

## **Infrastructure Trial Readiness Guide for 2021 MCAS Computer-Based Testing**

---

March 2021



This document was prepared by the  
Massachusetts Department of Elementary and Secondary Education  
Jeffrey C. Riley  
Commissioner

The Massachusetts Department of Elementary and Secondary Education, an affirmative action employer, is committed to ensuring that all of its programs and facilities are accessible to all members of the public. We do not discriminate on the basis of age, color, disability, national origin, race, religion, sex, gender identity, or sexual orientation.

Inquiries regarding the Department's compliance with Title IX and other civil rights laws may be directed to the Human Resources Director, 75 Pleasant St., Malden, MA 02148-4906. Phone: 781-338-6105.

© 2021 Massachusetts Department of Elementary and Secondary Education  
*Permission is hereby granted to copy any or all parts of this document for non-commercial educational purposes. Please credit the "Massachusetts Department of Elementary and Secondary Education."*

*This document printed on recycled paper*

Massachusetts Department of Elementary and Secondary Education  
75 Pleasant Street, Malden, MA 02148-4906  
Phone 781-338-3000 TTY: N.E.T. Relay 800-439-2370  
[www.doe.mass.edu](http://www.doe.mass.edu)



## Important Contact Information and Resources

Contact:	<b>MCAS Service Center</b>
For questions on:	<ul style="list-style-type: none"><li>• general test administration support</li><li>• PearsonAccess<sup>next</sup> and TestNav such as<ul style="list-style-type: none"><li>○ user accounts</li><li>○ technology support and readiness</li><li>○ Infrastructure Trials and ProctorCache</li><li>○ viewing student records and organizations</li><li>○ the SR/PNP process and loading files</li></ul></li><li>• logistical support, including filling out the Materials Summary and the PCPA</li><li>• locating resources</li><li>• shipments of materials</li></ul>
Hours:	7:00 a.m.–5:00 p.m., Monday–Friday
Web:	<a href="http://mcas.pearsonsupport.com">mcas.pearsonsupport.com</a>
Email:	<a href="mailto:mcas@cognia.org">mcas@cognia.org</a>
Telephone:	800-737-5103
Fax:	603-516-1121
Contact:	<b>ESE Office of Student Assessment Services</b>
For questions on:	<ul style="list-style-type: none"><li>• policy, such as assigning accessibility features and accommodations</li><li>• student participation</li><li>• testing irregularities, including test security incidents and technology failures</li><li>• undoing test submissions for CBT</li><li>• student data and SIMS (See note below regarding SIMS.)</li></ul>
Hours:	8:00 a.m.–5:00 p.m., Monday–Friday during test administration windows  Between 7:00 a.m. and 8:00 a.m. during the test administration windows, MCAS Service Center representatives will receive calls to 781-338-3625, answer questions regarding logistics, and take messages for Department staff, which will be returned during our regular business hours.
Web:	<a href="http://www.doe.mass.edu/mcas/admin.html">www.doe.mass.edu/mcas/admin.html</a>
Email:	<a href="mailto:mcas@doe.mass.edu">mcas@doe.mass.edu</a>
Telephone:	781-338-3625
Fax:	781-338-3630

---

Contact:	<b>Pearson Technology Support Specialists</b>
For questions on:	<ul style="list-style-type: none"><li>• Technology set-up and site readiness</li><li>• Questions about TestNav</li><li>• ProctorCache set-up</li><li>• TestNav configurations in PearsonAccess<sup>next</sup></li><li>• Error messages or questions on creating PearsonAccess<sup>next</sup> sessions or TestNav configurations</li><li>• Infrastructure Trials (set-up as well as debriefing)</li></ul>
Hours:	10:00 a.m.–5:30 p.m., Monday–Friday
Web:	<a href="http://mcas.pearsonsupport.com/technology-setup/">http://mcas.pearsonsupport.com/technology-setup/</a> <i>Use the link above to schedule one-on-one support from Pearson's support specialists (i.e., Field Services Engineering). Technology coordinators may schedule a 15-, 30-, or 60-minute phone meeting with the Field Services Engineering team for "office hours" support.</i>

---

## **Table of Contents**

---

<b>Important Contact Information and Resources .....</b>	<b>i</b>
<b>I. Infrastructure Trial Overview .....</b>	<b>1</b>
<b>II. Using the PearsonAccess<sup>next</sup> Training Site .....</b>	<b>3</b>
<b>III. Technology Set-Up .....</b>	<b>4</b>
<b>IV. Generating Sample Student Records .....</b>	<b>15</b>
<b>V. Administering Accommodated Practice Tests .....</b>	<b>17</b>
<b>VI. Creating PearsonAccess<sup>next</sup> Sessions .....</b>	<b>20</b>
<b>VII. Preparing and Administering the Infrastructure Trial .....</b>	<b>24</b>
<b>VIII. The Day of the Infrastructure Trial .....</b>	<b>26</b>
<b>IX. Steps for the Test Administrator to Administer the Infrastructure Trial Practice Tests.....</b>	<b>27</b>
<b>X. Monitoring the Infrastructure Trial .....</b>	<b>31</b>
<b>XI. Follow-up .....</b>	<b>36</b>
<b>Appendix A: Terms Related to Computer-Based Testing .....</b>	<b>37</b>
<b>Appendix B: ProctorCache Recommendation for 2021 MCAS Computer-Based Testing .....</b>	<b>38</b>
<b>Appendix C: Best Practices for MCAS Computer-Based Testing Set-Up, Administration, and Troubleshooting .....</b>	<b>43</b>

## I. Infrastructure Trial Overview

### A. Purpose and General Overview

An Infrastructure Trial is an opportunity for districts, schools, and students to prepare for MCAS computer-based testing (CBT) by simulating test-day network utilization. This “dress rehearsal” will help to confirm that all testing devices are properly configured, that school and district networks can handle online testing, and that staff members are familiar with their role in administering an online test.

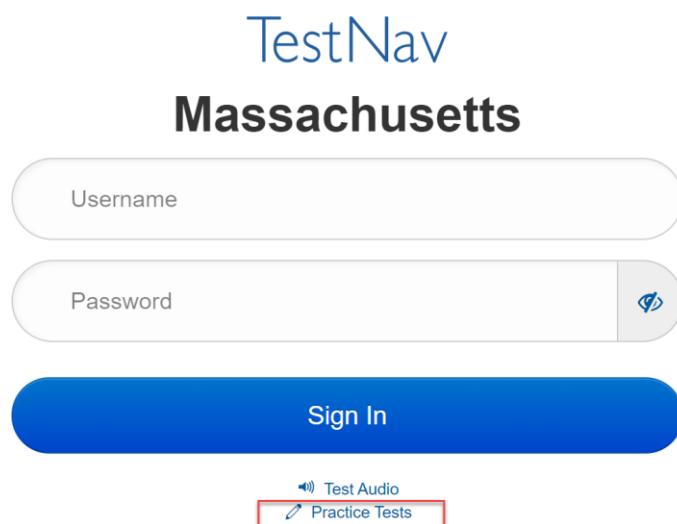
This trial is also an opportunity to introduce students to TestNav and practice using the online tools.

Conducting an Infrastructure Trial provides the school with a scheduled opportunity to practice administering a test in a low-stakes environment that can identify possible problems with technology and communication. This process will help avoid delays or issues during operational testing. Unlike during an operational administration, this trial will not use real student information (sample students will be created in the PearsonAccess<sup>next</sup> training site), but many of the other steps for an operational administration will be followed.

The Infrastructure Trial confirms:

- TestNav is configured correctly
- If precaching, the ProctorCache machine is properly configured to deliver test content to devices
- Devices can successfully run TestNav
- Participating staff know how to monitor and manage a computer-based MCAS test
- Students are familiar with the computer-based tools and format

Note that students participating in the Infrastructure Trial practice test will not receive a score at the end of the session; if schools would like for students’ practice tests to receive a score, schools should also administer the practice tests outside of the Infrastructure Trial. Scorable practice tests are available in the [MCAS Resource Center](#) and the TestNav Application login screen under the **Sign In** button as shown below.



## B. Scheduling the Infrastructure Trial

**New for 2021**, if your organization has previously successfully administered school-wide CBT, and you are able to confirm the five bulleted items on the previous page, your organization may **not** need to conduct an Infrastructure Trial.

If one or more items in this list cannot be confirmed, or if your technology setup has significantly changed since the last CBT administration (including schools that will be using Bring Your Own Device for the first time), an Infrastructure Trial **is** recommended.

The Infrastructure Trial should take approximately 60 minutes to administer. However, additional time is needed for the following set-up tasks prior to administration: training staff, creating sample student records, creating sessions, and configuring the network. The time involved will vary depending on the size of the school and the number of students testing at a given time.

See the [testing schedule and administration deadlines](#) for the recommended windows for conducting an Infrastructure Trial.

**New for 2021:** Please note the number of sessions available for each practice test for the Infrastructure Trial below.

Grades/Subjects	Sessions shown in PAN:	Students will take:
ELA (grades 3-8 and 10)	1 session	1 session
STE (grades 5 and 8)	2 sessions*	1 session
Math (grades 3, 5, and 6)	1 session	1 session (randomly assigned to session 1 or 2)
Mathematics (grade 4)	2 sessions*	1 session (randomly assigned to session 1 or 2)
Mathematics (grades 7 and 8)	1 session	1 session (randomly assigned calculator or non-calculator session)
Mathematics (grade 10)	3 sessions**	2 sessions

\*Ignore the second session in the Infrastructure Trial. In operational testing, the second session will consist of the questionnaire.

\*\*Ignore the third session in the Infrastructure Trial. In operational testing, the third session will consist of the questionnaire.

## C. Individuals to Include in the Infrastructure Trial

Everyone who will be involved in operational testing should be involved in the Infrastructure Trial. This may include the following:

- District test coordinator
- Principal or school test coordinator
- Test administrators
- Technology coordinator
- Students

**Note:** Due to reduced staff and students in schools, scaled-down versions of Infrastructure Trials are acceptable. These scaled-down versions should mimic as closely as possible the testing environments on test day.

## D. Planning an Infrastructure Trial

## ***Steps for the district test coordinator or principal/school test coordinator***

### **1. Create a communication plan for the Infrastructure Trial.**

A best practice is developing a communication plan for all of the staff members who have a role in administering computer-based tests.

Principals or test coordinators should establish communication with technology staff before the test schedule is set. The plan should document how to reach technology staff during operational testing as well as which individual (the technology coordinator or designee) will be designated to contact the MCAS Service Center in case of technology issues.

### **2. Schedule the Infrastructure Trial.**

Schedule the following activities as part of the Infrastructure Trial:

- Consult with the technology coordinator, and confirm that all of the student testing devices meet the [technical specifications](#).
- Designate appropriate testing locations (see guidance in the [Principal's Administration Manual](#)).
- Ensure technology staff have set up, installed, and configured all necessary software.
- Train all staff involved in the Infrastructure Trial.
- Identify all students who will participate in the Infrastructure Trial.  
A trial can be conducted with any number of students, but it is recommended that you include the maximum number of students you expect to be testing at the same time so that your trial approximates the anticipated load on your network.
- Have students practice TestNav navigation and tools by using the tutorial found at [mcas.pearsonsupport.com/student/](http://mcas.pearsonsupport.com/student/).
- Districts with a district test coordinator should inform their schools whether there will be a district schedule for administering the Infrastructure Trial.

## **II. Using the PearsonAccess<sup>next</sup> Training Site**

### ***Steps for the district test coordinator, principal/school test coordinator, test administrators, and the technology coordinator***

The [PearsonAccess<sup>next</sup> \(PAN\) training site](#) is used for the Infrastructure Trial (instead of the operational site) to create sample students, create PAN Sessions, set up TestNav configurations, and monitor student test progress.

Schools should create accounts for test administrators, as well as any other necessary staff members, following instructions in the *Guide to Managing Users in PearsonAccess<sup>next</sup>*, available online in [the MCAS Resource Center](#) under the User Information dropdown. New users who need access to multiple schools in a district, such as technology coordinators, should contact a district user for a PAN account. The MCAS Service Center can provide support if there are questions about adding new users.

Confirm that all staff members participating in the Infrastructure Trial have a user account for the training site and have been assigned their appropriate roles. To find a user in PearsonAccess<sup>next</sup>, select **Users** from the **Setup** dropdown menu. Here, search by last name or select **Show All** (the button next to the **search** button). To see a user's assigned role, click on the  icon and select the **Roles** tab. Refer to

the *User Role Matrix* and the *Guide to Managing Users in PearsonAccess<sup>next</sup>* on the [MCAS Resource Center](#) for more information about creating users and assigning roles, if needed.

Note that users with accounts from last school year may have been disabled due to inactivity or because the accounts were created with an “Active End Date.” Test coordinators should edit these accounts through the user interface or a file upload to restore access to PAN. Once this is completed, users should update their passwords.

