All screenshots, data dictionaries, and templates shown or referred to in this manual are accurate on the publication date noted above.

When this manual is updated, the publication date will also be updated. A summary of changes is included in the Appendix under Document History.

A special thanks to our state partners who provided helpful feedback and to Pat Almond for her assistance with conceptualizing accessibility for the Dynamic Learning Maps Alternate Assessment System. We are grateful for everyone’s time and efforts to improve this document.
FINDING HELP
When the information in this manual and resources from your state Dynamic Learning Maps® webpage do not lead to solutions, these contacts can provide additional support.

HINT: Print this page and keep it handy!

<table>
<thead>
<tr>
<th>For these topics:</th>
<th>Contact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Kite® Student Portal installation</td>
<td>District Technology Coordinator</td>
</tr>
<tr>
<td>• General computer support</td>
<td></td>
</tr>
<tr>
<td>• Internet availability</td>
<td></td>
</tr>
<tr>
<td>• Display resolution</td>
<td></td>
</tr>
<tr>
<td>• Issues with sound, headphones, speakers, etc.</td>
<td></td>
</tr>
<tr>
<td>• How to use Student Portal and Educator Portal</td>
<td>District Testing Coordinator and/or District Special Education Director</td>
</tr>
<tr>
<td>• Training requirements</td>
<td></td>
</tr>
<tr>
<td>• Assessment questions</td>
<td></td>
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<tr>
<td>• Assessment scheduling</td>
<td></td>
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<tr>
<td>• Student IEP requirements</td>
<td></td>
</tr>
<tr>
<td>• Test resets (may take up to 72 hours)</td>
<td></td>
</tr>
<tr>
<td>• Test window dates, extensions, requirements, etc.</td>
<td>State Assessment Office: Heather Heineke 401-222-8493</td>
</tr>
<tr>
<td>• Test invalidation requirements</td>
<td></td>
</tr>
<tr>
<td>• Data issues (rosters, enrollment, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

When contacting the DLM Service Desk:

- **Do not send any Personally Identifiable Information** (PII) for a student via email. This is a federal violation of the Family Education Rights and Privacy Act (FERPA). PII includes information such as a student’s name or state identification number. Each state has unique PII requirements. Please check with your assessment coordinator to find out what student information can be legally emailed in your state.
- **Do** send:
  - your contact information (email address and name)
  - your school name (include the district if contacting state-level personnel)
  - error messages, including the testlet number if applicable to the problem
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OVERVIEW

AUDIENCE AND PURPOSE

The ACCESSIBILITY MANUAL for the Dynamic Learning Maps® (DLM®) alternate assessment provides guidance to state leaders, district staff, test administrators, and Individualized Education Program (IEP) teams in the selection and use of the accessibility supports available in the DLM system.

ADDITIONAL RESOURCES

Additional procedural information on manipulatives, braille testlets, language translation, and sign language is provided in the TEST ADMINISTRATION MANUAL and the EDUCATOR PORTAL USER GUIDE, which are available on the RIDE website at www.ride.ri.gov.

For step-by-step instructions on using Educator Portal (EP) to select the supports appropriate for each student and completing the Personal Needs and Preferences Profile, see the EDUCATOR PORTAL USER GUIDE.

ABOUT THE DYNAMIC LEARNING MAPS ALTERNATE ASSESSMENT SYSTEM

The DLM Alternate Assessment System assesses what students with the most significant cognitive disabilities know and can do in the DLM-assessed subject areas in grades 3–8 and high school. The DLM system provides accessibility by design and is guided by the core beliefs that all students are to have access to challenging, grade-level content and that test administrators must adhere to the highest levels of integrity in providing instruction and administering assessments based on this challenging content.

The DLM Alternate Assessment System includes computer-based assessments and an administrative application to manage student information. The assessments can be administered on a variety of devices.

Understanding how the DLM alternate assessment is designed for accessibility and how accessibility supports can be customized helps test administrators determine which supports are needed for each student.
ACCESSIBILITY BY DESIGN

ACCESSIBLE CONTENT

Accessible content is essential to student success. The Dynamic Learning Maps® (DLM®) Alternate Assessment Consortium has created accessible content by developing testlets at various complexity levels, creating item-writing guidelines based on universal design, and using an appropriate vocabulary level. Universal Design for Learning (UDL) is a scientifically valid framework for guiding education practice that (a) provides flexibility in the ways students respond, demonstrate knowledge and skills, and engage with the content and (b) reduces barriers in instruction, provides appropriate challenges, supports, and maintains high achievement expectations for all students, including students with the most significant cognitive disabilities and students who have limited English proficiency (Higher Education Opportunity Act, 2008). UDL is a framework that is critical to understanding how students with the most significant cognitive disabilities can achieve success within content standards.

DLM technology enriches the interaction between the student and the content by using a special user interface called Kite® Suite. Students are administered grade-level assessments with an appropriate balance of academic challenge and accessibility to the content. The First Contact (FC) survey collects background information about students who are eligible for the DLM alternate assessment. The survey goes beyond basic demographic information and includes questions on topics such as communication, assistive technology devices, motor and sensory impairments, and academic performance. The test administrator enters information in the survey about each of these for each student in Educator Portal. Some questions from the FC survey are used to determine a student’s entry point, or initialization, into the assessment. This is the student’s first testlet.

