

## Appendix M: PARCC and DC Science Assessments for Students with Visual Impairment, Including Blindness

### PARCC and DC Science Assessments and Students with Visual Impairment, Including Blindness

#### I. Purpose of this Guidance

The Partnership for Assessment of Readiness for College and Career (PARCC and DC Science) Assessments are provided online, in regular print, large print and braille. This document is for Test Coordinators, Test Administrators, test transcribers and teachers to clarify issues and potential questions for students with visual impairments, including blindness. Given the innovative approach to the assessments, students with visual impairments who receive instructional and assessment accommodations, and those professionals that work with them, will need to plan ahead for testing to ensure that students have all necessary tools and materials available to complete assessment tasks. All accommodations must be documented in the student’s Individualized Education Program (IEP) or 504 plan.

#### II. Frequently Asked Questions (FAQ)

##### 1. Who is an Eligible Test Administrator?

In general, the following individuals may serve as a Test Administrator:

- Individuals employed by the Local Education Agency (LEA) as teachers
- LEA and school-level administrators
- Other certified educational professionals

Refer to Appendix C: State Policy Addendum in the *Test Coordinator Manual* for Test Administrator qualifications for your state. Eligible Test Administrators and proctors must attend training and follow test procedures and protocol.

##### 2. What is included in the braille/large print versions of the tests? What additional materials do I need?

Large print and braille versions of the tests are used by students who have this presentation format identified in their IEPs or 504 plans for instruction and assessment. Charts in Section III of the Test Administrator Manual identify the materials packaged with each large print and braille test and additional needed materials. Additional materials needed must be documented in the student’s IEP or 504 plan, except for the following items:

- Test Administrator Manual
- No. 2 pencils with erasers
- Blank scratch paper
  - Blank scratch paper may include: abacus, slate, stylus, Braille Math Window or Brannan Cubarithm.
- Highlighter
- Graph paper
- Calculator
  - Use of a grade-level appropriate calculator is available to all students during designated portions of the mathematics assessment.

- Students who have calculators identified as a needed accommodation in an IEP or 504 plan may use the calculator on all portions of the mathematics assessment.
  - The calculator currently available in TestNav is not accessible with screen readers. Students who use a screen reader should use calculators they use during instructional activities as long as it meets the calculator policy.
  - Refer to <https://dc.mypearsonsupport.com/documents/> for specific information on grade-level appropriate calculators.
3. What if a student requires a combination of Human Reader, braille, and large print (i.e., dual or multi-media)?

Pearson will distribute materials in the following hierarchy:

- Read Aloud Kits
- Large Print Kits
- Braille Kits

Considering the above, if a student requires both large print and braille versions of the assessment and is registered prior to the deadline for paper materials distribution, Pearson will generate a materials order for large print ONLY. Test Coordinators will need to order the additional required materials via additional orders.

4. What special issues exist regarding the use of optical or electronic magnification of the test?

Electronic magnification systems enlarge print materials in black/white or color combinations. Magnification for viewing text and graphics can be increased up to 800% with option for changing font colors, background colors, using a line marker, etc. They come in a variety of models – desktop or handheld, near or distance, stand alone or connected to a computer. Electronic magnification systems provide students with access to all printed materials, and the size of the print can be customized for the task. Students who require magnification by using an electronic magnification system can use a regular paper-based test book.

- If the electronic magnification system used by the student has the ability to capture images, these images must be deleted at the end of the test session.
- Graphics enlarged on an electronic magnification system may be problematic for some students with low vision. When an image is magnified, the student may not be able to see the whole graphic at once. If the student has difficulty with graphics, a large print test should be ordered. Large print is the regular print book enlarged to 150% which is equivalent to 18 point font size.

5. What special issues should be considered regarding students with a visual impairment, including blindness who may take the online test?

For any student taking the online test, it will be delivered using TestNav 8.