**To log in to the training site for the first time (if you received an email notifying you of a new PAN account):**

- Click on the link in the email.
- Create a password. You will be prompted to enter it twice; then, click **Set Password**; and then, click **OK**.
- To return to the training site, go to <https://trng-mcas.pearsonaccessnext.com/>.
- Click **Sign In**, and enter your username and password on the next screen. Then select **Login**. Read the Privacy Policy and Terms and Conditions of Use, and then click **Accept**.

**Note:** The training site can be distinguished from the operational site by its brown banner at the top of most screens in PAN:

Training PearsonAccess<sup>next</sup>

**To log in to the training site for the first time (if you received an email notifying you of updated permissions to your PAN account):**

- Go to <https://trng-mcas.pearsonaccessnext.com/>.
- Click **Sign In**, and on the next screen enter your username and password from the operational site. Then select **Login**.

**To reset your password (if needed):**

- Go to <https://trng-mcas.pearsonaccessnext.com/>.
- Click on the **Forgot Password** link.
- Enter your username and email address (typically these will be the same), and then click **Request Password Reset**.

**Notes on logging in:**

- If you reset your password to the training site, you will automatically reset your password for the operational site, since usernames and passwords for both sites will always match.
- Users have five opportunities to log in correctly. After five unsuccessful attempts, the account will be locked, and the user will need to click **Forgot Password** on the home screen to reset the account password.

### **III. Technology Set-Up**

#### ***Steps for the technology coordinator before, during, and after the Infrastructure Trial***

**1. Review responsibilities for the Infrastructure Trial.**

The technology coordinator and technology staff will need to review roles and responsibilities for preparing schools to conduct the Infrastructure Trial and inform principals in the district. The technology coordinator and technology staff will need to determine local responsibilities, including

configuring devices and how information will be shared across the team for preparing the school to conduct the Infrastructure Trial. Once these roles and responsibilities have been established, they need to be shared with the principal.

## **2. Configure Internet firewalls, content filters, and spam filters.**

- Configure Internet firewalls, content filters, or spam filters to allow access to the Pearson domain. Verify content filter/firewalls and allow the appropriate sites, including:
  - \*.testnav.com:80
  - \*.testnav.com:443
  - \*.pearsontestcontent.com
  - \*.usertrust.com
  - \*.comodoca.com
  - \*.thawte.com
  - \*.google-analytics.com (recommended, but not required)

Allow local file access to the home directory.

- Configure the common applications listed below so that they will **not** launch on any student testing devices during the Infrastructure Trial or during operational testing:
  - Anti-virus software performing automatic updates
  - Power management software on laptops warning of low battery levels
  - Screen savers and sleep mode
  - Email with auto message notification
  - Calendar applications with notifications, such as Google Calendar
  - Pop-up blockers
  - Set automatic updates (iTunes)
  - Windows Accelerator
  - Mac OS three finger tap gesture on Macintosh computers with trackpads
  - Any other application that could have a popup message

## **3. Download the device-specific TestNav app.**

For desktop computers, laptops, iPads, Chromebooks, or Androids, download a device-specific TestNav application from the Apple Store, the Google Chrome Web Store, Google Play, or go to <http://mcas.pearsonsupport.com/technology-setup/>. Instructions on setting up and managing these devices are available at <https://support.assessment.pearson.com/x/HgACAO>.

## **4. Test the “lock down” settings.**

Student testing devices must be able to operate in a “lock down” state to temporarily disable features and applications that could present a security risk.

Schools can test the security lock down settings following these steps:

- For the TestNav app, open TestNav and navigate to the Massachusetts sign in page, and then click the user icon in the top right and choose “App Check” from the menu.
- A success message should display within a few seconds.
- If there is an error message, review the [device setup instructions for the TestNav app](#) or contact the MCAS Service Center.
- If the Configuration Identifier is entered, the App Check will also verify that the device has the appropriate permissions to the primary and, if specified, the secondary save locations. The identifier can be found in PAN on the **Create/Edit TestNav Configuration** page (Setup >

TestNav Configurations > Create/Edit TestNav Configurations).

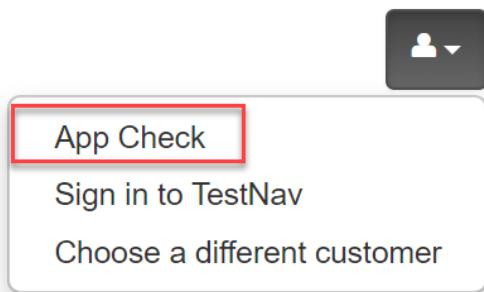
**Note:** ChromeOS devices: Peer-to-peer (P2P) networking should be disabled on ChromeOS devices. If it is available, devices can automatically update Chrome from nearby devices of the same model, resulting in an interruption in testing. Turn off this option in the Google Admin Console; it will help reduce errors and/or interruptions during testing. See Appendix B, section 1 (Technology Set-Up) for instructions on how to disable P2P networking on Chromebooks.

**Note:** ChromeOS devices should have accessibility features disabled prior to testing.

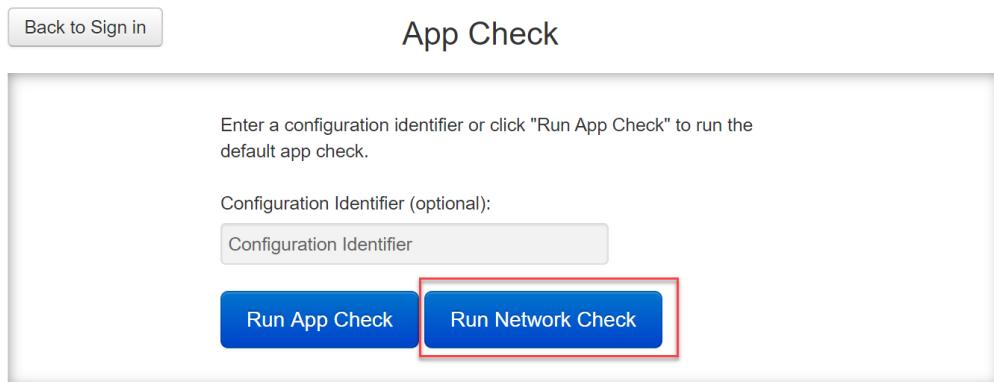
## 5. Run the Network Check in TestNav

Follow these instructions to test your network in TestNav and confirm if ProctorCache is needed.

In the TestNav app, click on the User dropdown and select **App Check**.



On the next screen, click **Run Network Check**.



On the following screen, you will be asked to enter a number of devices. This number should match as closely as possible the number of devices that will be used during testing on test day. Once a number has been entered, click **Start Diagnostics Test**.

**Network Check**

**X Cancel**

Estimate a school or test center's capacity to conduct online testing.

Number of devices

**Start Diagnostics Test**

Following this test, you will receive a message informing you whether ProctorCache is recommended based on your network and number of devices entered.

If ProctorCache is not recommended, you will receive a message with a green **Pass** icon.

Enter a configuration identifier or click "Run App Check" to run the default app check.

Configuration Identifier (optional):

**Run App Check**

**Run Network Check**

#### Network Diagnostics

Download

10.66 Mbps

Speed Test

#### Test Results Pass

Given the current load on your system, you should be able to test at this location.

Proctor Cache is **not** recommended

If Proctor Cache is recommended, you will receive a message with an orange **Warning** icon.

Enter a configuration identifier or click "Run App Check" to run the default app check.

Configuration Identifier (optional):

Run App CheckRun Network Check

### Network Diagnostics

Download	1.37 Mbps
Speed Test	

#### Test Results Warning

Given the current load on your system, you cannot successfully test at this location.

Proctor Cache is recommended

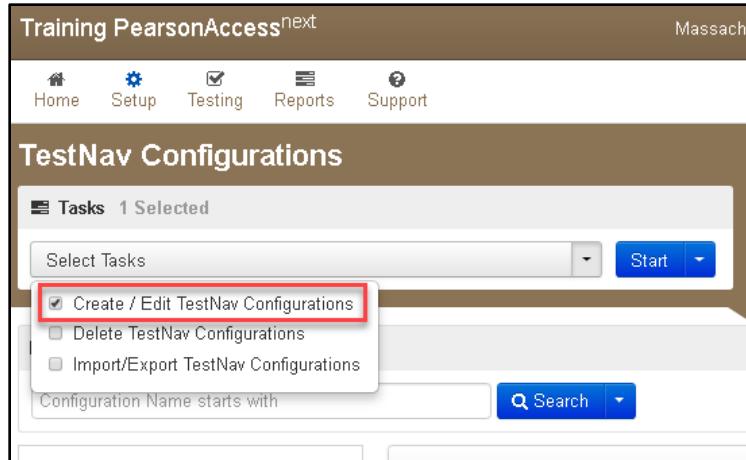
## 6. Review Appendix B: ProctorCache Recommendation for Winter/Spring 2021 MCAS Computer-Based Testing.

Follow the instructions to install, disable, or re-enable ProctorCache depending on the result of the Network Check.

## 7. Create the TestNav configuration.

The TestNav configuration enables you to set up Response File Backup Locations. If ProctorCache is used, the TestNav configuration will notify the student device where to access test content from the precaching machine once content becomes available. You may also change the default save location for encrypted backup files for TestNav in the TestNav configuration.

To create a TestNav configuration for your organization, select **TestNav Configurations** from the **Setup** menu on the PearsonAccess<sup>next</sup> homepage, and select **Create/Edit Configurations** from the **Select Tasks** dropdown menu, and complete the following steps.



a. **Complete the “Details” fields.**

- Enter a Configuration Name.
- If using ProctorCache, select the Precaching Computer Override option (recommended for most devices/configurations). If selected, this will allow students to continue testing, even if they lose connection to the ProctorCache computer. This may slow the loading time of the tests as the testing devices will no longer be getting content from a local device, but there will be no testing disruption.
- Select the school/organization that will use this configuration from the **Organizations** dropdown menu.

Tasks for Proctor Caching

Add Task < Previous Task Next Task > Exit Tasks

Create / Edit TestNav Configurations

**CONFIGURATIONS (0)**

**DETAILS**

New Cache Configuration

**Configuration Name\***

Precaching Computer Override ⓘ

**Organizations\***

Select

**Default Precaching Computer**

**Computer Name\***

**IP Address**

**Port**

Note: Confirm that firewall or content filtering software is open for both ports 4480 and 4481 of the proctor caching computer.

**Response File Backup Locations**

Please use the following format for SFTP file backup location: sftp://<userid>;<password>@<address>:<port>/path

**Windows, Primary Location ⓘ**

Use default user directory

**Windows, Secondary Location ⓘ**

**MAC, Primary Location ⓘ**

Use default user directory

**MAC, Secondary Location ⓘ**

**Android, ChromeOS, and iOS Secondary Location ⓘ**

**Linux, Primary Location ⓘ**

Use default user directory

**Linux, Secondary Location ⓘ**

**Create** **Reset**

b. If using ProctorCache, complete the “Default Precaching Computer” fields.

- Enter a **Computer Name** for the precaching machine.
- Enter an internal network **IP Address** of the precaching machine.
- Enter the **Port** number for the precaching machine, which will be 4480 for Pearson supplied ProctorCache software. If you will be using a non-Pearson supplied caching solution, uncheck the box next to “Uses Pearson Precaching Software” and then use the correct port for the non-Pearson software.

Tasks for Proctor Caching

Add Task Previous Task Next Task Exit Tasks

Create / Edit TestNav Configurations

**CONFIGURATIONS (0)**

**DETAILS**

**New Cache Configuration**

**Create** **Reset**

**Configuration Name\***

Precaching Computer Override ⓘ

**Organizations\***

**Default Precaching Computer**

**Computer Name\***

**IP Address**

**Port**

Note: Confirm that firewall or content filtering software is open for both ports 4480 and 4481 of the proctor caching computer.

**Response File Backup Locations**

Please use the following format for SFTP file backup location: sftp://<userid>;<password>@<address>:<port>/path

**Windows, Primary Location ⓘ**

**Windows, Secondary Location ⓘ**

**MAC, Primary Location ⓘ**

**MAC, Secondary Location ⓘ**

**Android, ChromeOS, and iOS Secondary Location ⓘ**

**Linux, Primary Location ⓘ**

**Linux, Secondary Location ⓘ**

c. Complete the “Response File Backup Locations” fields.

**Note:** Whether or not you are using ProctorCache, if you do not already have a Secondary save location set up, you will need to enter a Configuration Name, Organization, and Computer Name for the locations to save student response files.

- For the primary location, leave this field blank so the default remains the device the student is using to test. The Department recommends that a secondary save location also be designated on an internal network location.
- Enter the **Secondary** save locations for the students’ response files, which will be encrypted. There are options for Windows, Mac, and Linux devices, and there is an option to use an SFTP file backup location for mobile devices.