Items in the DLM alternate assessment are grouped into testlets. A testlet contains three to nine items, or questions, aligned to one or more Essential Element (EE). EEs are specific statements of knowledge and skills that are linked to each state’s content standards. Testlets allow flexibility in the content complexity level based on the content needs of each student. Items in the DLM alternate assessment are built to show the relationships between the knowledge and skills necessary to reach the EEs. Information gathered in the FC survey and ongoing student performance determine which linkage level(s) of complexity are most accessible and appropriate for each student.

ACCESSIBLE CONTENT FOR ELA AND MATHEMATICS

Both ELA and mathematics have a fully developed learning map model. Those maps contain thousands of nodes that are representations of an individual skill or conceptual understanding identified in the research in ELA and mathematics. For each ELA and mathematics EE, the DLM alternate assessment provides testlets at several different
levels of complexity called linkage levels. ELA and mathematics have five linkage levels per EE. Linkage levels are a small section of the DLM map containing one or more nodes that represent critical concepts or skills needed to learn the EE. Target-level testlets are developed based on these nodes. Then, multiple pathways on the map are carefully inspected to identify nodes that link to the Target linkage level, both preceding and extending beyond it. Linkage levels identify significant milestones en route to the knowledge and skills described by the EE, indicating a student’s performance in relationship to the grade-level target.

The least complex linkage level is called Initial Precursor. Testlets developed at the Initial Precursor linkage level often reflect foundational nodes in the DLM map, which are skills and understandings necessary for learning subsequent academic content (e.g., “focus attention”). Testlets at this level are typically intended for students who do not yet have symbolic communication. Initial Precursor testlets are administered by the test administrator, who observes the student’s behavior as directed by the instructions within the testlet and then records the student’s responses in Student Portal.

Two additional linkage levels are between the Initial Precursor and the Target linkage levels: Distal Precursor and Proximal Precursor. These linkage levels reflect nodes along the multiple pathways in the DLM map that extend from the Target linkage level to the Initial Precursor linkage level, as demonstrated in Figure 1.

![Diagram](image)

**Figure 1.** Linkage levels determine testlet development contents.

*Note: IP = Initial Precursor; DP = Distal Precursor; PP = Proximal Precursor; T = Target; S = Successor*
Finally, testlets at the Successor linkage level give students the opportunity to take the next step beyond the expectations described by the EE.

**ACCESSIBLE CONTENT FOR SCIENCE**

The science EEs are the learning targets for students with significant cognitive disabilities. Unlike for ELA and mathematics, the learning map model for science is not fully developed. Therefore, some differences occur between science and ELA and mathematics. The science standards are described in grade-band performance expectations by the end of each grade band:

- Grade 5 for the 3-5 elementary grade band
- Grade 8 for the 6-8 middle school grade band
- Grade 11 for the 9-11 high school grade band

Each science EE has three linkage levels that indicate a student’s performance in relationship to that grade-level target.

The Target linkage level is the highest linkage level in science. Testlets at the Target linkage level are written at the level of the EE. Science does not have a Successor linkage level at this time.

The other two linkage levels are lower in complexity, depth, and breadth than the Target linkage level. The Initial linkage level is the least complex level, and testlets developed at the Initial linkage level often reflect foundational aspects of each state’s content standards. These aspects include skills and understandings necessary for learning subsequent academic content (e.g., “focus attention”). Testlets at the Initial linkage level are typically intended for students who do not yet have symbolic communication. They are administered by the test administrator who observes the student’s behavior, as directed by the instructions within the testlet, and then records the student’s responses in Student Portal.

The Precursor linkage level is between the Initial linkage level and the Target linkage level. The Precursor linkage level identifies significant milestones en route to the knowledge and skills described by the EE, indicating a student’s performance relative to the grade-level target.

Information gathered in the FC survey and ongoing student performance determine which linkage level(s) are most accessible and appropriate for each student.

See your state’s webpage to determine if your state tests in DLM science.

**ACCESSIBLE DELIVERY**

Testlets are delivered differently in subject areas, based on research of effective instructional practices for students with the most significant cognitive disabilities. Each testlet begins with an engagement activity. Engagement activities are designed to motivate students, provide a context, and activate prior knowledge.
ELA ENGAGEMENT ACTIVITIES

Within ELA, reading testlets are designed around texts that are adapted from grade-level themes. The texts’ content provides an appropriate level of challenge but is reduced in depth, breadth, and complexity compared to grade-level texts. The DLM texts are written to support assessment of the specific knowledge and skills described in the nodes.

During a reading testlet, students participate in two readings of a text. The first reading is a shared reading activity that familiarizes students with the entire text and serves as an engagement activity. The second reading includes appropriately embedded items within the text as well as items placed at the end of the text when necessary. Embedded items reduce cognitive load and reliance on long-term memory.

