS, Windows</li><li>Laptops: managed Chromebooks, macOS, Windows</li></ul>
Device Ownership	<ul> <li>School-owned and -controlled computers must be used to administer the AP Chinese and AP Japanese Exams. Student-owned computers may not be used under any circumstances.</li> </ul>
Operating Systems	<ul> <li>Chrome OS 67+</li> <li>macOS 10.7+</li> <li>Windows 10 and 11 (32-bit and 64-bit)</li> <li>Note: Virtual desktops or computers are not supported; the OS must boot from the local hard drive.</li> </ul>
Processors	<ul> <li>Chrome OS: Any</li> <li>macOS: Intel-based models (Preferred)</li> <li>Windows: Intel x86 (32-bit and 64-bit) (Preferred)</li> </ul>
Memory (RAM)	<ul> <li>Chrome OS: 2 GB minimum (4 GB recommended)</li> <li>macOS: 2 GB minimum (4 GB recommended)</li> <li>Windows 10: 2 GB minimum (4 GB recommended)</li> <li>Windows 11: 4 GB minimum (8 GB recommended)</li> <li>Note: If a computer doesn't have enough memory for the exam, a warning message will appear during the setup process.</li> </ul>
Minimum Screen Size	9.5 inches for all devices
Minimum Screen Resolution	1024 x 768 for all devices
Internet Connectivity	<ul> <li>Internet connectivity is required to set up the testing computer and throughout the exam administration.</li> <li>The exam location should have minimum internet and network bandwidth 600 Kbps per student (1 Mbps per student is highly recommended).</li> </ul>
	Note: A bandwidth check tool is included in the Administrator Console.

Network and Testing Computer Security	<ul> <li>TCP ports 443 and 80 (outbound) must be open in firewalls for ETS software application network communications.</li> </ul>
	<ul> <li>White-list "ETS.ORG" domain in firewalls allowing free network communication between ETS software application on the testing computers and ETS servers without any restrictions.</li> </ul>
	<ul> <li>Configure testing computer security policies and user accounts such that it allows downloading and running of ETS software applications (.EXE).</li> </ul>
	<ul> <li>Screen sharing or remote access applications such as Apple Remote Desktop, Microsoft Remote Desktop, Zoom, Skype, and Microsoft Teams etc., must be disabled prior to and during the exam administration. Failure to do so may result in test interruption.</li> </ul>
	Note: Consult with your school's IT staff for implementing the above configurations.
Internet Browsers	■ Google Chrome—Version 60 or above
	Mozilla Firefox—Version 50 or above
	Safari—Version 10.1 or above
Headset Requirements	<ul> <li>Headset must have microphone and earphone connectors that are compatible with the testing computer sound card</li> </ul>
	Headset earphones must completely cover the ears
	At least 6½ feet (approximately 2 meters) of wire is recommended
	No external volume controls on headset itself
	No mute switch on headset itself
	Wireless or Bluetooth headsets are not permitted
Recommended Headsets	The following headsets (one set per each student testing) are recommended, but you may use any headsets that meet the above headset requirements:
	■ Koss SB45/SB45 USB headsets koss.com
	Califone 3066AV/3066-USB headsets schoolspecialty.com/califone
Keyboard Requirements	Only English language keyboards are permitted
	<ul> <li>Keyboard maps, covers, or Chinese or Japanese keyboards are not permitted</li> </ul>
Sound Card	■ 44.1KHz (or better) sample rate
External USB Storage Devices	All external USB storage devices, such as backup hard drives, must be disconnected before the exam begins

## **Technical Configuration Requirements**

Review the following requirements to prepare computers for the exams. The implementation of some computer configurations may require assistance from technical staff at your school.

Requirements	Details
Chromebook:	Management Control: Chromebooks must be under the management control of Google Workspace for Education (formerly Google G-Suite).
	<ul> <li>Hibernation or Sleep Mode: All computers must be configured so they don't go in sleep mode during the exam.</li> </ul>
	<ul> <li>Device Screensavers: Device screensavers should be configured so they do not become active during the exam delivery and cause an interruption.</li> </ul>
	<ul> <li>Chrome OS Updates: Configure the device so updates are not downloaded and applied during the exam delivery.</li> </ul>
	<ul> <li>Language: Before the exam administration, ensure English (United States) is set as language on all devices.</li> </ul>
Mac:	<ul> <li>Administrator Rights: A user account with local administrator rights is required to install the exam application on each computer.</li> </ul>
	<ul> <li>Energy Saver Options: All computer energy saver options when on battery or on power adapter must be configured so that the hard disk and monitor stays ON and the systems do not go into hibernation or standby mode during the exam delivery.</li> </ul>
	<ul> <li>Desktop Screensavers: Desktop screensavers should be configured so they do not become active during the exam delivery and cause an interruption.</li> </ul>
	<ul> <li>Dual Monitors: Because the normal desktop and taskbar cannot be suppressed on both monitors, dual monitors are not supported.</li> </ul>
	<ul> <li>Mac Software Updates: Configure computers so updates are not downloaded and applied during the exam.</li> </ul>
	<ul> <li>Preferred Language: Prior to the exam administration, ensure English (United States) is set as primary preferred language on all computers.</li> </ul>
	Keyboard Dictation Configuration: Prior to each exam administration, ensure that you turn off "Dictation" under Keyboard-Dictation settings. In addition, ensure "Dictation" and "Screencapture" processes are not started or running during the exam delivery.
Windows:	<ul> <li>Administrator Rights: A Windows user account with local administrator rights is required to install the exam application on each computer. Set User Account Control to NEVER NOTIFY during installation.</li> </ul>
	<ul> <li>Power Options: All computer Power Schemes must be configured such that the computer display does not turn off, or the computer does not go into sleep mode during the exam. This will ensure the computer display does not become locked during the exam, due to inactivity.</li> </ul>
	<ul> <li>Desktop Screensavers: Desktop screensavers should be disabled to ensure they do not become active during the exam delivery and cause an interruption.</li> </ul>
	<ul> <li>Dual Monitors: Because the normal desktop and taskbar cannot be suppressed on both monitors, dual monitors are not supported.</li> </ul>
	<ul> <li>Microsoft Windows Updates (Automatic Updates): Configure computers so updates are not downloaded and applied during the exam delivery.</li> </ul>
	<ul> <li>System Locale: Before the exam administration, ensure that the Windows system locale (language for non-Unicode programs) is set to English (United States) on all computers.</li> </ul>