Tasks for Proctor Caching

Add Task | Previous Task | Next Task | Exit Tasks

Create / Edit TestNav Configurations

**CONFIGURATIONS (0)**

**DETAILS**

New Cache Configuration

**Create** **Reset**

**Configuration Name\***

Precaching Computer Override (?)

**Organizations\***

**Default Precaching Computer**

**Computer Name\***

**IP Address**

**Port**

Note: Confirm that firewall or content filtering software is open for both ports 4480 and 4481 of the proctor caching computer.

**Response File Backup Locations**

Please use the following format for SFTP file backup locations: `sftp:<userid>:<password>@<address>:<port>|path`

**Windows, Primary Location (?)**

**Windows, Secondary Location (?)**

**MAC, Primary Location (?)**

**MAC, Secondary Location (?)**

**Android, ChromeOS, and iOS Secondary Location (?)**

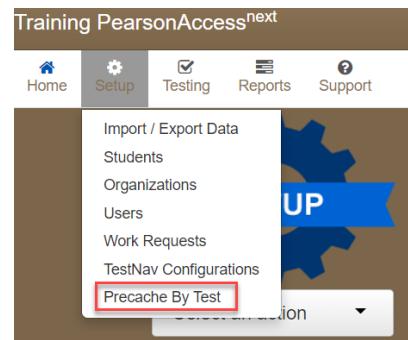
**Linux, Primary Location (?)**

**Linux, Secondary Location (?)**

d. Click "Create" to complete the configuration.

## 8. If using ProctorCache, precache test content by using the "Precache by Test" function.

a. Select "Precache by Test" from the "Setup" dropdown menu.



- b. Select the test(s) to cache and the “Precache Server,” and then click “Precache.”

Precache By Test			
Organization	Test (Select up to 10)	Precache Servers (Select one)	
SAMPLE SCHOOL (11111111)	<input checked="" type="checkbox"/> Grade 3 ELA <input type="checkbox"/> Grade 3 Math <input type="checkbox"/> Grade 4 ELA <input type="checkbox"/> Grade 4 Math <input type="checkbox"/> Grade 5 ELA <input type="checkbox"/> Grade 5 Math <input type="checkbox"/> Grade 5 Science <input type="checkbox"/> Grade 6 ELA <input type="checkbox"/> Grade 6 Math <input type="checkbox"/> Grade 7 ELA <input type="checkbox"/> Grade 7 Math <input type="checkbox"/> Grade 8 ELA <input type="checkbox"/> Grade 8 Math <input type="checkbox"/> Grade 8 Science	<input checked="" type="checkbox"/> Sample Computer ⓘ	<b>Precache</b>

- c. Click “Precache” in the pop-up message confirming the precaching computer.

**Precaching Computer:** Sample Configuration @ 192.168.0.0:4480

**Number of forms:** 4

**Total number of content elements:** 907

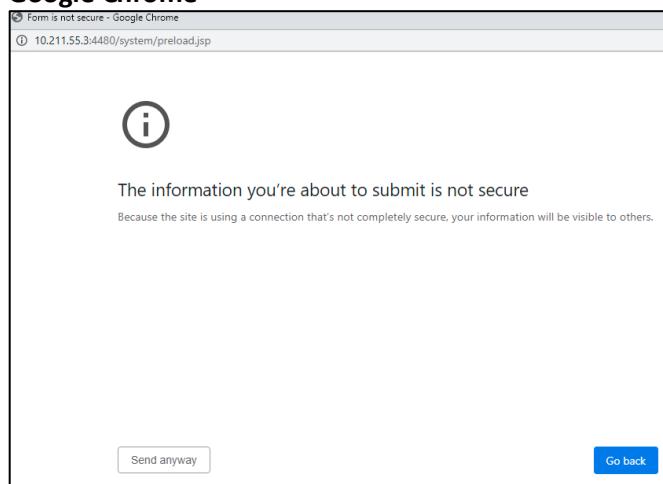
**Size:** 18,399 KB

**Click below to start the caching process**

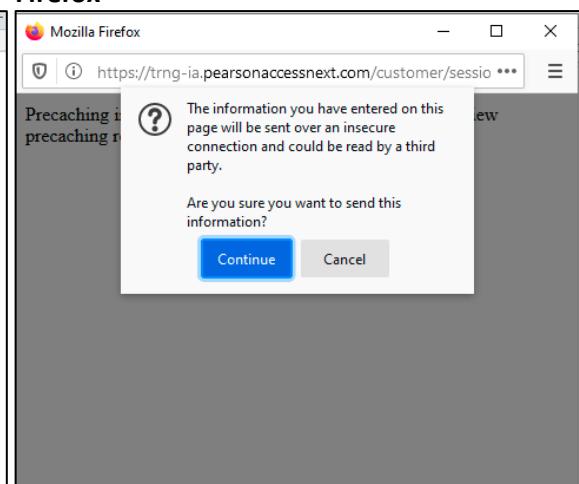
**Precache**

- d. While precaching test content, you may see an **additional prompt** depending on the Browser that is being used. **If you do not confirm, the content will not be cached.** More information can be found on the [Pearson Support Site](#). **Note:** If using Google Chrome, you may need to select the popup window from your task bar, as it may be minimized.

#### Google Chrome



#### Firefox



- e. A new window will open the ProctorCache diagnostic screen showing the precaching status.

You may need to enable pop-ups in your browser for PearsonAccess<sup>next</sup> to see this screen.

Tests		Refresh		Purge			Test	Search	Clear
	TEST	FORM		STATUS	ENTRIES		CACHE DATE		
<input type="checkbox"/>	Grade 3 ELA	Grade 3 ELA - 20EL03STONEN0101		OK	32		Feb 03, 2021	2:00 PM	
<input type="checkbox"/>	Grade 3 ELA	Grade 3 ELA - 18EL03STNREN9901		OK	26		Feb 03, 2021	2:00 PM	
<input type="checkbox"/>	Grade 3 ELA	Grade 3 ELA - 20EL03STTSENN0101		OK	824		Feb 03, 2021	2:00 PM	

## 9. Perform a “Preliminary System Test” (recommended).

Prior to students taking part in the Infrastructure Trial, the technology coordinator should perform a Preliminary System Test. The Preliminary System Test is an informal, small-scale Infrastructure Trial to help ensure systems are set up and in place before students participate. Technology coordinators should work with the principal or school test coordinator to follow the steps to create sample student records and a PAN Session. Then, technology staff should log in to several student devices and access a practice test to confirm that the devices are able to use TestNav.

## 10. Perform the following steps during the Infrastructure Trial.

- a. If applicable, ensure ProctorCache software is running.

Locate the caching computer’s IP address and, then in your browser, type **http://<IP address>:4480** and then press **Enter** to view the ProctorCache interface. View three tabs: Tests, Clients, and Help. Select the **Tests** tab for information about test content and caching status. Select the **Clients** tab to monitor client connectivity.

- b. Monitor network performance for slowdowns or ISP bandwidth usage.

- If testing devices are using a wireless connection, monitor the connections and verify that access point placement is sufficient for online testing
- Provide technology support as needed to the principal or school test coordinator and to test administrators.

## 11. Perform the following steps after the Infrastructure Trial.

- a. If you used ProctorCache, purge cached test content (recommended).

Note that if content is not purged, it will show in the caching interface in the next CBT administration.

In your browser, type **http://<IP address>:4480** and press **Enter** to view the ProctorCache interface. Choose the **Tests** tab to select the content to purge. A password is required to purge; the default password is **t35t1n6**.

Tests						Test	Search	Clear
TEST	FORM		STATUS	ENTRIES	CACHE DATE			
<input checked="" type="checkbox"/> Grade 3 ELA	Grade 3 ELA - 20EL03STONEN0101			32	Feb 03, 2021	2:00 PM		
<input checked="" type="checkbox"/> Grade 3 ELA	Grade 3 ELA - 18EL03STNRNEN9901			26	Feb 03, 2021	2:00 PM		
<input checked="" type="checkbox"/> Grade 3 ELA	Grade 3 ELA - 20EL03STTSEN0101			824	Feb 03, 2021	2:00 PM		

**b. Follow up on any issues that were identified.**

Following the Infrastructure Trial, there may be a need for technical follow-up and resolution prior to the operational test administration. Feedback from staff and students regarding TestNav performance, device connectivity, network performance, and access point placement should be used to conduct follow-up activities with the Infrastructure Trial team.

## IV. Generating Sample Student Records

### *Steps for the district test coordinator or principal/school test coordinator*

The Department recommends using sample student records instead of actual student data. Schools should determine the maximum number of expected concurrent testers during operational testing (e.g., 300 students testing on one day at 10:00 a.m.) in order to conduct their Infrastructure Trial with the same number of concurrent testers. The principal or test coordinator will then need to create sample student records in the training site, creating as many sample records as the number of students expected to participate in the Infrastructure Trial, as well as a 10 percent overage in case of login complications.

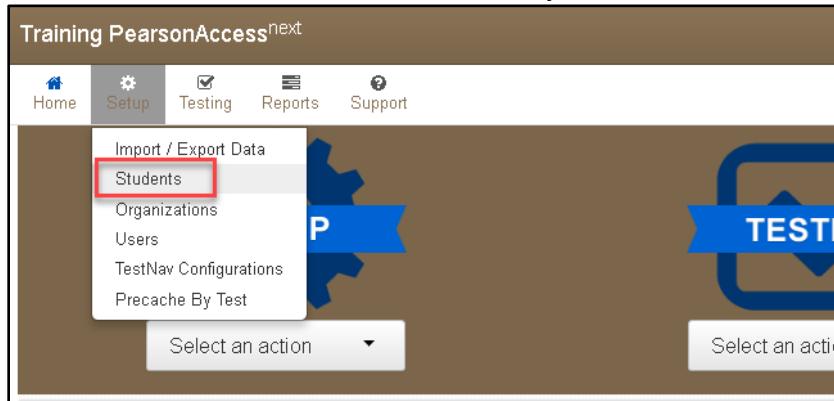
**Note:** The ability to generate sample student records exists only on the PearsonAccess<sup>next</sup> training site (this cannot be done in the operational site).

**To create sample student records:**

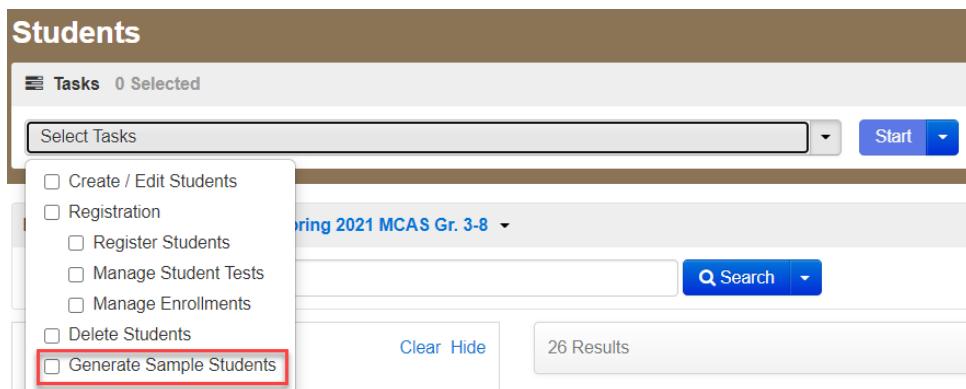
**1. Log in to the MCAS training site.**

Confirm that the correct administration is selected in the top right hand corner of PearsonAccess<sup>next</sup>.

**2. Click “Setup,” and then select “Students” from the dropdown menu.**



**3. Select “Generate Sample Students” from the “Select Tasks” dropdown menu, and then click “Start.”**



**4. Populate the following fields in the “Generate Sample Students” screen, and then click “Generate.”**

- **Organization:** Select your school/organization.
- **Group:** Select **Create New Group**, and enter a group name that is easy to find (e.g., grade, subject, and location). This will be used later to add students to a PearsonAccess<sup>next</sup> Session (see Section VI on pages 19–23).

**Note:** Creating groups is only available in the training site to facilitate adding sample students to test sessions. Student groups should not be used for operational testing.

- **Student Grade:** Select the grade in which the students are reported in SIMS.
- **Test:** Select the appropriate subject area test from the dropdown menu.
- **Test Format:** Select **Online**.
- **Number of Students:** Enter the number of students, up to a maximum of 99. It is recommended that you create at least 10 percent more students than needed, in case additional student testing tickets are needed.

The screenshot shows a software interface titled "Training PearsonAccessnext". The main menu bar has "Tasks for Students" and "Generate Sample Students". The "Generate Sample Students" window contains the following fields:

- Organization\***: A dropdown menu with "Select" option.
- Use Existing Group**: A link.
- New Group Name**: An input field.
- Student Grade\***: A dropdown menu.
- Test\***: A dropdown menu with "Select" option.
- Test Format\***: A dropdown menu.
- Number of Students\***: An input field.
- Between 1 and 99**: A note.
- \* Required**: A note.
- Generate** and **Reset** buttons at the bottom.