During writing assessments, the test administrator follows a standardized procedure in which the student selects and writes about a topic. A series of screens in Student Portal leads the student and test administrator through various stages of the writing process. Two types of writing testlets are available: emergent and conventional writing. In both types of writing testlets, students work outside of Student Portal, using orthography-based materials that they use for writing in everyday instruction. Students may use standard pens, pencils, keyboards, or other materials that offer access to all 26 letters of the alphabet. The test administrator observes the student’s writing and responds to items about their writing in the testlet in Student Portal. See the TEST ADMINISTRATION MANUAL for full descriptions.

MATHEMATICS ENGAGEMENT ACTIVITIES

Mathematics testlets start with an engagement activity designed to activate prior knowledge, prepare students for the cognitive process required in the items, and/or provide a context for the items. The engagement activity does not include any items or require a response. Mathematics testlets are built around a common scenario to investigate related facets of student understanding of the targeted content.

SCIENCE ENGAGEMENT ACTIVITIES

Science testlets may be designed around a science story featuring an experiment or classroom activity that is presented twice, with items embedded within the second presentation of the activity and/or at the end of the second presentation. Shorter science stories simply provide a context for the items. In testlets with a shorter science story, the science story is presented once, and all items appear at the conclusion of the activity. Science testlets at thePrecursor linkage level may also be designed around a short video (up to 30 seconds), with items presented after the video has been viewed.

TESTLET ITEM DESIGN

Testlets are delivered and responses are collected in two general ways. Most testlets are designed for direct student interaction via computer. This format is based on the FC
survey information, which reveals that a student can interact with the computer independently. The student is allowed to use special devices such as alternate keyboards, touch screens, or switches. In some instances, the student may need support from the test administrator to interact with the computer. For example, a technology-enhanced item may require a physical manipulation that is difficult for the student to manage. While most items are in a multiple-choice format, some testlets at upper linkage levels use technology-enhanced items on a limited basis. These items require certain types of skills, such as sorting or matching. Screenshots of item types in computer-delivered testlets are shown in Figure 2, Figure 3, Figure 4, and Figure 5.

**ITEM TYPES**

*Figure 2. A screenshot of images as response options in a single-select multiple-choice item. The student is to select the image the text describes.*
Figure 3. A screenshot of symbols and descriptive words in a matching item where two lists are shown. The student is to match a symbol from the list on the left to the descriptive words in the list on the right.

Figure 4. A screenshot of images in a sorting item where the student is to sort images into categories. The student selects an image and drags it into the appropriate box.
Figure 5. A screenshot of a sentence where the student is to respond to the item by selecting the appropriate word from the three outlined words presented in the passage. After the student makes a selection, the outline around the word, phrase, or sentence becomes bold and is highlighted in transparent yellow, as shown in the example above.

Some testlets are designed so test administrators can administer them outside of Student Portal with step-by-step guidance provided in the testlet (see Figure 6). For these testlets, the test administrator, rather than the student, records student responses in the testlet in Student Portal.

Figure 6. Educator directions in a teacher-administered testlet.

CUSTOMIZATION FOR EACH STUDENT

The Personal Needs and Preferences (PNP) Profile and the First Contact survey are collections of information about a student entered in Educator Portal by the student’s test administrator. Once the test administrator submits the information, the system analyzes the data, using a complex algorithm to determine the best level of complexity, or linkage level, for the student’s first testlet. The system uses the PNP Profile settings chosen by the test administrator to customize each student’s assessment experience. The
test administrator determines which accessibility supports to include (e.g., magnification), and which assessment form to deliver in Student Portal (e.g., braille).

NOTE: Step-by-step instructions for completing the PNP can be found in the EDUCATOR PORTAL USER GUIDE on page 27, Complete the PNP Profile.

CHANGING PNP PROFILE SETTINGS DURING TESTING

Since the PNP Profile settings in Educator Portal activate the appropriate system accessibility supports, test administrators must complete the PNP Profile before the assessment begins. When necessary, the test administrator can adjust the PNP Profile settings as a student’s needs change, even during an assessment window or in the middle of a testlet. Be aware that changes made to certain categories of accessibility features in the PNP, during testing, may require 24-48 hours for the system to provide a new testlet. Make sure that your first responses to the PNP are as accurate as possible so testing is not interrupted.

See Table 1 on page 19 for a complete list of all Category 1, 2, and 3 supports.

Category 1
Category 1 supports include display enhancements and Spoken Audio.

**Timeframe: Category 1 settings change immediately with the next testlet.**

For changing a Category 1 setting during testing, follow this process:
1. The testlet is completed up to the point of it being submitted, but testing is paused **before** the testlet is submitted. (A testlet in Student Portal does not have a pause button. The test administrator will simply stop testing for up to 90 minutes without losing the current testlet or student’s responses.)
2. The test administrator logs into Educator Portal, selects the PNP Profile, and selects or deselects the desired Category 1 support settings.
3. The test administrator must save the new selection(s) in the PNP Profile.
4. The test administrator returns to the paused testlet and submits it.
5. All currently assigned and future testlets for all subjects will have the newly selected or deselected Category 1 setting.

Category 2
Category 2 supports include braille, Alternate Form–Visual Impairment, and single- and two-switch scanning, and may require additional supports and materials.

