

## Technology Requirements for ACCESS for ELLs 2.0<sup>®</sup> Operational Test

The online [ACCESS for ELLs 2.0](#), operational in 2015-16, is designed to assess English learners' English language proficiency in reading, writing, listening, and speaking. To minimize the planning burden on districts, the technical requirements match the [PARCC](#) and [Smarter Balanced](#) consortia requirements whenever possible.

### Operating systems and devices

Operating System/Device	Recommended Minimum	
	Current Devices	New Purchases
<b>Windows</b>		
Version	7 or newer	7 or newer
Processor	1.4 GHz or faster	1.4 GHz or faster
Memory (RAM)	1 GB or more	1 GB or more
Free drive space	1 GB or more	1 GB or more
<b>Mac OSX</b>		
Version	10.5	10.7 or newer
Processor	Intel x86 or PowerPC G5 800 MHz	1 GHz or faster
Memory (RAM)	512 MB	1GB or more
Free drive space	200 MB	1 GB or more
<b>Linux</b>		
Version	Ubuntu 9-10 or Fedora 6	Ubuntu 11.0 or Fedora 16 or newer
Processor	Pentium or AMD 500 MHz	1 GHz or faster
Memory (RAM)	512 MB	1 GB or more
Free drive space	200 MB	1 GB or more
<b>Chrome</b>		
Version	Chrome OS 19	Chrome OS 19 or newer
<b>iOS</b>		
Version	iPad 2 with iOS 7	iPad Air with iOS 7 or newer
<b>Android</b>		
Version	4.0	4.0 or newer
<b>Windows Tablets</b>		
Version	Windows 8	Windows 8 or newer

### Additional Requirements for all operating systems and devices

Requirement
Screen
<ul style="list-style-type: none"> <li>• Size: 9.5-inch or larger</li> <li>• Resolution: 1024 x 768 or higher</li> </ul>
Keyboards
<ul style="list-style-type: none"> <li>• External keyboard</li> <li>• Mouse, touchpad, or touch screen</li> <li>• Alternative input devices if allowable accommodations</li> </ul>
Headsets
<ul style="list-style-type: none"> <li>• Headset with microphone required</li> <li>• <a href="#">Recommendations for Purchasing Headsets</a></li> </ul>
Security
<ul style="list-style-type: none"> <li>• Must be able to manage user security settings to temporarily disable some features, such as email, messaging, screen capture, unrestricted Internet access, and so on</li> </ul>

### Considerations for tablet users

Consideration
Network
<ul style="list-style-type: none"> <li>• The number of concurrent users may be limited when using wireless access</li> <li>• It has not yet been determined whether Bluetooth devices will be allowable</li> </ul>
Screen size
<ul style="list-style-type: none"> <li>• Minimum 9.5-inch screen with 1024 x 768 or higher resolution</li> </ul>
Keyboard
<ul style="list-style-type: none"> <li>• External keyboard required to minimize scrolling for graphics-intensive items</li> </ul>
Headsets
<ul style="list-style-type: none"> <li>• Some tablets may require use of an adaptor</li> <li>• <a href="#">Recommendations for Purchasing Headsets</a></li> </ul>
Operating system
<ul style="list-style-type: none"> <li>• Due to the variety of devices and operating systems, a device certification process may be required</li> </ul>

### Network

The table below reflects minimum and recommended bandwidth requirements. Additional concurrent network activities will reduce the bandwidth available for testing. See the State Education Technology Directors Association publication [The Broadband Imperative](#) for more information about bandwidth targets for assessment and instruction.

Local Caching?	Bandwidth (per student)	
	Minimum	Recommended
Yes	20-50 kbps	50 kbps or more
No	40-100 kbps	100 kbps or more