- Repeat steps 2–4 for each grade/subject for each group of sample students to be created.
- Upon request, DESE can place a pre-populated CSV file of sample students in schools' **MCAS 2021 Data** folder in [DropBox Central](#).
  - Records are representative of students in each school and include some pre-populated accommodations available the Infrastructure Trial.
  - After accessing the CSV file from DropBox, schools can assign appropriate session names and then import the file into the [PAN Training Site](#).
- Contact the Department's Office of Student Assessment Services at [mcas@doe.mass.edu](mailto:mcas@doe.mass.edu) to make this request.

## V. Administering Accommodated Practice Tests

### ***Steps for the district test coordinator or principal/school test coordinator***

Most, but not all, accommodations and accessibility features are available for the practice tests administered as part of the Infrastructure Trial. It is recommended to test third party software and hardware prior to live testing to ensure compatibility with the app.

The following SR/PNP-enabled accessibility features are available for practice tests in the Infrastructure Trial:

- **Alternative Background and Font Color:** The Alternative Background and Font Color is available for all of the grades 3–8 and 10 practice tests.

- **Answer Masking:** Answer Masking is available for all of the practice tests (listed above).
- **Alternate Cursor/Mouse Pointer:** Larger sizes and colors for the cursor are available for all practice tests (listed above).

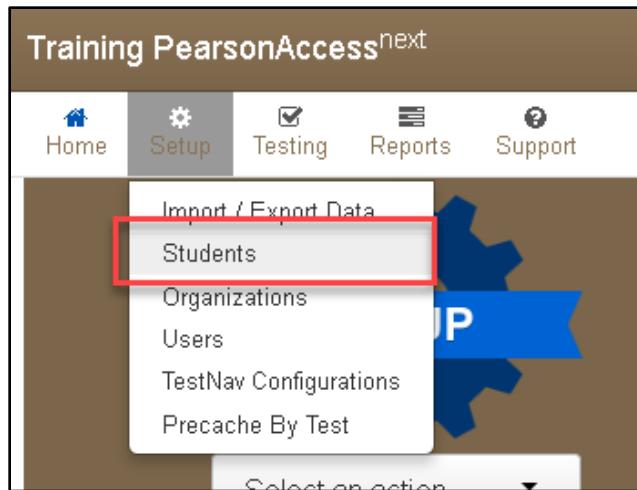
The following accommodations are available for practice tests in the Infrastructure Trial. Where noted by an asterisk, practice test editions are only accessed in the Infrastructure Trial and not via the app or in the MCAS Resource Center.

- **Text-to-Speech:** Text-to-Speech is available for all of the practice tests.
- **Compatible Assistive Technology\***: The Compatible Assistive Technology accommodated test Form is available only for the grade 3 ELA practice test; it is meant to be a sample for school staff to ensure that students' external AT software/hardware function as expected with TestNav prior to operational testing.
- **Screen Reader\***: The Screen Reader accommodation is available only for the grade 3 Mathematics practice test; it is meant to be a sample for school staff to ensure that students' external Screen Readers (e.g., JAWS) function as expected with TestNav prior to operational testing.
- **Web Extensions:** Co:Writer Universal and Read&Write web extensions are available for students who have speech-to-text and/or word prediction listed in their IEP or 504 plan. It is not necessary for Co:Writer Universal and/or Read&Write to be installed on a student's browser or computer, nor is a software license required. These are available for grades 3-8 ELA and grade 5 and 8 STE and 10 ELA practice tests. Web Extensions are **not** available on the Mathematics tests because they are unable to function correctly due to the conflicting requirements of the equation editor.
- **Human Reader/Human Signer:** These accommodations involve assigning a proctor testing ticket, so the students **must** be placed in a separate PearsonAccess<sup>next</sup> Session marked as a Human Reader/Human Signer session. No responses should be entered into the test using a Proctor Testing Ticket, as the responses will not be saved. (Students will log in and respond using their student testing tickets.) More information on this can be found in the [Guide to the Student Registration/Personal Needs Profile \(SR/PNP\) Process](#). These accommodations are available for all of the practice tests (listed above).
- **Spell-Checker:** The Spell-Checker accommodation is available for all grades 3–8 and 10 ELA practice tests.

For more information about accessibility features and accommodations, refer to the [Guide to the Student Registration/Personal Needs Profile \(SR/PNP\) Process](#). For information about assistive technology, refer to the [Guidelines for Using Assistive Technology as an MCAS Test Accommodation](#).

These accessibility features and accommodations, including accommodated test forms, **must be assigned prior to preparing and starting a PearsonAccess<sup>next</sup> Session**. Use the following steps to assign accessibility features and accommodations.

1. Click “Setup,” and then select “Students” from the dropdown menu.



2. Select the student whose test will be assigned an accommodation, and select “Manage Student Tests” from the “Select Tasks” dropdown menu.

A screenshot of the 'Students' screen in PearsonAccessnext. The title bar says 'Students'. Below it, there is a section titled 'Tasks 0 Selected' with a 'Select Tasks' dropdown menu. The dropdown menu contains the following options: Create / Edit Students, Registration (with Register Students as a sub-option), Manage Student Tests (which is highlighted with a red box), Manage Enrollments, Delete Students, and Generate Sample Students. To the right of the dropdown menu, there is a search bar with the text 'Spring 2021 MCAS Gr. 3-8' and a 'Search' button. At the bottom of the screen, there are buttons for 'Clear' and 'Hide', and a message indicating '26 Results'.

3. Select the subject area test on the left-hand side of the screen, and select the appropriate accessibility features and/or accommodations.

Manage Student Tests

**Test Filter**

Add  Filter by Test Status  
 Complete  Assigned

**STUDENT TESTS (1)**

STUDENT_NEW (2727317313)	Grade 5 Math	Assigned
--------------------------	--------------	----------

**TEST DETAILS**

STUDENT, NEW (2727317313)  
**Grade 5 Math**  
 Assigned

**Organization\*** PEARSON DEMO SCHOOL (11331133)

Remote Administration  
 First-year English learner (EL) status as of October 2020 SIMS

**Test Format\*** Online

**Special Test Forms**

<input type="checkbox"/> Text-to-Speech (A4.1, EL3.1 for Math/STE, SA1.1 for ELA) <i>(i)</i>	Select <input type="checkbox"/> Hum: <input type="checkbox"/> Hum: <input type="checkbox"/> Hum: <input type="checkbox"/> Hum: <input type="checkbox"/> -
---	--

Large Print Test Edition (A2) *(i)*  
 Braille Test Edition (A3.2) *(i)*

- 4. Recommended: Revise the sample student name so that the accommodated test is easier to find. Select the “Add Task” button on the top black bar, and then select “Create/Edit Student” and select the student record on the left to update the name and click “Save.”**

Tasks for Students

Create / Edit Students Manage Student Tests

**STUDENTS (1)**

<a href="#">Create Students</a>	STUDENT, NEW (1885975371)
---------------------------------	---------------------------

**DETAILS**

STUDENT, NEW (1885975371)   [Show Student Details](#)

**Organization\*** DSE TEST MIDDLE (0000003)

Updates to student information must also be made in SIMS. Contact your district SIMS coordinator to report any changes.

<b>First Name*</b> TEXT TO SPEECH	<b>SASID*</b> 1885975371
<b>Middle Initial</b>	<b>Date of Birth*</b> 2005-03-13 <input type="button" value=""/>
<b>Last Name*</b> STUDENT	<b>Gender</b> M - Male

\* Required

## VI. Creating PearsonAccess<sup>next</sup> Sessions

### *Steps for the district test coordinator or principal/school test coordinator*

After sample student records have been created, the district test coordinator, principal or school test coordinator will need to create online PearsonAccess<sup>next</sup> Sessions for the sample student practice tests,

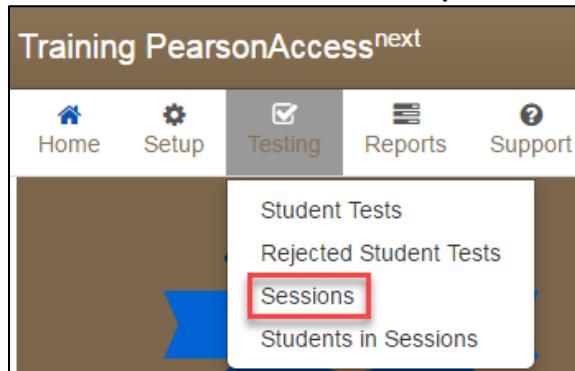
which are grade- and subject-specific. A PearsonAccess<sup>next</sup> Session is an electronic grouping of students in PearsonAccess<sup>next</sup> who will be testing at the same time and place. (This is different from subject test sessions, which is a term used for administration.)

Recommendations for creating PearsonAccess<sup>next</sup> Sessions:

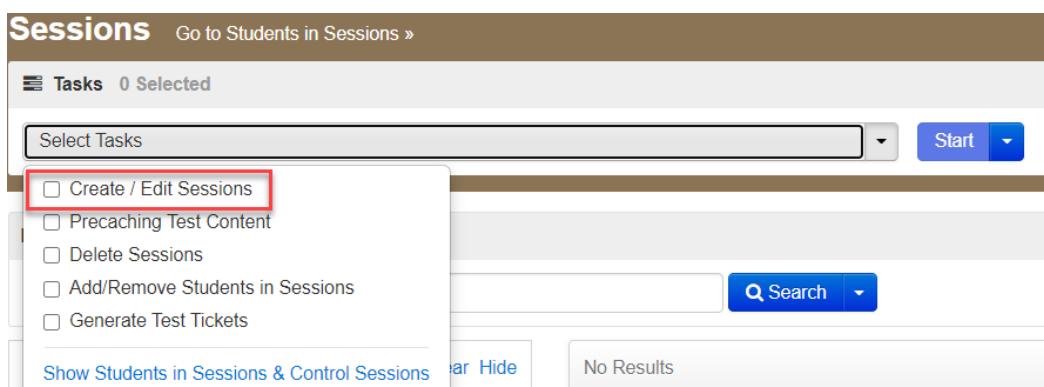
- Create a unique PearsonAccess<sup>next</sup> Session for each group that will be testing.
- Include the subject, testing location, and the name of the test administrator in the name of the PearsonAccess<sup>next</sup> Session.

## 1. Create PearsonAccess<sup>next</sup> Sessions.

- a. Click “Testing,” and then select “Sessions” from the dropdown menu.



- b. Click “Select Tasks,” select “Create/Edit Sessions,” and then click the blue “Start” button.



- c. Complete the “Details” screen.

- Enter the **Session Name**, and then select the **Organization** from the dropdown menu.
- Complete the **Test & Form** section by selecting the **Test Assigned** dropdown menu and choosing the appropriate practice test from the dropdown.
- Set **Form Group Type** to **Standard** from the **Form Group Type** dropdown.  
**Note:** Do not select the “Remote” option in the dropdown menu. Remote MCAS testing is not available at this time.
- If using **ProctorCache**, select the **Precaching Computer** from the dropdown menu.
- Enter the **Scheduled Start Date** and the **Scheduled Start Time**. (These are meant to be used for planning purposes only; entering incorrect information will not have an effect on when the practice tests can actually be administered.)

- Click in the box underneath “Students” to add individual students or click on the dropdown arrow next to the school code to instead find by group name created in section IV above (as shown in the following step).

Precaching Computer\*

Add

A pre-caching computer is required when there is one or more available.

**Find by Name or ID in PEARSON DEMO SCHOOL (11331133) ▾**

**Students**

Add students to session

\* Required

Create    Reset

- d. When selecting the option to find groups, the screen changes as shown below:

Find by Group in PEARSON DEMO SCHOOL (11331133) ▾

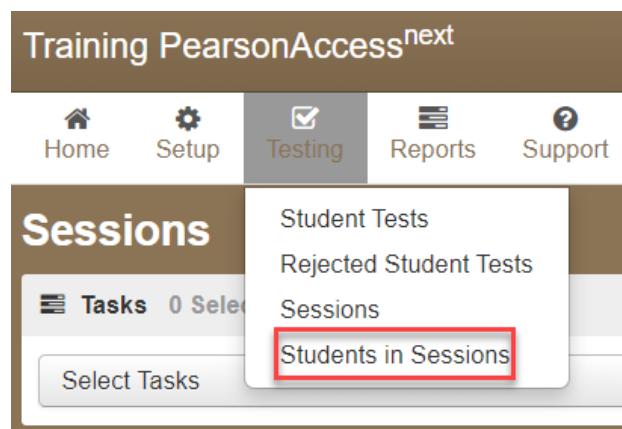
G5 MATH GROUP - PEARSON DEMO SCHOOL (11331133)

- e. Click “Create.”