**Timeframe: Category 2 settings change overnight.**

If test administrators must change a Category 2 support during testing, they must follow this process:
1. The testlet is completed up to the point of it being submitted, but testing is paused **before** the testlet is submitted. (A testlet in Student Portal does not have a pause
button. The test administrator will simply stop testing for up to 90 minutes without losing the current testlet or student’s responses.)

2. The test administrator logs into Educator Portal, selects the PNP Profile, and selects or deselects the desired Category 2 support settings.

3. The test administrator must save the new selection(s) in the PNP Profile.

4. The test administrator returns to the paused testlet and submits it.

5. The next day, testlets in all subjects, both those that were currently assigned and future testlets will have the newly selected or deselected Category 2 settings, with some exceptions. See the note below.

6. The next day, the test administrator begins administering the next testlets.

HINT: Braille testlets and Alternate Form – Visual Impairment testlets are not available for every EE at every linkage level. Standard forms of the testlets are always available for every EE at every linkage level. Therefore, if either a braille or an Alternate Form – Visual Impairment form was selected in the PNP Profile settings, but if neither are available for the particular EE or linkage level that is being tested, the testlet delivered will be a standard form.

In the normal assessment environment (i.e., when no changes in the PNP Profile settings have been made), the system delivers the next testlet in about 15 minutes.

**Category 3**

Category 3 supports are all outside of the system and do not affect the testlets directly. Therefore, Category 3 supports can be changed at any time with no special process, no testing delay, and no physical change to a testlet.

**Checking the PNP for Selected Accessibility Features**

**NOTE:** Step-by-step instructions for completing the PNP can be found in the EDUCATOR PORTAL USER GUIDE, page 27, Complete the PNP Profile.

The supports in the PNP Profile are listed under five tabs: Summary, Display Enhancements, Language & Braille, Audio & Environment Support, and Other Supports. Settings in the PNP Profile that are not relevant to the DLM alternate assessment are deactivated and grayed out in the system, and they cannot be selected. After the available
and appropriate supports are selected and saved, the test administrator may check the Summary tab to see the current profile settings (see Figure 7).

**NOTE:** The list of supports available in the Other Supports tab can be found in Appendix A: Other Supports (page 48) of this manual.

![Figure 7. Screenshot of accessibility Summary tab. Data are for a fictional student.](image)

**Complete the First Contact Survey**

**NOTE:** Step-by-Step instructions for completing the First Contact Survey can be found in the EDUCATOR PORTAL USER GUIDE, page 41, *Complete the First Contact Survey.*

The test administrator completes the FC survey prior to assessment administration. The Kite system uses the data to determine the student’s initial placement into the assessment, in other words, the best linkage level to deliver the first testlet when the assessment window opens. Instructions for how to complete the FC survey are in the EDUCATOR PORTAL USER GUIDE. A testlet cannot be delivered to a student until the FC survey has been completed and submitted. If not completed before the assessment window opens, the first testlet will not arrive for 24 hours.
SIX STEPS TO CUSTOMIZE DYNAMIC LEARNING MAPS ACCESSIBILITY SUPPORTS FOR STUDENTS

This section presents a six-step process for IEP teams, general and special education educators, test administrators, and district-level assessment staff to use in the selection, administration, and evaluation of the accessibility supports used in Student Portal by students with the most significant cognitive disabilities.

- Step 1: Include Eligible Students in the DLM Alternate Assessment
- Step 2: Learn About the Accessibility Supports and What the DLM Alternate Assessment Provides
- Step 3: Discuss and Select Appropriate Supports: Considerations for IEP Teams
- Step 4: Select and View Supports in the Educator Portal
- Step 5: Prepare for the Assessment: Using the Chosen Accessibility Supports
- Step 6: Evaluate the Accessibility Supports Used at the end of the Assessment window, after all testlets have been administered.

Steps 1 through 3 are intended to assist IEP teams in determining the appropriate accessibility supports for eligible students, and Steps 4 through 6 are a guide for educators and test administrators to choosing, using, and evaluating the selected supports. These six steps are explained in detail in the following sections.
STEP 1: INCLUDE ELIGIBLE STUDENTS IN THE DLM ALTERNATE ASSESSMENT

**Participation in a State Assessment**

With legislation’s focus on accountability and inclusion of all students comes the drive to ensure equal access to grade-level content standards. Students with the most significant cognitive disabilities are included in state and district accountability systems in order to receive the benefits gained from participation, such as improved instruction, higher expectations, and involvement in educational reforms (Thurlow, Ysseldyke, & Elliott, 2002). Several important laws require that students with the most significant cognitive disabilities to participate in standards-based instruction and assessment initiatives. These include federal laws such as No Child Left Behind of 2001, the Individuals with Disabilities Education Improvement Act of 2004 (IDEA), and the Every Student Succeeds Act, which went into effect in 2017.

**Participation Guidelines**

Students taking the alternate assessments should have already been through the eligibility process to ensure that the student meets the following three criteria. These criteria are specific to Rhode Island students. More information on the criteria and the eligibility process, please see *IEP Team Guidance on Eligibility for Alternate Assessments (2018-19)* at www.ride.ri.gov/riaa

STEP 2: LEARN ABOUT THE ACCESSIBILITY SUPPORTS

**What Does the DLM Alternate Assessment Provide?**

This section identifies the accessibility supports available for students taking the DLM alternate assessment and distinguishes among accessibility supports that (a) can be utilized by selecting online supports via the PNP Profile, (b) require additional supports materials, and (c) are provided by the test administrator outside the system. Table 1 shows which supports fall under each of these categories. Each support is described in the following section.