### Screen readers

A screen reader is a software application, separate from text-to-speech embedded in TestNav, which conveys web content through audio. Screen readers are appropriate for students who are experienced with using the software, including those who are blind or have a visual impairment. PARCC and Pearson have gone to great lengths to ensure that the TestNav system is accessible to all students. While the

testing experience may work with a variety of access technology, at this time it has been tested and optimized to work with **Windows 7**, the **Firefox** web browser and optimizing to **JAWS 17**. Students who take the PARCC and DC Science assessments online using a screen reader must be able to independently navigate the online testing environment. Professionals who work with students who are screen reader users are encouraged to work with students during instructional activities to ensure that they have independent computer-access skills. The skills used to navigate the PARCC and DC Science assessments are the same needed to access a variety of internet resources, including the ability to navigate by regions and headings and the ability to use keyboard shortcuts and lists, such as link lists. See a more comprehensive list of prerequisite skills in Section IV of this document.

Additionally, at this time only the English language arts/literacy (ELA/L) PARCC and DC Science assessments will be fully accessible with screen readers and braille displays. Work is underway to make the mathematics assessments accessible, but current assistive technology limitations prohibit the transadaptation of math into Nemeth code for display on refreshable braille devices. Students who rely on the use of Nemeth code for math should take the Paper Based Assessment braille version of the math assessment.

As with all students taking a PARCC and DC Science assessment, students with a visual impairment, including blindness are encouraged to use the practice tests, which include screen reader (PARCC only), large print or access to Braille Ready Files (.brf) to download a braille practice test. <https://dc.mypearsonsupport.com/practice-tests/> are currently posted on the PARCC web site.

For more information about prerequisite skills, refer to the Technology Skills Checklist below.

### **Refreshable Braille Display**

Students who use a screen reader can also access the English language arts/literacy (ELA/L) PARCC assessments using a refreshable braille display. Students who choose to take advantage of refreshable braille during the PARCC assessment should be comfortable and independent with using a refreshable braille display in instructional activities prior to using one in an assessment environment. As stated above, students and professionals are encouraged to use the Practice Tests in order to become familiar and comfortable with the PARCC Computer Based Assessments.

For more information about prerequisite skills, refer to the Technology Skills Checklist below.

### **Screen enlargement**

The online assessments come with a built-in magnifier that can be used by all students at any time during the assessment period. This magnifier is intended to enlarge small areas of the screen so that a student can get a closer look at a visual image such as a picture or graphic. The built-in magnifier cannot be increased or decreased and students will not be able to select answers or interact with the text that is magnified with the built-in tool. For students with a visual impairment that require screen enlargement for access, it is recommended that they use third-party access technology, such as ZoomText or MAGic or other third-party access technology that conforms with UAAG (User Agent Accessibility Guidelines), and supports content that is coded to comply with the Web Content Accessibility Guidelines (WCAG) and the Accessible Rich

Internet Applications (ARIA) recommendations from the World Wide Web Consortium (W3C). Again, any third-party access technology used during the assessment should be familiar to the student and used during instruction.

Students may also use screen enlargement capabilities that are built into web browsers. Note, that some graphical information may become “pixelated” at very high magnification. Students and teachers should explore the Practice Items with enlargement in order to determine the efficacy of using the browser-based enlargement in a testing environment.

For students who will use screen enlargement software with a Human Reader, refer to the *PARCC Accessibility Features and Accommodations Manual*, [Appendix B: Test Administration Protocol for the Human Reader Accommodation for English Language Arts/Literacy \(ELA/L\) Assessments](#), and the [Human Reader Accessibility Feature for Mathematics and Science Assessments](#).

For more information about prerequisite skills, refer to the Technology Skills Checklist below.

### **Color contrast**

The TestNav system provides a built-in method for changing the color contrast settings and is available to all students. Currently, the available choices are Black on Cream, Black on Light Blue, Black on Light Magenta, White on Black, Light Blue on Dark Blue or Gray on Green. Color contrast settings can also be adjusted through a screen enlargement program, such as ZoomText or MAGic.

### **Brailers and Braille Note-takers**

Students who are accustomed to using a braille, slate and stylus or a braille note-taker to produce work during instructional activities will be able to do so with the online test. In these cases, the student will produce their answers and transcribe them into TestNav or have them transcribed into the TestNav.