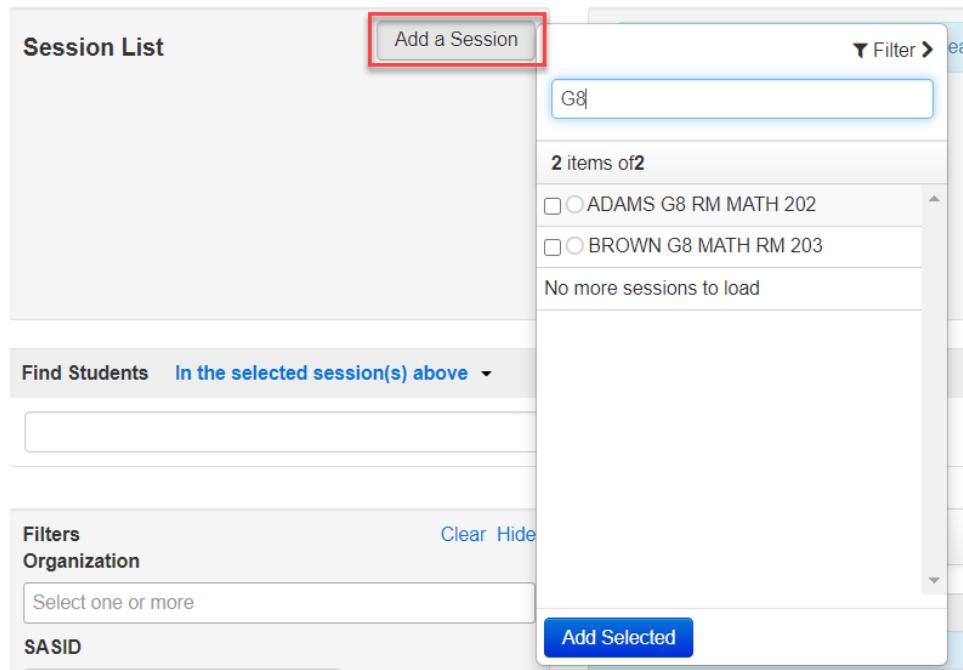
**2. How to add additional sample student records to a PearsonAccess<sup>next</sup> Session that has already been created (if necessary):**

Follow the steps below to add student records to PearsonAccess<sup>next</sup> Sessions, if the students were not included in the Session when it was created.

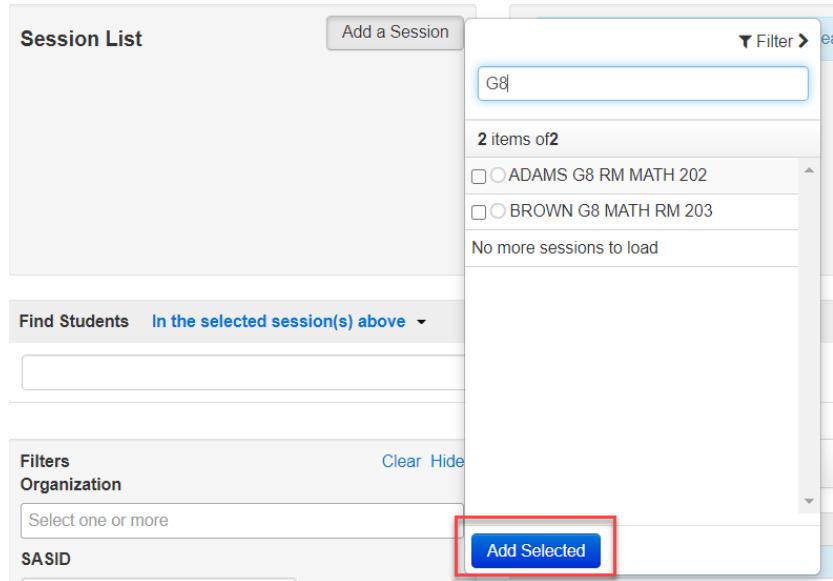
- a. Click “Testing,” and then select “Students in Sessions” from the dropdown menu.



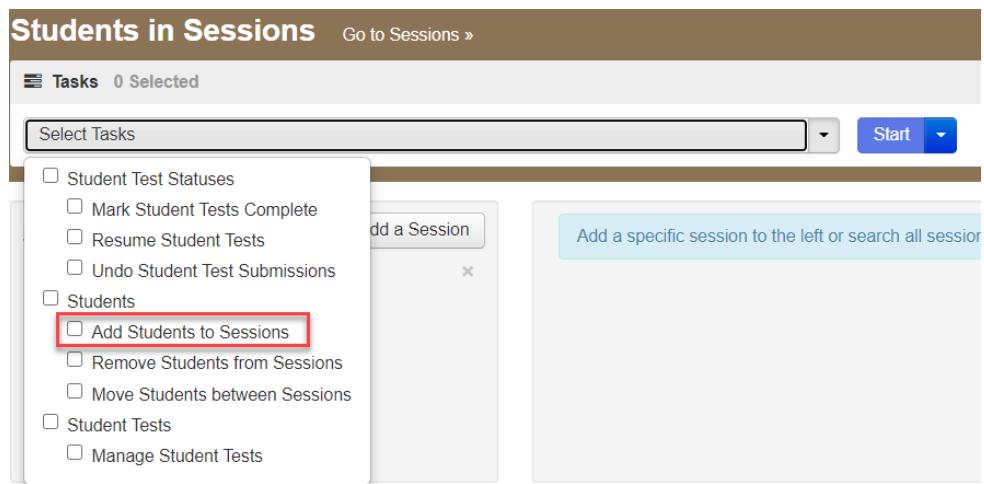
b. Select “Add a Session,” and search for the name of the Session to which you will add students.



c. Select the checkbox next to the name of the Session, and then click “Add Selected.”



d. Click on the “Tasks” menu, and select “Add Students to Sessions.” Then click “Start.”



e. In the “Find Available Students” box, find students to add to the Session.

Search for students by last name or select the “Show all Results” checkbox to see all available students. To add students from a previously created group, select the blue dropdown and select the “by Group” option.

Session	Organization	Group
ADAMS G8 RM MATH 202 (Grade 8)	KENNY SCHOOL (12313423)	
STUDENT, NEW (0731464222)	KENNY SCHOOL (12313423)	
STUDENT, NEW (0660949230)	KENNY SCHOOL (12313423)	
STUDENT, NEW (8070545137)	KENNY SCHOOL (12313423)	
STUDENT, NEW (1396353453)	KENNY SCHOOL (12313423)	
STUDENT, NEW (5462395131)	KENNY SCHOOL (12313423)	
STUDENT, NEW (8166352246)	KENNY SCHOOL (12313423)	

f. Select the student(s) to be added and click the “Add” button.

## VII. Preparing and Administering the Infrastructure Trial

### *Steps for the district test coordinator or principal/school test coordinator*

#### 1. Prepare each PAN Session.

PAN Sessions must be prepared by the principal or school test coordinator before they can be started. Preparing a PAN Session assigns the test form for the students, so it is important to make sure PNP information has been updated so sample students can be assigned an accommodated form as necessary. Preparing a PAN Session may take a few minutes depending on the number of students in the Session; preparing multiple PAN Sessions may take a longer time. It is recommended to prepare Sessions the day before planned testing to ensure that all forms are assigned correctly.

a. Go to the “Testing” tab and click “Students in Sessions.”

- b. Locate and click the session name from the Session List.

The **Sessions Details** screen will appear for the PAN Session selected. If multiple PAN Sessions are selected, the option to **Combine View** and **Prepare all Sessions** appears.

- c. Click the blue “Prepare Session” or “Prepare All Sessions” button.

The screenshot shows the 'Students in Sessions' interface. On the left, there's a 'Session List' with one item: 'ADAMS G8 RM MATH 202'. In the center, it says 'ADAMS G8 RM MATH 202' and 'Not Prepared'. On the right, there are buttons for 'Resources', 'Details', 'Edit', 'Prepare Session' (which is highlighted with a red box), and 'Refresh'. At the bottom left, it says '1 Sessions | Clear'.

- d. For grades 7 and 8 Mathematics: Determine which students need calculators. After sessions have been prepared, scroll down on the **Students in Sessions** screen. The number in the **Form** column on the **Students in Sessions** screen will end with either “01” or “02”. Students with forms that end in “01” have been assigned the noncalculator session. Students with forms that end in “02” have been assigned the calculator session.

<input type="checkbox"/> SASID	Last Name	First Name	Middle Name	Username	Session	Student Test Status	Form Group Type	Form
<input type="checkbox"/> 9265466625	STUDENT	NEW		1441227666	● BOB G7 MATH RM 107 (Grade 7 Math)	<span style="background-color: #ccc; border: 1px solid #ccc;">Ready</span>	Standard	Grade 7 Math - 20MA07STONEN0102 (20MA07STONEN0102)
<input type="checkbox"/> 7401692221	STUDENT	NEW		1849404548	● BOB G7 MATH RM 107 (Grade 7 Math)	<span style="background-color: #ccc; border: 1px solid #ccc;">Ready</span>	Standard	Grade 7 Math - 20MA07STONEN0101 (20MA07STONEN0101)

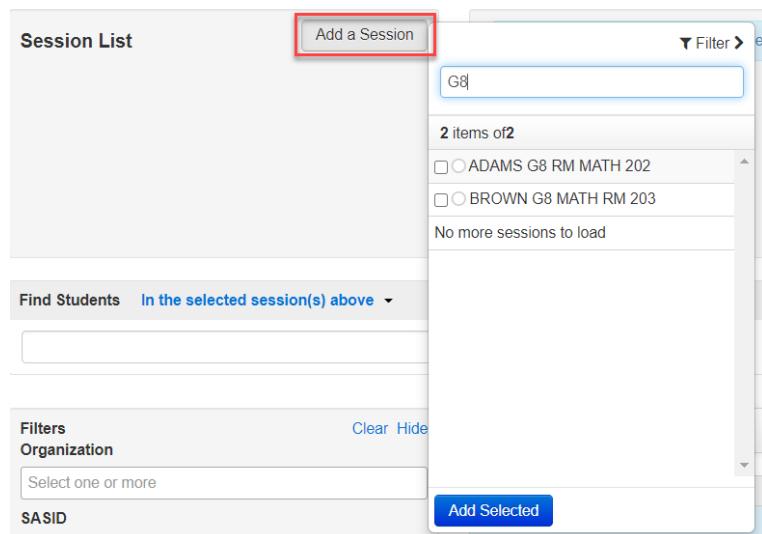
## 2. Print student testing tickets.

Student testing tickets include a login ID and password to log in to the practice tests, and are generated for each student added to a PAN Session.

- a. Once logged in to the training site, click “Testing,” and then select “Students in Sessions” from the dropdown menu.

The screenshot shows the PearsonAccessnext Training interface. At the top, there's a navigation bar with 'Home', 'Setup', 'Testing' (which is highlighted with a red box), 'Reports', and 'Support'. Below that, there's a sidebar with 'Sessions' and a dropdown menu. The dropdown menu has options: 'Student Tests', 'Rejected Student Tests', 'Sessions', and 'Students in Sessions' (which is highlighted with a red box). At the bottom of the sidebar, there's a 'Select Tasks' button.

b. Select “Add a Session,” and then search for the PearsonAccess<sup>next</sup> Session.



c. Select the checkbox next to the Session name, and click “Add Selected.”

d. To print student testing tickets, click on the “Resources” dropdown. There will be options to print tickets for all students or selected students.

3. The principal/school test coordinator or test administrators should verify the following with technology staff:

- All devices to be used for testing are charged.
- Sufficient power cords and power strips are available.
- Accessories, such as external keyboards for tablets and headphones for students using the text-to-speech edition, are available and in working order prior to testing.

## VIII. The Day of the Infrastructure Trial

*Steps for the district test coordinator or principal/school test coordinator*

1. Start the PAN Session.

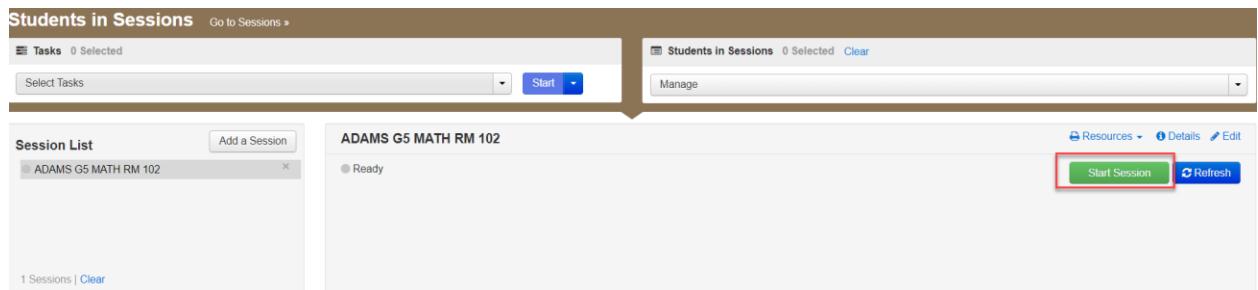
a. Click “Testing”, and then select “Students in Sessions” from the dropdown menu. (See a screen

shot on page 23.)

b. In the “Session List”, click on the names of the Sessions to start.