- Decisions about which supports to include in the DLM alternate assessment were made using results from more than 50,000 FC survey responses, feedback from national sensory impairment experts who also have expertise in this population of students, and lessons learned from test administration observation studies.

Prior to administering the DLM alternate assessment, test administrators provide information about the accessibility needs of each assessed student. The Kite system stores this information and uses some of it to activate certain supports.
Table 1: Accessibility Supports of the DLM Assessment System

<table>
<thead>
<tr>
<th>Category 1: Settings in the PNP Profile that activate supports within Student Portal</th>
<th>Category 2: Settings in the PNP Profile that require supports or materials in addition to those within Student Portal</th>
<th>Category 3: Settings in the PNP Profile that require supports provided by the test administrator outside of Student Portal</th>
</tr>
</thead>
</table>
| - Magnification  
- Overlay color  
- Invert color choice  
- Contrast color  
- Spoken Audio | - Uncontracted braille EBAE  
- Uncontracted braille UEB  
- Alternate Form–Visual Impairment  
- Single-switch system (PNP Profile enabled)  
- Two-switch system  
- Individualized manipulatives  
- Calculator | - Human read aloud  
- Sign Interpretation of Text  
- Language translation of text  
- Test administrator entering of student responses  
- Partner-assisted scanning (PAS) |

**SUPPORT CATEGORIES**

**Released Testlets:** Test administrators are advised to try out the supports in advance to make sure they are compatible and provide the best access for students. See the *Guide to Practice Activities and Released Testlets* on the RIDE website ([www.ride.ri.gov/riaa](http://www.ride.ri.gov/riaa)) and click on the Released Testlets tab for more information.

Released testlets are similar to real testlets. They are selected from a variety of Essential Elements and linkage levels across grades three through eight and high school. New released testlets are added periodically.

**Category 1 settings in the PNP Profile activate supports within Student Portal**

Online supports include magnification, overlay color, invert color choice, contrast color, and Spoken Audio. Directions detailing how to select the PNP Profile supports are found in Step 4: Select and View Supports in the Kite System.

- **Magnification:** Allows test administrators to choose the degree of screen magnification during assessment. Test administrators can choose between a magnification of 2x, 3x, 4x, or 5x. Without magnification, the font is Report School, 22 point. Scrolling may be required when the level of magnification is increased because the entire item will no longer be visible on the screen. Scrolling will vary according to the level of magnification, the amount of content in the item, and the size of the screen.

- **Overlay color:** The background color of the assessment. The default color is white. Test administrators may select from the alternate colors of blue, green, pink, gray,
and yellow. Practice demo testlets have specific presets, but more options are provided in the PNP Profile and actual live testlets.

- **Invert color choice:** Makes the background color black and the font white. Images display with a white background.
- **Contrast color:** Allows test administrators to choose from color schemes for the background and font.
- **Spoken Audio:** Synthetic Spoken Audio (read aloud with highlighting) is read from left to right and top to bottom. Three preferences are available for Spoken Audio: text only, text and graphics, and nonvisual (this preference also describes page layout for students who are blind or have visual impairments).

Screenshots showing these supports begin in the *Demonstration of Personal Needs and Preferences Supports: What Students Will See* section on page 36 of this manual.

**Category 2 settings in the PNP Profile require additional supports or materials**

These supports include braille, switch system preferences, and the use of special supports and materials and typically require prior planning and setup. The test administrator selects these supports in the PNP Profile.

- **Braille:** The DLM Alternate Assessment System supplies braille forms for some testlets. These forms are available in either uncontracted Unified English Braille (UEB) or English Braille American Edition (EBAE), depending on what the test administrator selects in the student’s PNP Profile. DLM braille forms also include Nemeth code for mathematics, as needed.

The DLM alternate assessment is designed to assess a student’s knowledge, skills, and understandings of the EEs, **not** the student’s ability to use braille. Braille testlets are for students who read braille proficiently. When braille is appropriate for a student, the DLM Consortium recommends choosing both braille and Alternate Form—Visual Impairment supports in the student’s PNP Profile. Braille is not to be selected for emerging braille readers. Other options described below, such as alternate forms, are also suitable for a student with a visual impairment who does not read braille.

See Table 2 below for information about the availability of braille forms for each subject, grade, and linkage level during the spring assessment window.
Table 2

Availability of Uncontracted Braille Forms during the Spring Assessment Window by Subject, Grade Level, and Linkage Level

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grades</th>
<th>Linkage Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA and mathematics</td>
<td>3–5</td>
<td>Target and Successor</td>
</tr>
<tr>
<td>ELA and mathematics</td>
<td>6–8 and HS</td>
<td>Proximal Precursor, Target, and Successor</td>
</tr>
<tr>
<td>Science</td>
<td>3–8 and HS</td>
<td>Target</td>
</tr>
</tbody>
</table>

- **Alternate Form — Visual Impairment:** For a student who is blind and does not read braille or who has a significant visual impairment, the test administrator selects *Alternate Form — Visual Impairment* under the Other Supports tab in the PNP Profile. The alternate form of the testlet, if available, will have the letters BVI (Blind Visual Impairment) in the testlet name, in the test ticket, and in Student Portal (e.g., SP BVI SCI MS.PS1-2 P 10455). If a BVI form is not available for the testlet, the system will deliver a standard form to the student. The accompanying Testlet Information Page (TIP) for that testlet will provide information about how to make appropriate adaptations for the student.