#### **6. Who can transcribe the tests?**

Only an Eligible Test Administrator who is a certified Teacher of Students with Visual Impairment, including Blindness or someone working under the direct supervision of an Eligible Test Administrator who is a certified Teacher of Students with Visual Impairment, including Blindness may transcribe the student’s responses into the test booklet, answer document or online form of the PARCC or DC Science assessments.

Answers written on braille paper must be transcribed onto the standard-size paper form of the PARCC or DC Science assessment or into TestNav. If responses are written on an electronic braille note-taker, they should be printed and transcribed into a standard-size paper test booklet, answer document or into TestNav. The file in the electronic braille note-taker must be deleted following successful transcription of the student’s responses. **Note:** A student response can be embossed for their reviews, after which copies must be securely shred after transcription.

**III. Testing Materials**

<b>English Language Arts/Literacy (ELA/L)</b>			
<b>Materials</b>	<b>Large Print</b>	<b>Braille</b>	<b>Online</b>
Included with the Test	<ul style="list-style-type: none"> <li>• Instructions for Large Print Administration, including Test Administrator scripts</li> <li>• Large Print Test Booklet</li> <li>• Standard Print Test Booklet or Answer Document for transcription</li> </ul>	<ul style="list-style-type: none"> <li>• Instructions for Braille Administration, including Test Administrator scripts</li> <li>• Braille test booklet or answer document with embedded tactile graphics (certain forms)</li> <li>• Picture descriptions</li> <li>• Standard Print Test Booklet or Answer Document for transcription</li> </ul>	<ul style="list-style-type: none"> <li>• Braille test booklet with embedded tactile graphics</li> </ul>
Additional Materials Needed	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Blank scratch paper</li> <li>• Highlighter</li> <li>• Other materials included in the student’s IEP or 504 plan</li> </ul>	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Other materials included in student’s IEP or 504 plan, such as braille writing devices</li> </ul>	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Other materials included in student’s IEP or 504 plan, such as braille writing devices</li> <li>• Student’s preferred access technology</li> </ul>

<b>Mathematics</b>			
<b>Materials</b>	<b>Large Print English or Large Print Spanish</b>	<b>Braille</b>	<b>Online</b>
Included with the Test	<ul style="list-style-type: none"> <li>• Instructions for Large Print Administration, including Test Administrator Scripts</li> <li>• Large Print Test Booklet</li> <li>• Standard Print Test Booklet or Answer Document for transcription</li> <li>• Large Print Mathematics Reference Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Instructions for Braille Administration, including Test Administrator Scripts</li> <li>• Braille test booklet or answer document with embedded tactile graphics</li> <li>• Standard Print Test Booklet or answer document for transcription</li> <li>• Braille Mathematics Reference Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Braille test booklet with embedded tactile graphics (when the Computer- based test becomes accessible to screen reader and refreshable braille display users)</li> </ul>

<p>Additional Materials Needed</p>	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Blank scratch paper</li> <li>• Highlighter</li> <li>• Regular classroom compass<sup>29</sup></li> <li>• Grade-level appropriate large print ruler – measures in US customary and metric</li> <li>• Grade-level appropriate large print protractor</li> <li>• Grade-level appropriate calculator – four-function, scientific or graphing</li> <li>• Other materials included in the student’s IEP or 504 plan</li> </ul>	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Braille writing devices, such as a Perkins Braille or an electronic braille note-taker</li> <li>• Grade-level appropriate braille ruler – measures in US customary and metric</li> <li>• Grade-level appropriate braille protractor</li> <li>• Grade-level appropriate tactile compass</li> <li>• Grade-level appropriate calculator – four-function, scientific or graphing</li> <li>• Braille materials that can be used as scratch paper</li> <li>• Cranmer Abacus</li> <li>• Braille Math Window</li> <li>• Brannan Cubarithm</li> </ul>	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Blank scratch paper or braille materials that can be used as scratch paper</li> <li>• Cranmer Abacus</li> <li>• Braille Math Window</li> <li>• Brannan Cubarithm</li> <li>• Grade-level appropriate tactile compass</li> <li>• Grade-level appropriate braille ruler – measures in US customary and metric</li> <li>• Grade-level appropriate braille protractor</li> <li>• Grade-level appropriate calculator – four-function, scientific or graphing</li> <li>• Other materials included in the student’s IEP or 504 plan</li> <li>• Student’s preferred access technology</li> </ul>
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<sup>29</sup> A compass is an allowable material for the grade 8 Mathematics, Geometry, assessments. The compass is not a required tool but can be made available to students if they use the tools regularly during instruction. Geometry tools are not allowed for grades 3–7, Algebra I, and Algebra II.