The Session Details screen will then appear for the selected Session(s). (If two or more Sessions were selected, options to Combine View and Start All Sessions will appear.)

c. On the “Session Details” screen, click on the green “Start Session” (or “Start All Sessions” button). After clicking this button, it will change to a Stop Session button.



2. **Prepare testing devices:** Launch the TestNav app on all testing devices.
3. **Distribute student testing tickets and proctor testing tickets if applicable:** Ensure that test administrators have the student testing tickets for all students assigned to them, and proctor testing tickets for the Human Reader or Human Signer accommodations. Make sure you do not hand out proctor testing tickets to students since responses are **NOT** saved in a test accessed with a proctor testing ticket.
4. **Direct test administrators and students to testing locations:** Direct test administrators and students to their assigned computer lab or other testing location.
5. **Conduct the test sessions:** Test administrators will unlock the Sessions and have the students log in to TestNav. This marks the beginning of the test session. The following section contains steps for test administrators during the Infrastructure Trial session.
6. **Oversee test administration:** During each test session, principals or school test coordinators should monitor the administration to ensure that testing is being completed as expected.
7. **Complete testing:** Students will complete one session for ELA, one session for grades 5 and 8 STE, one session for grades 3-8 Mathematics, and two sessions for grade 10 Mathematics.  
**Note:** Students will see additional sessions for grade 4 math and grades 5 and 8 STE, which can be ignored.

## IX. Steps for the Test Administrator to Administer the Infrastructure Trial Practice Tests

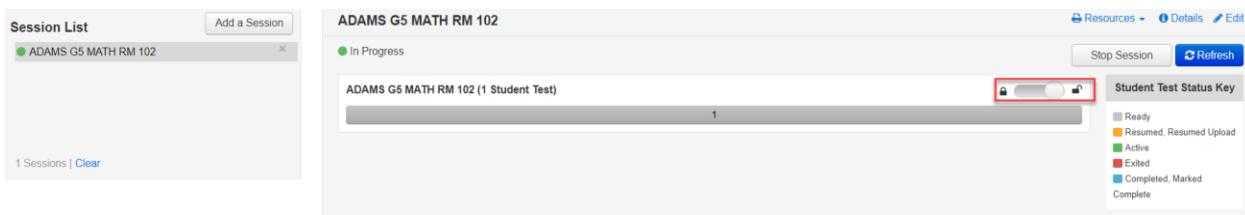
### A. Materials Needed for Infrastructure Trial

- 1. You will need the following materials available in your testing space prior to the Infrastructure Trial:**
  - testing devices for students
  - a computer with which to monitor testing sessions
- 2. Prior to the Infrastructure Trial, you will receive the following materials for students assigned to you by the principal or school test coordinator:**
  - student testing tickets
  - proctor testing tickets for Human Reader or Human Signer accommodations, if applicable
  - scratch paper and pencils
  - For grades 7 and 8 mathematics:
    - a list of which students have been assigned Mathematics Session 1 and which have been assigned Mathematics Session 2
    - handheld calculators (five-function calculators at minimum, although scientific or graphing calculators are recommended) for those students who have been assigned Mathematics Session 2 and who want to use a handheld calculator in addition to the calculators in TestNav. Students may also use their own handheld calculator.
- 3. Additional Preparations for Computer-Based Testing**
  - Ensure all devices to be used for testing are charged.
  - Make sure sufficient power cords and power strips are available.
  - Confirm that accessories, such as external keyboards for tablets and headphones for students using the text-to-speech edition, are available and in working order prior to testing.

## B. Before Students Arrive

- 1. On the test administrator device, log in to the PearsonAccess<sup>next</sup> training site (<https://trng-mcas.pearsonaccessnext.com>) and view your PAN Session on the Students in Sessions page.**
- 2. Start your PAN Session.**
- 3. Unlock students' tests.**

Students' tests will be locked, by default, in the **Students in Sessions** screen when a PearsonAccess<sup>next</sup> Session is started. Students will not be able to log in until the test session has been unlocked by the test administrator. The test administrator can unlock a test session for the entire class by selecting the unlock bar at the top of the **Students in Sessions** page.



Individual students' tests can also be unlocked one at a time by selecting the lock dropdown for a test session found to the right of the student's name on the **Students in Sessions** page.

1 Results								Displaying 25	Manage Columns
	SASID	Last Name	First Name	Middle Name	Username	Session	Student Test Status	Form Group Type	Form
<input type="checkbox"/>	7011600345	STUDENT	NEW		5099507645	ADAMS G5 MATH RM 102 (Grade 5 Math)	Ready	Standard	Grade 5 Math - 20MA05STONEN0102 (20MA05STONEN0102)

## C. Administer Infrastructure Trial (use of the script is optional)

The following script is provided in order to assist test administrators with the administration of the Infrastructure Trial practice test. Unlike the scripts in the *Test Administrator's Manuals* for use during testing, test administrators are not required to read the script verbatim.

1. Say to students:  
**"Our school is about to begin a practice session for the computer-based MCAS test. This is an opportunity for you to practice MCAS questions in an environment similar to that of the real test. You should use this practice test to become more familiar with the computer-based testing system, and with MCAS questions. Your responses on this practice test will not affect your actual MCAS scores in any way."**
2. Then say to the students:  
**"I will now distribute scratch paper for you to use during the session. If at any point you need more, raise your hand and I will give you an additional sheet. You may have up to three pages of scratch paper at one time."**
3. For students using the text-to-speech or screen reader accommodation, which requires headphones, say:  
**"Put on your headphones and make sure they are plugged in. On your screen next to the 'Sign In' button, click the link that says 'Test Audio.' Confirm you can hear through your headphones and adjust the volume as needed."**
4. Then say:  
**"I will now distribute the student testing tickets. Do not sign in until I instruct you to do so."**
5. Distribute the student testing tickets. Testing tickets may or may not have student names on them depending on how the tests were set up for Infrastructure Trial. Make sure you do not hand out proctor testing tickets to students since responses are **NOT** saved in a test accessed with a proctor testing ticket.
6. Say to students:  
**"Now, on the computer, enter the username that is shown on your student testing ticket. Your username is a number that is 10 digits long."**

Assist any students who need help entering their usernames. Then say:

**"Now, on the computer, enter the password that is shown on your student testing ticket."**

Assist any students who need help entering their passwords.

Then say:

**"Now, click the button that says 'Sign In.'"**

Walk around the room and make sure that all students have successfully signed in. Assist any students who did not successfully sign in. You may retype usernames and passwords for students, if necessary. Either collect the student testing tickets at this time, or at the end of the session.

7. For grade 4 Math, grades 5 and 8 STE, and high school ELA and Math: Once students are properly signed in, say:

**"Your computer screen should now be at the 'Available Tests' screen."**

**Click the blue button on the screen that says 'Start.' You should now see a screen that says 'Welcome.'**

For all others: Once students are properly signed in, say:

**"Your computer screen should now be at the 'Welcome' screen."**

8. For grades 7 and 8 mathematics, say:

**"Please keep your testing ticket with you and do not use it for scratch paper. I will need to collect it at the end of this test session."**

**Click the box in the middle of the screen that says 'Start.'**

**If your screen says 'Session 1' at the top, then you have been assigned a noncalculator session. The Session 1 questions have been designed to be answered without the use of a calculator. Your computer-based test will not include a calculator and you may not use a handheld calculator during the session.**

**If your screen says 'Session 2' at the top, then you have been assigned a calculator session. You may use the calculators included in your computer-based test or a handheld calculator during this session.**

**Neither Session 1 nor Session 2 is easier or more difficult than the other, so do not be concerned about which session you are taking or whether you are allowed to use a calculator or not. Just do your best on each question.**

Answer any questions that students have. Using your list of which students have been assigned Session 1 and which students have been assigned Session 2, ensure that students taking Session 1 do not use handheld calculators (unless they receive special access accommodation SA4). Distribute handheld calculators to students taking Session 2 who want to use them.

For all other tests, say to the students:

**"Please keep your testing ticket with you and do not use it for scratch paper. I will need to collect it at the end of this test session."**

**Click the box in the middle of the screen that says 'Start.' You should now see a screen that says 'Session 1' at the top and states the number of questions below. If your screen does not say 'Session 1,' please raise your hand."**

**Note:** Grades 3-8 Mathematics will see either Session 1 or 2.

**Note:** Students who are completing session 2 of the grade 10 Mathematics test should see a screen that says ‘Session 2’ at the top and states the number of questions below.

Assist any students who are not at the correct screen.

9. Then say to all students:

**“Please read the directions that are on your screen.”**

Pause to allow students to read the directions.

10. Then say to all students:

**“Click the ‘Start’ button. You may now begin your test.”**

11. At the **end of the session**, say to any students still working:

**“This is the end of the time scheduled for this session. At the top of the screen, click ‘Review’ and then click ‘End of Section.’ Click the ‘Submit Final Answers’ button to submit your answers. On the popup screen, confirm you’d like to ‘Submit Final Answers.’ When you’ve submitted your answers, exit the test by going to the User Dropdown Menu at the top, right hand corner of the screen and click ‘Sign out of TestNav.’”**

Collect testing tickets and scratch paper. Note that students will reuse testing tickets when doing Session 2 of the grade 10 Mathematics test.

## X. Monitoring the Infrastructure Trial

### ***Steps for the Test Administrator to Monitor a Practice Test Session as Part of the Infrastructure Trial***

#### **A. How to Monitor PAN Sessions**

Once an online test session has started, there are several tasks the test administrator may be responsible for, including resuming students, locking/unlocking sessions, and marking tests complete. The test administrator must have their own device to monitor the session and perform these actions.

The test administrator can use the **Students in Sessions** page to monitor students as they progress through each test session. The top of the **Students in Sessions** page contains a status bar for each test session. Underneath the status bar, each student will be listed, and the test administrator will be able to see the status of any particular student, as shown below.

The screenshot shows the TestNav Session Details interface. On the left, a 'Session List' panel shows 'ADAMS G5 MATH RM 102' is active. In the center, the 'ADAMS G5 MATH RM 102' session details are displayed, including a progress bar for 'ADAMS G5 MATH RM 102 (6 Student Tests)' with values 4, 1, 1. A red box highlights this progress bar. On the right, a 'Student Test Status Key' legend defines colors for Ready (grey), Resumed/Resumed Upload (orange), Active (green), Exited (red), Completed/Marked (blue), and Complete (light blue). Below the key, a table lists student results for the session, with a red box highlighting the first three rows.

SASID	Last Name	First Name	Middle Name	Username	Session	Student Test Status	Form Group Type	Form
7011600345	STUDENT	NEW		5099507845	ADAMS G5 MATH RM 102 (Grade 5 Math)	Exited	Standard	Grade 5 Math - 20MA05STONEN0102 (20MA05STONEN0102)
0376378966	STUDENT	NEW		8492378856	ADAMS G5 MATH RM 102 (Grade 5 Math)	Completed	Standard	Grade 5 Math - 20MA05STONEN0101 (20MA05STONEN0101)
4208320255	STUDENT	NEW		5709792624	ADAMS G5 MATH RM 102 (Grade 5 Math)	Ready	Standard	Grade 5 Math - 20MA05STONEN0101 (20MA05STONEN0101)

## B. Test Administrator Tasks in PAN

The following table lists the statuses that may appear for a student in the **Session Details** and a description of what each status indicates.

Student Status Key	
Status	Description
Ready	The student has not logged in to the session yet, but is ready to log in.
Active	The student is currently logged into the test.
Exited	The student has exited the test session, but has not submitted their responses yet (after a test session, after logging out to take a break, or if an error occurs). Students in Exited status will need to be resumed by a test administrator when they are ready to reenter the test. If a student logs out of a test session or if the testing device loses connectivity before the test is completed (or marked complete), the test will appear in Exited status. The test administrator will then need to resume the student's test (and the student will then appear as Resumed).
Completed	The student has completed the test session and has successfully submitted their responses.
Marked Complete	The student's test session has been marked complete by the principal/designee (the student did not submit their test in TestNav themselves).
Resumed	The student is ready to log back into the test session. This status appears after a student has completed one test session for a subject area but not both, if a student returns from a break and is ready to continue testing in that session, or when attempting to continue after an error occurs.
Resumed-Upload	The student is ready to log back into the test session, and some responses were not sent to the testing subcontractor's (Pearson's) servers before the student exited the test. When the student logs into a test with a Resumed-Upload status, a staff member must be present. TestNav will prompt the user to locate the saved responses from the designated save location and upload them to TestNav before the student's test can be resumed.

## C. How to Resume Students' Tests

If students exit the test for a break, or due to technical error, their tests will need to be resumed prior to reentering the test. Students can be resumed one at a time, or many at a time.

To resume one student at a time, go to **Testing > Students in Sessions** and select **Resume** from the dropdown next to the student's name.