- **Single-switch system:** This support is activated using one switch and a switch interface that emulates the Enter key on the keyboard. In the PNP Profile, test administrators can set scan speed, indicate if scanning is to begin automatically when the page appears, and select the number of times the scan cycle repeats before stopping.

- **Two-switch system:** This system does not require activation in the PNP Profile. Two switches and a switch interface are used to emulate the Tab key to move between choices and the Enter key to select the choice when highlighted.

- **Individualized manipulatives:** Students may use familiar manipulatives (e.g., abacus, unit cubes, interlocking blocks, counters, linking letters). Refer to the TIP for more information.

- **Calculator:** Students may use a calculator on mathematics testlets unless it interferes with the construct of the testlet. The TIP for each mathematics testlet will specify whether a calculator is permitted.

**Category 3 settings in PNP Profile all require supports provided by the test administrator outside of Kite Student Portal**

Supports offered outside of Student Portal require actions by the test administrator, such as reading, signing, translating the assessment, or helping the student enter responses. These supports are recorded in the PNP Profile even though they are delivered by the test administrator outside of Student Portal.
• **Human read aloud:** Test administrators may read the assessment aloud to students. Alternate text for test administrator who will deliver the human read aloud will include descriptions of graphics and alternate text descriptions of images are provided as additional pages after the main TIP. The TEST ADMINISTRATION MANUAL also includes information about human read aloud.

• **Sign interpretation of text:** Test administrators may sign the content to students using American Sign Language (ASL), Signing Exact English, or personalized sign systems.

• **Language translation of text:** Test administrators may translate the text for students who are English learners or who communicate best in a language other than English. Language translations are not provided via the computer. State policy will guide whether translation can be used.

• **Test administrator entering student responses:** If students are unable to physically input their response options, they may indicate their responses through their typical response mode and/or forms of communication (e.g., eye gaze, gesture). Test administrators may key in those responses only when students are unable to independently and accurately record their responses in Student Portal.

• **Partner-assisted scanning (PAS):** PAS is a strategy in which test administrators assist students with scanning students’ response options. Test administrators read and/or point to each response option, and students indicate when presented their desired response.

**SYSTEM TIMEOUT**

The DLM alternate assessments are administered individually and are not timed. Students may take as much time as needed and work in settings that are most appropriate for them. In other words, any flexibility in location and assessment time that the student needs is permissible. For example, the student may take as many breaks as needed throughout the completion of a testlet. During the administration of a testlet, Student Portal can sit inactive for as long as 90 minutes before timing out.

At 88 minutes and 30 seconds of inactivity in the testlet, the system prompts the student with this warning message.

![System Timeout](image)

`Your session is about to expire.
Select Extend Session to continue where you left off.
Time Remaining: 01 mins and 28 seconds

EXTEND SESSION  LOGOUT`
• If the student does nothing. In other words, if no activity occurs before the countdown reaches 0, the system logs the student out of the testlet and returns to the login screen. The testlet status returns to **Unused**, and the system retains no responses.

• If the student selects **Extend Session**, the system disregards the idle time, closes the prompt, and returns to the screen where the student was working.

• If the student selects **Logout**, the system logs the student out of the testlet and returns to the login screen. The testlet status returns to **Unused**, and the system retains no responses.

Students with the most significant cognitive disability who qualify for the DLM alternate assessments require extensive, repeated, and individualized instruction and ongoing supports that are not temporary or transient in nature, and they have difficulty retaining information in working memory for extended periods of time. Therefore, testlets were created to be short with only a few items, with each testlet beginning with an engagement activity designed to activate prior knowledge, motivate the students, and provide a context. While DLM test administration procedures are designed to be flexible and allow students to take breaks during a testlet, most students who experience an extended interruption during test administration have difficulty retaining information in working memory after that extended interruption. Research has shown that extended interruptions during test administration can have adverse effects on student performance (Sinharay, et al., 2014). Because of this, Student Portal was designed to timeout after an extended period of inactivity without retaining the responses, allowing the student to begin the assessment afresh when ready.

**Supports Not Available in Student Portal**

Some supports that might be expected but that are not available in the system include the following:

• **Sign language using human or avatar videos onscreen:** The majority of eligible students who communicate with sign language use Signed Exact English or personalized sign systems.

• **Tactile graphics:** Objects, tactile graphics, or tactile representations of pictures or objects presented onscreen as a concrete representation may be used. Educators may use individualized tactile representations with their students, as appropriate.
STEP 3: DISCUSS AND SELECT APPROPRIATE ACCESSIBILITY SUPPORTS—CONSIDERATIONS FOR IEP TEAMS

Student Portal allows many computer-based accessibility supports for a student to use during the assessment, such as various font colors or magnification sizes. In a student’s PNP Profile, the test administrator may choose from a number of Student Portal supports available for a DLM testlet. The test administrator is to include supports that are required to meet the student’s needs and should be included in the student’s IEP.

