System and Bandwidth Requirements

The following sections indicate the minimum system requirements for Web-based MAP usage.

Student Testing Requirements

	Operating System	Browser	Other
Windows® PC	Windows XP* with Service Pack 3 (32-bit) or Service Pack 2 (64-bit); Windows Vista®; or Windows 7 or 8 or 8.1	MAP lockdown browser for PC, Aug 2013 release (5.0.165.0) or later recommended	.NET Framework 3.5 or higher (included with lockdown browser installation if not on computer)
Macintosh®	Mac OS® X v10.5.8*, v10.6.8*, v10.7, v10.8, or v10.9 (v10.5.8 retiring on 7/1/14)	MAP lockdown browser for Mac, Aug 2013 release (3.0.0.2) or later recommended, running on: Safari® 5, 6, or higher (v.5 retiring on 7/1/14)	
iPad® 2 or higher (not iPad mini)	iOS 6 or 7 **Note:** MAP testing only—Primary Grades not supported	Safari® 6 or higher (No lockdown browser)	Use Guided Access feature to secure testing
Chromebook™	Google Chrome™ OS 29 or higher	Chrome 29 or higher (No lockdown browser)	Use Chrome Management console to secure testing

Other requirements: Headphones for MAP for Primary Grades testing. See also the System Administration Guide for iPad and Chromebook setup instructions.

Administration and Reporting Requirements

	Operating System	Internet Explorer	Safari	Firefox	Chrome
Windows® PC	Windows XP* with Service Pack 3 (32-bit) or Service Pack 2 (64-bit); Windows Vista®; or Windows 7 or 8 or 8.1	8, 9 or 10 (v.8 retiring on 7/1/14)		19 or higher	23 or higher
Macintosh®	Mac OS® X v10.5.8*, v10.6.8*, v10.7, v10.8, or v10.9 (v10.5.8 retiring on 7/1/14)		5 or 6 (v.5 retiring on 7/1/14)	19 or higher	23 or higher
Chromebook™	Google Chrome OS (v29 or higher is best)				23 or higher
iPad®	Not supported at this time				

Other requirements: PDF viewer, such as Adobe Reader®. Also, follow specific browser settings, such as allowing cookies and pop-ups for the MAP URL; see the *System Administration Guide*.

* This operating system (OS) version is no longer supported by the manufacturer. See Upcoming Changes on page 2.

Hardware Specifications

Computer hardware must meet the minimum requirements specified by the manufacturers of the operating system and browser in use. Hardware that exceeds the minimum is recommended for an optimal experience. The resources for Web-based MAP are similar to other Web-based applications. For computer display, follow these specifications:

- Screen Resolution: 1024 x 768 or more
- Color Depth: 32-bit recommended (minimum 16-bit)

Upcoming Changes

Beginning July 1, 2014 NWEA will no longer support the following:

- Mac OSX 10.5.8 for testing or for reporting/administration
- Safari version 5 for testing or for reporting/administration
- Internet Explorer version 8 for reporting/administration (on Windows XP, use Chrome or Firefox instead)

Operating Systems: Currently, NWEA is continuing to support our partners that are using Windows XP or Mac OS v10.6.8. However, without manufacturer support, NWEA will have less ability to ensure stable testing with the lockdown browser and other features. In the future, NWEA will retire support for these OS versions and does not recommend you use them.

Network Bandwidth

The following bandwidth recommendations provide guidance for MAP testing and are based on best estimate calculations. Test sites that do not meet these recommendations will be able to deliver assessments, but may experience delays.

- MAP testing — **2 Mbps** for every 30 computers concurrently testing
- MAP for Primary Grades testing — **3 Mbps** for every 30 computers concurrently testing. More bandwidth is required because of audio and interactive features
- Look for limitation points in your internal network (such as school-to-district connections when the district has the main Internet connection)
- You may need to calculate the bandwidth requirements separately for each test season, depending on the tests planned. The requirements increase when you test more students, more subjects, or more schools.

Note: Additional bandwidth is needed at the beginning of each test. The initial load is approximately 2.2 MB, and the load time varies based on available bandwidth.

To perform an Internet speed test, use a Web site such as www.speedtest.net and select Portland, Oregon (the primary location of NWEA servers). For each building where testing will take place, perform the test at different times during the school day.

Firewall and E-mail Configuration

For the following URLs, you should: add to your white lists, exclude from caching, and prioritize the traffic. Example equipment includes your firewall (hardware and software), content filter, and proxy server/cache. Allow the changes to propagate before testing.

- **Sites for test and administration:**

  ```
  http://www.nwea.org/warmup/
  *.mapnwea.org
  ```

  Or, if you cannot use the asterisk (*) wildcard character:

  ```
  https://teach.mapnwea.org
  https://test.mapnwea.org
  https://cdn.mapnwea.org
  ```

  Note: Starting June 2014, you can no longer use the prior MAP testing URL: pdx-map01.mapnwea.org.

- **Sites for MAP documents and training:**

  ```
  http://nwea.adobeconnect.com
  http://www.nwea.org/resources/
  https://lms.nwea.org/
  ```

- **OPTIONAL:** Include your custom URL (like districtX-admin.mapnwea.org), if previously issued to you by NWEA. (However, NWEA can no longer create new custom URLs for MAP.)

- **RECOMMENDED:** Allow the sender address, MAP-AutoResponder@nwea.org, in your e-mail system so that automated e-mail gets received by staff with their name and password to access MAP.

NWEA