SASID	Last Name	First Name	Middle Name	Username	Session	Student Test Status	Form	Group Type	Form
7011600345	STUDENT	NEW		5099507645	ADAMS G5 MATH RM 102 (Grade 5 Math)	Exited	Standard		Grade 5 Math - 20MA05STONEN0102 (20MA05STONEN0102)
0376378966	STUDENT	NEW		8492378856	ADAMS G5 MATH RM 102 (Grade 5 Math)	Resume	Standard		Grade 5 Math - 20MA05STONEN0101 (20MA05STONEN0101)
4208320255	STUDENT	NEW		5709792624	ADAMS G5 MATH RM 102 (Grade 5 Math)	Lock	Standard		Grade 5 Math - 20MA05STONEN0101 (20MA05STONEN0101)

To resume more than one student's test, go to **Testing > Students in Sessions**. Be sure the PAN Session is selected in the **Session List**. Check the box next to the student names whose tests are to be resumed, and select **Resume Student Tests** from the **Select Tasks** menu. Click **Start**.

Students in Sessions Go to Sessions »

Tasks 0 Selected

Select Tasks

- Student Test Statuses
  - Mark Student Tests Complete
  - Resume Student Tests
  - Undo Student Test Submissions
- Students
  - Add Students to Sessions
  - Remove Students from Sessions
  - Move Students between Sessions
- Student Tests
  - Manage Student Tests

Add a Session

Select the students whose tests you would like to resume, and click **Resume**.

Tasks for Students in Sessions

Add Task Previous Task Next Task Exit Tasks

Resume Student Tests

STUDENTS IN SESSIONS (2)		DETAILS	STUDENT TEST STATUS
<input type="checkbox"/>	STUDENT NAME (CODE)	SESSION (STUDENT TEST) ADAMS G5 MATH RM 102 (Grade 5 Math)	Exited
<input type="checkbox"/>	STUDENT, NEW (5093466074) <small>i</small>	ADAMS G5 MATH RM 102 (Grade 5 Math)	Exited
<input type="checkbox"/>	STUDENT, NEW (7011600345) <small>i</small>		

This action is not reversible.

\* Required

Resume Reset

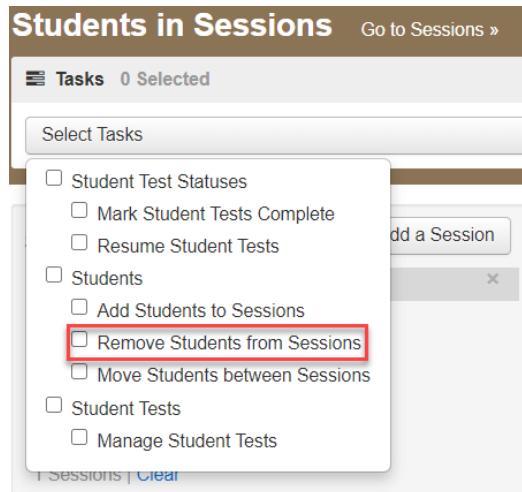
After clicking **Resume**, a message will display stating **Success, changes saved**. Click **Exit Tasks** to return to the **Students in Session** screen. The resumed student(s) will now be able to reenter the test.

## D. How to Stop a PAN Session

Before a PAN Session can be stopped, all students in the PAN Session must be either in Completed or Marked Complete status. You may also need to remove any students in Ready status who received testing tickets but did not log in to the test.

### To remove students in “Ready” status from a PAN Session:

- Go to **Students in Sessions** and check the box next to the student record(s) to be removed.
- Select **Remove Students from Sessions** from the **Select Tasks** dropdown and click **Start**.



Check the box beside the student record(s) and click **Remove**. Click **Exit Tasks** to return to the **Students in Sessions** screen.

Remove Students from Sessions

Remove Reset

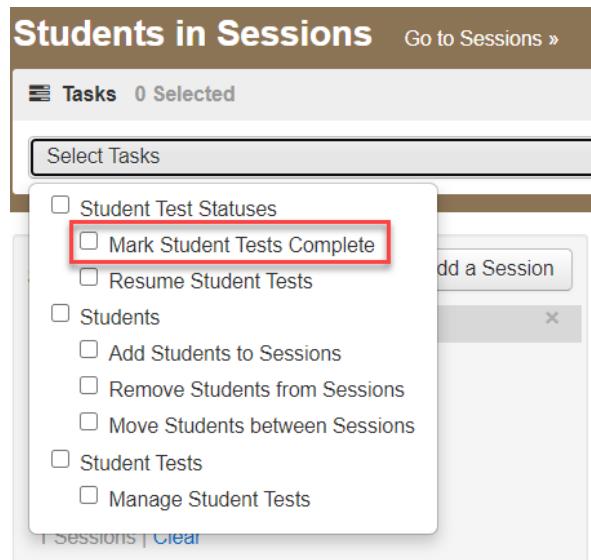
STUDENT NAME (CODE)	SESSION	STUDENT TEST	STUDENT TEST STATUS
STUDENT, NEW (4208320255) <small>i</small>	ADAMS G5 MATH RM 102	Grade 5 Math	Ready

\* Required

Remove Reset

**To mark a student's test complete for a student who logged on, but did not complete the test:**  
Go to the **Student in Sessions** page and check the box next to the student record(s) that need to be marked complete.

Select **Mark Student Tests Complete** from the **Select Tasks** dropdown. Click **Start**.



Enter the reason for marking the test complete. Click the **Mark Complete** button.

This screenshot shows the 'Mark Student Tests Complete' dialog box. It has a 'Reason\*' input field at the top, which is highlighted with a red box. To the right of the input field are 'Mark Complete' and 'Reset' buttons, both of which are also highlighted with red boxes. Below the input field is a checkbox 'Use the same Reason for checked Students in Sessions'. Underneath that is a table titled 'STUDENTS IN SESSIONS (1)'. It shows one student record: 'STUDENT NAME (CODE)' is 'STUDENT, NEW (7011600345)', and the 'SESSION (STUDENT TEST)' is 'ADAMS G5 MATH RM 102 (Grade 5 Math)'. The 'STUDENT TEST STATUS' is 'Exited'. A note below the table says 'This action is not reversible.' At the bottom are 'Mark Complete' and 'Reset' buttons.

Once all students in a Ready status have been removed, or are in a Completed or Marked Complete status, select the **Stop Session** button on the **Students in Sessions** page.

This screenshot shows the 'Students in Sessions' page. On the left, there is a 'Session List' with one item: 'ADAMS G5 MATH RM 102'. On the right, there is a detailed view for 'ADAMS G5 MATH RM 102'. It shows the student is 'In Progress'. At the top right of this view are 'Resources', 'Details', and 'Edit' buttons. Below that is a 'Stop Session' button, which is highlighted with a red box. To the right of the session details is a 'Student Test Status Key' table with the following entries:  
Ready (grey square)  
Resumed, Resumed Upload (orange square)  
Active (green square)  
Exited (red square)  
Completed, Marked Complete (blue square)

## **XI. Follow-up**

### ***Steps for the district test coordinator, principal/school test coordinator, test administrators, and the technology coordinator***

Once the school's Infrastructure Trial has been completed, staff participating in it should review their notes. Follow-up steps include the following:

- Share any notes regarding the need for support with the principal or test coordinator.
- Report to the principal or test coordinator any issues that could not be resolved with assistance from the MCAS Service Center.
- Schools may wish to schedule a call with [Pearson's technology support specialists](#) to review any issues with the Infrastructure Trial and to prepare for the test administration.

## Appendix A: Terms Related to Computer-Based Testing

**PearsonAccess<sup>next</sup> (PAN):** The online test management system for principals/test coordinators, technology coordinators, and test administrators to manage user accounts, register students, and upload selected accessibility features and accommodations via the Student Registration/Personal Needs Profile (SR/PNP), assign student tests, and set up Sessions. The PAN operational site is available at [mcas.pearsonaccessnext.com/](https://mcas.pearsonaccessnext.com/).

**PearsonAccess<sup>next</sup> Training site:** The online practice site to run the Infrastructure Trial. Usernames and passwords for the training site will match those for the live site. The training site is available at [trng-mcas.pearsonaccessnext.com/](https://trng-mcas.pearsonaccessnext.com/).

**PearsonAccess<sup>next</sup> Session:** An assigned group of students in PearsonAccess<sup>next</sup> who will be testing at the same time and place. (This is different from the actual “test session.”)

**TestNav:** This is the online test delivery platform for students. Technology requirements and set-up instructions can be found at [mcas.pearsonsupport.com/technology-setup/](https://mcas.pearsonsupport.com/technology-setup/).

## Appendix B: ProctorCache Recommendation for 2021 MCAS Computer-Based Testing

Below is an updated recommendation for 2021 on whether schools should use Pearson's ProctorCache software. ProctorCache precaches test content onto a designated machine in a school to reduce bandwidth requirements. ProctorCache does **not** store student responses, only test content.

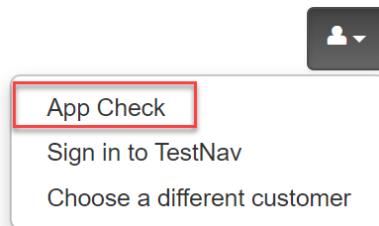
Now that 98 percent of Massachusetts districts meet the 100 Kbps/student [federal recommendation](#) for digital learning and online testing, ProctorCache is **only** recommended for schools who do not pass the Network Check in TestNav. ProctorCache is not recommended for schools that pass the Network Check because it can cause more errors to occur, and item load times with and without ProctorCache are virtually identical.

To determine whether your school needs to use ProctorCache, run the Network Check in TestNav.

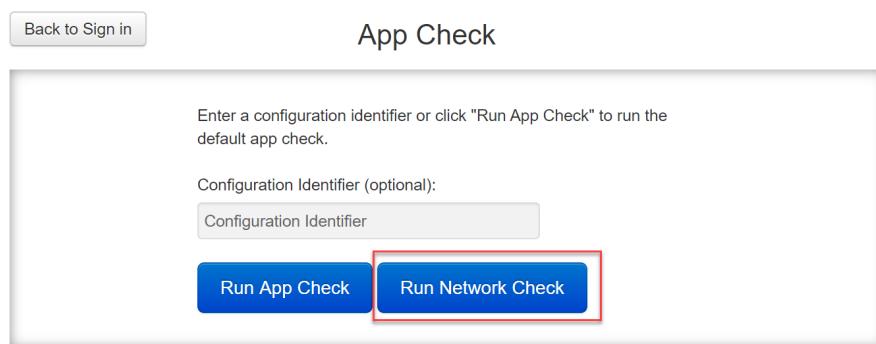
### Run the Network Check in TestNav

Follow these instructions to test your network in TestNav and confirm if ProctorCache is needed.

While on the school's network, in the TestNav app, click on the User Drop Down and select App Check.



On the next screen, click on Run Network Check.



On the following screen, you will be asked to enter a number of devices. This number should match as closely as possible the number of devices that will be used during testing on test day. Once a number has been entered, click on Start Diagnostics Test.

## Network Check

Cancel

Estimate a school or test center's capacity to conduct online testing.

Number of devices

100

**Start Diagnostics Test**

Following this test, you will receive a message informing you whether ProctorCache is recommended based on your network and number of devices entered.

If ProctorCache is not recommended, you will receive a message with a green **Pass** icon.

Enter a configuration identifier or click "Run App Check" to run the default app check.

Configuration Identifier (optional):

Configuration Identifier

**Run App Check**

**Run Network Check**

### Network Diagnostics

Download

10.66 Mbps

Speed Test

#### Test Results Pass

Given the current load on your system, you should be able to test at this location.

Proctor Cache is **not** recommended

If Proctor Cache is recommended, you will receive a message with an orange **Warning** icon.

Enter a configuration identifier or click "Run App Check" to run the default app check.

Configuration Identifier (optional):

Configuration Identifier

Run App Check

Run Network Check

## Network Diagnostics

Download

1.37 Mbps

Speed Test

### Test Results Warning

Given the current load on your system, you cannot successfully test at this location.

Proctor Cache is recommended

Network Check Result	ProctorCache Recommendation for Schools That Used ProctorCache in their Last CBT Administration	ProctorCache Recommendation for Schools That Did <u>NOT</u> Use ProctorCache in their Last CBT Administration
Pass	Disable ProctorCache prior to the Infrastructure Trial.	Do not install ProctorCache software.
Warning	Use ProctorCache.	<a href="#">Install ProctorCache.</a>

## Instructions to Disable and Re-Enable the ProctorCache Configuration

To disable the existing ProctorCache configuration in PearsonAccess Next, follow these steps:

1. Click on **Setup and TestNav Configurations**.
2. Click the dropdown next to the **Search** button, and click **Show All Results**.
3. Select your configuration and click the **Select Tasks** dropdown, select **Create/Edit TestNav Configurations**, and click **Start**.
4. Select your configuration on the left side of the screen and scroll down to the **Precaching Computers** section.
5. Delete the content in the **IP Address** and **Port** fields and then click **Save**.