PNP Profile settings must be set prior to test administration. However, if those initial settings do not allow the student to fully access the content of the testlets, the PNP Profile settings may be adjusted between testlets to provide more-appropriate access for the student. See Changing PNP Profile Settings During Testing as described on page 14 of this manual.

WHO DECIDES WHAT ACCESSIBILITY SUPPORTS ARE NEEDED?

The IEP team determines an individual student’s needs, and test administrators then select the accessibility supports based on those needs rather than the disability category, grade level, or instructional setting.

Students with the most significant cognitive disabilities who are also English learners need decisions about their language-related supports to be made by educators who understand them best. This person is typically the test administrator. Once the supports are selected, these students are best served when the accessibility supports are used consistently for both instruction and assessment.

Students can gain experience with the specific Student Portal supports by using DLM practice activities and released testlets. These activities are intended for three main purposes:

1. To help a test administrator draw conclusions about a student’s ability to use a selected PNP Profile support during assessments
2. To make decisions about which PNP Profile support(s) best fit a student’s individual needs and preferences and then include them in the IEP, if they aren’t included already.
3. To provide students with opportunities to practice using the navigation tools in the testlets prior to the day of the student’s first assessment

Released testlets will be available for every grade level to allow a student to practice using any of the PNP Profile supports as often as needed and to allow test administrators to observe a student’s interaction with those supports. Test administrators can change the selections in the PNP Profile, depending on the conclusions drawn about a student’s experience with the testlets. Additionally, repeated practice can increase both students’ and test administrators’ ease on the day the assessment window opens.
**Guiding Questions for Discussion and Selection of Appropriate Accessibility Supports**

Some questions that teams may ask in the process of determining appropriate supports include the following:

- What are the student’s learning strengths, and in which areas does the student need improvement?
- How are a student’s knowledge and understanding of the EEs impacted by the student’s learning needs?
- Which instructional and assessment tasks are difficult for the student to do independently when working one-on-one in the classroom and/or when interacting in an online environment?
- Which current supports help the student with these difficulties, when working one-on-one in the classroom and/or when interacting in an online environment? What kinds of instructional strategies (e.g., visual, tactile, auditory, combination) work best for the student?
- Which accessibility supports match these strategies and may help the student access the assessment?
- Which supports or materials does the student prefer?
- What were the results of routine assignments and classroom testing when accessibility supports were used or not used?
- Did the student have any difficulties interacting with these supports in the past? If so, what were the difficulties and how can they be resolved?
- Which accessibility supports will increase the student’s access to the assessment by addressing their learning needs and reducing the effect of their disability?
- Which effective combinations of accessibility supports will help the student? (Thompson, Morse, Sharpe, & Hall, 2005)

Test administrators may need to amend a student’s IEP to include any additional, appropriate supports available in the PNP Profile that were not listed on the IEP, depending on state policy.

The user interface in Student Portal has been specially designed for students with the most significant cognitive disabilities. However, students may need various levels of support during the assessment to be able to interact with the computer. Testlets delivered directly to students via computer are designed under the assumption that students can interact with the computer independently.

**Common Accessibility Issues and Example Solutions**

When customizing the assessment process, using accessibility supports and allowable practices, keep in mind two general principles: (a) the student is expected to respond independently, and (b) supports are to be familiar to the student because they have been used during routine instruction.
Table 3 describes some common accessibility issues and potential solutions that are based on a combination of accessibility supports and allowable practices. The table includes suggestions for computer-delivered and teacher-administered testlets. Further guidance on allowable practices is provided in the **TEST ADMINISTRATION MANUAL**.