DC Science		
Materials	Large Print English or Large Print Spanish	Braille
Included with the Test	<ul style="list-style-type: none"> <li>• Instructions for Large Print Administration, including Test Administrator Scripts</li> <li>• Large Print Test Booklet</li> <li>• Standard Print Test Booklet or Answer Document for transcription</li> </ul>	<ul style="list-style-type: none"> <li>• Instructions for Braille Administration, including Test Administrator Scripts</li> <li>• Braille test booklet or answer document with embedded tactile graphics</li> <li>• Standard Print Test Booklet or answer document for transcription</li> </ul>
Additional Materials Needed	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Blank scratch paper</li> <li>• Highlighter</li> <li>• Four-function calculator with square root and percentage functions</li> <li>• Other materials included in the student’s IEP or 504 plan</li> </ul>	<ul style="list-style-type: none"> <li>• Test Administrator Manual</li> <li>• No. 2 pencils with erasers</li> <li>• Braille writing devices, such as a Perkins Braille or an electronic braille note-taker</li> <li>• Four-function calculator with square root and percentage functions</li> <li>• Braille materials that can be used as scratch paper</li> </ul>

**Personal Needs Profile and Ordering Braille and Large Print**

The Personal Needs and Preferences (PNP) Profile is used to gather information regarding a student’s testing condition, materials, or accessibility features and accommodations that are needed to take a PARCC or DC Science assessment. Any paper based accessibility feature or accommodation which requires materials to be shipped will need to be requested in the Student Registration File import. (e.g., Large Print, braille with Tactile Graphics, Human Reader or Human Signer for ELA/L Kits, Paper Test for Online Students, and Spanish Paper Mathematics Assessments). All students who require braille (tactile graphics are included with the braille test booklet or answer document) and large print test must ordered through the student registration file import process. All students who are taking the online assessments and use screen readers for mathematics will receive a braille book if the student is registered prior to the SR/PNP deadline. Any student PNP marked as screen reader after the SR/PNP deadline must have an additional order submitted for the braille booklet via PearsonAccess<sup>Next</sup>.

**IV. Technology Skills Checklist**

Accessibility of testing materials for all students is an important part of the PARCC assessments. For a student with visual impairment, including blindness to take the online test, he or she will need to have a minimum level of skills with computer technology and the assistive technology he or she uses to access instructional materials. The following is a list of skills a student should be using regularly during instructional activities and be proficient with on the day of testing in order to independently access the PARCC assessment online. Students should, at a minimum, be able to complete these tasks independently and should be given multiple opportunities to practice using the PARCC Practice Tests available here: <https://dc.mypearsonsupport.com/practice-tests/> and the PARCC Sample Items here: <https://dc.mypearsonsupport.com/sample-items/>.

### **Screen Reader**

- Use arrow keys to navigate
- Navigate by headings
- Access and use the Headings List
- Access and use the Links List
- Activate Links using keyboard commands
- Activate Buttons
- Adjust voice settings
- Select text using keyboard commands
- Copy text to clipboard
- Paste text from clipboard
- Access edit fields
- Use check boxes
- Use radio buttons
- Enter and exit forms mode
- Navigate, locate and read text on a webpage
- Navigate and understand a table

### **Refreshable Braille Display**

- Complete all of the functions listed under Screen Reader
- Use corresponding commands to run a screen reader with a supported refreshable braille display

### **Screen Magnification**

- Adjust color and contrast settings
- Adjust magnification settings
- Use text-to-speech when needed
- Use find features to efficiently find information