To re-enable ProctorCache after disabling, follow the same steps and re-apply the **IP Address** and **Port** fields (these fields are shown in the screen shot below).

Schools using Mac OS devices for their ProctorCache machine should note that they will need to use a previous version of ProctorCache software since ProctorCache software for MacOS is not being updated. Contact the MCAS Service Center at 800-737-5103 for instructions.

The screenshot shows the configuration page for 'FSE Test'. At the top right are 'Save' and 'Reset' buttons. The 'Configuration Name\*' field contains 'FSE Test'. A checked checkbox labeled 'Precaching Computer Override' is present. Under 'Organizations\*', there is a single entry: 'PEARSON DEMO SCHOOL (11331133)'. In the 'Precaching Computers (1)' section, there is one entry: 'FSE Caching'. This entry includes a 'Computer Name\*' field with 'FSE Caching', a checked checkbox 'Default computer used for sessions', and two input fields: 'IP Address' and 'Port', both of which are highlighted with a red border. Below this is a 'Configuration Identifier' field containing '4JE7WE6P2A'. On the right side of the page, under 'Response File Backup Locations', there is a note: 'Please use the following format for SFTP file backup location: sftp://<userid>:<password>@<address>:<port>/path'. It lists four locations: 'Windows, Primary Location' (checkbox 'Use default user directory'), 'Windows, Secondary Location' (input field 'sftp://FSETest:FSETest123@10.0.0.100'), 'MAC, Primary Location' (checkbox 'Use default user directory'), and 'MAC, Secondary Location' (input field empty).

### **Best Practices for Using ProctorCache**

If ProctorCache is needed, a ProctorCache machine at the school level is recommended (a machine at the district level is not recommended). Using ProctorCache at the school level instead of at the district level will allow for continued connectivity during an Internet outage (if students have already logged in).

**Students configured to connect to a district ProctorCache machine may lose connection during an outage.** Schools with district configurations have also reported connectivity issues, as well as log-in issues, with larger numbers of students connecting to a single ProctorCache, which can overload the machine.

It is also recommended that the device selected to act as the ProctorCache machine during testing is reserved for this purpose only. A device performing other functions in the school can result in delays when students navigate from one question to the next during testing.

During test administration, if the school experiences a loss of Internet connection, students who are already logged into the test should be able to continue testing. If the Internet connection does not restore before students are finished, have the students exit TestNav. Then, write down the device IDs and have the students sign back in when the Internet connection is restored so that they can submit their final answers. If a student is testing on a Chromebook, do **not** power off the device unless there is a secondary save location already set up.

Schools can [set up a call with Technology Support Specialists](#) prior to testing. This is an opportunity for technology coordinators to receive support with the following:

- Technology set-up and site readiness
- Questions about TestNav
- ProctorCache set-up
- TestNav configurations in PearsonAccess<sup>next</sup>
- Infrastructure Trials (set-up as well as debriefing)

## Appendix C: Best Practices for MCAS Computer-Based Testing Set-Up, Administration, and Troubleshooting

The tables below describe some best practices for a successful computer-based test (CBT) administration:

1. Technology set-up
2. Steps for test coordinators and test administrators during test administration
3. Troubleshooting common computer-based testing issues

Further details will be provided in the spring 2021 MCAS *Principal's Administration Manual*. Direct technology questions to the MCAS Service Center at [mcas@cognia.org](mailto:mcas@cognia.org) or 800-737-5103 and policy questions to the Department at [mcas@doe.mass.edu](mailto:mcas@doe.mass.edu) or 781-338-3625, and contact the MCAS Service Center to report any technology issues that cannot be solved quickly at the local level. Prior to testing, technology coordinators can also set up a call with technology support specialists, as detailed in the table below. During testing, if there is a situation in which a student is waiting for more than 15 minutes, then schedule the student to complete the session at a later time.

### 1. Technology Set-Up

Best Practice	Steps to Take	Description
Determine whether to precache test content based on the school's bandwidth.	<ul style="list-style-type: none"><li>• Review the <a href="#"><i>ProctorCache Recommendation for 2021 MCAS Computer-Based Testing</i></a>.</li></ul>	If you decide to use precaching based on the result of the Network Check, download ProctorCache and set it up in PearsonAccess <sup>next</sup> for all test sessions.
Determine whether to conduct an Infrastructure Trial	<p>Review the <b>Infrastructure Trial Overview</b> in the <a href="#"><b>Infrastructure Trial Readiness Guide</b></a> on the <a href="#"><b>MCAS Resource Center</b></a>, which provides an overview and purposes of the infrastructure trial. The trial is designed to confirm that:</p> <ul style="list-style-type: none"><li>• TestNav is configured correctly</li><li>• If precaching, the ProctorCache machine is properly configured to deliver test content to devices</li><li>• Devices can successfully run TestNav</li><li>• Participating staff know how to monitor and manage a computer-based MCAS test</li><li>• Students are familiar with the computer-based tools and format</li></ul>	<p>If your organization has successfully administered school-wide CBT, and you are able to confirm the five bulleted items in the list to the left, your organization may <b>not</b> need to conduct an infrastructure trial.</p> <p>If one or more items in the bulleted list to the left cannot be confirmed, or if your technology setup has significantly changed since the last CBT administration (including schools that will be using Bring Your Own Device for the first time), an Infrastructure Trial is recommended.</p>

Best Practice	Steps to Take	Description
Verify that devices and operating systems meet system requirements prior to testing.	<ul style="list-style-type: none"> <li>Visit the <a href="#">system requirements</a> page for the most updated information.</li> <li>Turn off auto-update on Chromebooks to avoid auto-updating to an unsupported OS. See instructions under “Set up all Chromebooks” below.</li> </ul>	Operating systems, particularly iOS and ChromeOS, update frequently. Students may not be able to test or may experience interruptions if the testing device/operating system is not supported.
Set up all Chromebooks to suspend OS updates, including peer-to-peer, during testing.	Sign into the Google Admin console, go to <b>Device</b> , click <b>Chrome</b> , click <b>Settings</b> . Choose the organization you want to update these settings for. Go to <b>Device</b> , click <b>Auto Update Settings</b> , select <b>Block Updates</b> , click <b>Save</b> .	<p>If the ChromeOS is set to automatically update, this could take place during testing, which could cause student connectivity or device issues.</p> <p>This ChromeOS feature can be managed by a Chrome administrator. Chrome releases a full OS update about every 6 weeks, and releases minor updates approximately every 2–3 weeks.</p>
Disable ChromeOS accessibility settings.	Sign into the Google Admin console, go to <b>Device</b> , click on <b>Chrome</b> , click on <b>Settings</b> . Scroll down to <b>Sign-in screen accessibility</b> and select <b>Disable...</b> for the accessibility features you wish to turn off.	ChromeOS accessibility settings can interfere with supports the student may have in TestNav. Disabling ChromeOS accessibility settings prior to testing allows for the students’ supports to work smoothly.
Set up a Secondary Save Location in the TestNav configuration in PAN.	When in PAN, click <b>Setup &gt; TestNav Configurations &gt; Create/Edit Configurations</b> . On the right-hand side, there are fields to set up a secondary save location on a local server.	<p>Setting up a secondary save location will allow TestNav to write a student response file to both the device as well as the secondary location. It provides a backup in case of a lost response due to a connectivity, power, or device issue, when the primary response on the student device cannot be located. In the case of Chromebooks set to wipe data, this step is necessary to create a backup file of each student response.</p> <p>Chromebooks, iPads, and Android Tablets can <b>only</b> use an SFTP server for secondary save locations. These mobile devices cannot use UNC paths or mapped network drives. An example of the required SFTP path format is provided in the TestNav Configurations Menu.</p>

Best Practice	Steps to Take	Description
Minimize system impact	<p>Before testing:</p> <ol style="list-style-type: none"> <li>1. Disable low-end wireless protocols that are not being used.</li> <li>2. Turn off students' cell phones to avoid potential interference during testing.</li> <li>3. Ask classrooms to stagger logins to minimize initial loading time. For example, in a class of 30 students, the proctor can have 10 students log in each minute, decreasing the strain on the network.</li> </ol>	Taking these steps in advance of testing will reduce the impact of testing on local networks.
Schedule a call with Technology Support Specialists	<p>Before testing, <a href="#">schedule a 15-, 30-, or 60- minute call</a> for one-on-one support with Pearson's technology support specialists (i.e. Field Service Engineering).</p>	<p>This is an opportunity for technology coordinators to receive support with the following:</p> <ul style="list-style-type: none"> <li>• Technology set-up and site readiness</li> <li>• Questions about TestNav</li> <li>• ProctorCache set-up</li> <li>• TestNav configurations in PearsonAccess<sup>next</sup></li> <li>• Infrastructure Trials (set-up as well as debriefing)</li> </ul>

## 2. Steps for Test Coordinators and Test Administrators During Test Administration

Best Practice	Steps to Take	Description
<p>Have the following materials available, and confirm if they are in working order:</p> <ul style="list-style-type: none"> <li>• power cords, power strips, extra batteries, extra computers to serve as back-up devices that can be used if needed</li> <li>• computer mice and wired external keyboards (strongly recommended for students using tablets)</li> <li>• headphones for students with disabilities using the text-to-speech accommodation (See the <a href="#">Accessibility and Accommodations Manual</a> for details.)</li> </ul> <p>Ensure that devices will be charged prior to each test session.</p>	<ul style="list-style-type: none"> <li>• Use <a href="#">the device planner</a> to determine the number of devices needed at a given time.</li> <li>• Students who will be using a touchpad (only) should complete practice tests with the touchpad to familiarize themselves with answering the different question types prior to testing.</li> <li>• External keyboards are strongly recommended due to the smaller screen size on a tablet when using the internal keyboard.</li> </ul>	<p>Schools have reported that some students had a challenging experience with some of the technology-enhanced test questions when they used a touchpad (only).</p> <p>Schools have reported that students cannot see all the parts in a test question or all the writing space available due to the reduced screen size when the keyboard pops up.</p>
Keep a log of the devices that students will use during testing.	Mark the local device ID number on each student's testing ticket or an internal tracking form, or maintain a spreadsheet.	If a student's device experiences an interruption in testing, responses are saved on that device. If it appears that the student is "missing answers," resume the student's test in PAN and have the student sign back into TestNav on the <b>same device</b> to transmit responses. If the device cannot be located, and there is no secondary save location, there is no way to find a student response file.
If the student is in Resumed Upload status, <b>do not</b> skip upload when prompted by TestNav.	Contact the technology coordinator to upload the student response file for the student.	"Skipping upload" tells TestNav that there is no student response file to be found, and the system will then auto-delete any previous student response files and create a new one. If the student had missing responses, there will be no file to locate.

### 3. Troubleshooting Common Computer-Based Testing Issues

Issue	Solution
Loss of Internet connection	<ul style="list-style-type: none"><li>If the Internet connection does not restore before students are finished, have the students exit TestNav, write down the device IDs, and have them sign back in <b>on the same testing device</b> when the Internet connection is restored, so that the students can submit their final answers. If the student is testing on a Chromebook, do <b>not</b> power off the device, unless there is a secondary save location already set up.</li><li>If the issue cannot be resolved immediately, the test administrator should instruct students to stay logged out of TestNav. Testing can resume when Internet connectivity is restored that day (or the next day if connectivity is not immediately restored).</li></ul>
Loss of power	<ul style="list-style-type: none"><li>When power is restored, the test administrator should instruct students to log back in on the same testing devices; this will ensure that all saved responses are transmitted properly.</li><li>If a school uses Chromebooks that are set to wipe data on reboot, the technology coordinator will need to find students' response files in the secondary save location and upload them to TestNav before the students' tests can be resumed.</li></ul>
A student runs out of space on the ELA test, or the character counter shows 0.	<ul style="list-style-type: none"><li>Check the character counter to see if the student used all of the available characters. If the student has reached the maximum number of characters, instruct the student to edit their work so that it will fit in the space provided.</li><li>Students whose computer shows fewer characters than what appears on-screen may have hidden spaces or other characters in the text box taking up space. To restore the full character count, highlight the entire box, scrolling all the way down to catch any hidden characters, and click delete.</li></ul>
A student started testing with the wrong accommodation (e.g., a student needs text-to-speech but does not have TTS enabled).	<ul style="list-style-type: none"><li>Follow the steps in the “Resolving Incorrect Accommodations During Testing” module, which is available at <a href="https://mcas.pearsonsupport.com/training/">mcas.pearsonsupport.com/training/</a>.</li></ul>
TestNav Error Codes	<ul style="list-style-type: none"><li>TestNav error codes contain a reference number that can be used to troubleshoot the issue and view recommended actions. Error codes are available here: <a href="https://support.assessment.pearson.com/display/TN/Error+Codes">https://support.assessment.pearson.com/display/TN/Error+Codes</a></li></ul>