



### Technical Specifications

KOSSA is being administered through TFI online assessment system and is delivered by the E-SESS engine. Please review the following technical specifications provided by TFI and KDE to ensure a smooth testing experience. DACs, BACs, and Principals should communicate with Building and District Technology Coordinators to confirm all guidelines in this document are addressed.

**Browser:** The testing program is supported in Firefox and Chrome on all platforms. IE 11 and Edge are supported on Windows. Safari is supported on Mac OS X.

Other browsers beyond what is listed above may work, but the specified browsers are the only versions actively tested and supported. We will try to help with any other browsers or older versions, but we offer no guarantees. Bandwidth may be an issue if it's not "dedicated." A school may have 5 T1s, but if they have 50 students in the library streaming videos, the entire pipe is going to be used. The bandwidth estimation of this requirement is based on 150–200 students simultaneously taking the test on a dedicated T1 and experiencing no delays.

**Reporting:** In some cases, in-browser reports are augmented with spreadsheet and/or PDF documents. Excel (or compatible) and a PDF reader (such as Acrobat Reader) are optional but not required.

**Audio:** Using the audio feature requires additional bandwidth; you may notice slower response times during testing. CTECS recommends using wired computer Internet connections. Audio is played using HTML 5 technology.

**Display Properties:** The testing program is best viewed at 1024 x 768 display resolution or higher. It will work at 800 x 600.

**Bandwidth:** The bandwidth recommendation is a T1 line for every 150 simultaneous users. The T1 may be able to serve additional students; however, student populations greater than 150 per site have not been tested and confirmed by TFI.

**Memory:** There are no specific requirements for the CPU, RAM, etc. If the machine will run the browser, the E-SESS application will run.

**Proxy Server Settings:** Make sure that the proxy server will not cache Techfluency.org. Responses must be sent directly to the E-SESS (Techfluency) server.

Do not begin testing students until Proxy Server settings allow communication to flow to and from the E-SESS online testing system. Otherwise, the students will finish the test and receive a 0 score.

Be sure to take the sample test (see next section). The timer (clock) should display correctly on the screen; if not, there is a problem and students cannot test until it is resolved.

During testing, if you notice that the timer (clock), displayed on the student's screen looks "garbled" or undefined, there is something blocking the content. Students should NOT continue to take the test. Proctors should stop testing and contact CTECS and the IT personnel at the location to resolve the issue.

**Sample Test:** Access the sample test at each location before students begin testing. This ensures that there are no proxy servers preventing access to the site, no software packages preventing cookies/sessions from being stored, etc. The sample test may be accessed multiple times by individual users.

### To access the sample KOSSA test:

1. go to <http://www.techfluency.org/esess/>
2. make the following entries into the four blanks:

Organization: KOSSA  
First Name: Sample  
Last Name: Sample  
Password: Sample

3. click **Log In**.
4. click **Continue**.
5. click **Begin**.

Note: At least one graphic should be visible and the timer should be visible and clearly readable throughout the test.

**Firewalls and server settings:** Be sure that the IP addresses are not blocked.

**IP Information:** There are 2 load balanced front end servers for Techfluency.org (the testing site):

174.129.233.219

184.73.202.76

The only exception will be images and audio (text-to-speech feature) used on the tests. The images are hosted on Amazon's S3 servers. Server name: media.techfluency.org

### **District Guidelines for Network Activity Moratorium During Online Testing**

The following are a list of recommended best practices for district technology personnel to have in place during scheduled online testing windows in their district.

Use of these recommendations will greatly improve the testing experience for the students and reduce or eliminate possible activity that could impede the online testing system. These guidelines apply to all online tests. They were specifically designed to focus on best practices and lessons learned from past testing sessions.

**Most importantly:** Communicate with the District Assessment Coordinator (DAC) or ATC Principal to make sure you have these guidelines in place to meet their scheduled tests.

### During Testing Windows:

1. Disable Wireless Guest Networks
2. If a district has Routers within their LAN, establish QOS Rules to Prioritize Access to Testing Sites
3. Whitelist Testing Sites IP Addresses (Proxy/Internet Filter)
4. Restrict or Ban Certain Network Activity During Testing Window. This should include:
  - a. Video Streaming (Youtube, Discovery, Netflix, Hulu, Hudi, Etc)
  - b. Audio Streaming (Pandora, iHeartRadio, Slacker, etc)
  - c. Large Data Moves or Backup/Restoration Projects
  - d. Alterations to LAN Network Equipment
  - e. Removal or Additions to Network LAN
  - f. System Updates (OS Updates, Patches, Software Updates, Etc) These Should Be rescheduled for after the test window
  - g. App Updates or Downloads. These should be scheduled for after the test window
  - h. Video Conferencing