Table 3: *Common Accessibility Issues and Example Solutions*

<table>
<thead>
<tr>
<th>Accessibility issue</th>
<th>Example solutions</th>
</tr>
</thead>
</table>
| The student has difficulty interacting directly with the computer due to limited experience, motor skills, and/or devices. | • Navigation in Student Portal  
  ○ The test administrator may navigate the screens for the student.  
  ○ After the student indicates their responses to the test administrator, the test administrator enters the responses on behalf of the student. See additional example solutions below for students indicating their response options. |
<table>
<thead>
<tr>
<th>Accessibility issue</th>
<th>Example solutions</th>
</tr>
</thead>
</table>
| The student is blind and typically reads braille. | • Braille forms: For students who read braille proficiently enough to demonstrate what they know and understand about the EEs, braille forms of the assessments are available. However, braille forms are available only at upper linkage levels and only for some EEs. See instructions for how to access and prepare for administering testlets in braille in the EDUCATOR PORTAL USER GUIDE, page 56.  
• Alternate Form—Visual Impairment form: When a braille form is not available, an Alternate Form—Visual Impairment form may be available. These forms are also only available for some EEs at upper linkage levels.  
• Human Read Aloud: The test administrator may always read the testlet aloud to the student.  
• Familiar materials and tactile graphics: The test administrator may use familiar materials or create tactile graphics in place of images that appear on screen for a student. Familiar materials may be substituted for unfamiliar materials as long the criteria of the item being tested continues to be met.  
• SHOW: When the educator directions in a testlet use words like SHOW, the test administrator presents the content of the testlet to the student using methods normally used during every day instruction. |
<table>
<thead>
<tr>
<th>Accessibility issue</th>
<th>Example solutions</th>
</tr>
</thead>
</table>
| The student has a severe visual impairment and needs a larger presentation of content than the 5x magnification setting provides. | • Magnification: The test administrator may use an interactive whiteboard, projector, or any magnification device that works with the computer screen.  
  • Familiar Texts: The TIP will provide information to the test administrator about familiar texts being referenced in the testlet. ELA familiar texts may be retrieved from the DLM bookshelf in the Tar Heel Reader library and printed in the font size and contrast the student needs. Also, the test administrator may read aloud the text to the student. |
| The student is blind and does not communicate verbally.                             | • Human Read Aloud: The test administrator may use human read aloud to read the testlet aloud to the student.  
  • Familiar materials and tactile graphics: Objects, tactile graphics, or tactile representations of pictures or objects presented onscreen as a concrete representation may be used. Test administrators may use individualized tactile representations with their students, as appropriate. See the TIPs for more information.  
  • See Alternate Text for Reading Testlets and Retrieve the Testlet Information Pages and Gather Materials in the TEST ADMINISTRATION MANUAL for the human read-aloud guidelines. |
<p>| The student uses sign language to communicate and has limited proficiency in reading text. | • Sign language: The test administrator may sign the text, spelling unfamiliar words and adapting or interpreting the language as needed. The test administrator may use signs that are familiar to the student.                                                                                                                                                                                                 |</p>
<table>
<thead>
<tr>
<th>Accessibility issue</th>
<th>Example solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student uses low-tech (i.e., not computerized) eye gaze to communicate.</td>
<td>• Offline Response Options: The test administrator may present the response options offline, in an alternate format for which the student is accustomed. The test administrator will then enter the student’s selected responses in the testlet in Student Portal.</td>
</tr>
<tr>
<td>The student uses eye gaze or another means and can only indicate yes/no responses.</td>
<td>Alternate Presentations of Response Options: 1. The test administrator may present the item and response options as follows:   o First, read the item and response options that are presented onscreen.  o Then, repeat the item and present response option 1, asking the student something like, “Do you want this option? Answer yes or no.”  o The student provides their response.  o The process is repeated for response option 2.  o The process is repeated for response option 3 until all response options have been presented to the student.  o If the student has indicated yes to more than one response option, read the selected options again, following the above process until the student has selected only one response option.  o If the student has not narrowed the selection to one response option, the test administrator may try another approach such as #2 in the example solutions below.</td>
</tr>
<tr>
<td>The student always selects the same response option, e.g., the first or the last option when presented the response options.</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>The student can be presented only two response options at a time.</td>
<td></td>
</tr>
<tr>
<td>Accessibility issue</td>
<td>Example solutions</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 2. The test administrator may present two response options at a time until the student has eliminated all but one response option. | - To maintain validity, present the response options in the same order they are presented in the onscreen testlet.  
- Present response option 1 and response option 2, and then say something like this to the student, “Which of these options do you want to choose?”  
- Be patient to allow the student time to select a response option.  
- Once a response is selected, present that response and option 3 and allow the student time to select a response.  
- Then, repeat the above process until all options have been presented.  
- When the responses have been narrow to the final response, enter it in the testlet in Student Portal. |
| The student uses one or two switches to access the computer but is not 100% consistent or accurate in their use. | - Use of switches  
  - The test administrator may use partner-assisted scanning to point to and/or read each response option.  
  - The student indicates when the desired response option is presented.  
  - Also, the test administrator may navigate from screen to screen and allow the student to use scanning to select the desired response option on each item screen. |
<table>
<thead>
<tr>
<th>Accessibility issue</th>
<th>Example solutions</th>
</tr>
</thead>
</table>
| The student needs special equipment for positioning of materials to respond to items, e.g., slant board or non-computerized materials, e.g., hook and loop materials on a board. | **• Special Equipment**  
  o The test administrator may use the equipment and materials that are familiar to the student.  
  o The student continues to interact with the content on the screen.  
  o The test administrator may navigate and enter responses that the student has indicated outside of Student Portal. |
| The student requires special technologies to complete the writing assessment. | **• Writing Testlets**  
  o Students may use the writing technologies or materials they normally use in everyday instruction to complete their DLM writing testlets as long as the materials involve the use of all 26 letters of the alphabet to produce letters and words.  
  o Students may not use word banks, picture banks, or symbol- or icon-based communication systems for the portion of the assessment that requires writing with the alphabet. Also, students may not also use whole word or sentence dictation or speech-to-text software. See *Error! Reference source not found.* on page 32 of this manual. Thorough coverage of the writing testlets is also found in the TEST ADMINISTRATION MANUAL. |
TESTING SUPPORTS: ALLOWED AND NOT ALLOWED

The following additional test supports are allowed:

- White boards
- Traditional keyboards using word processing software
- Adapted keyboards that include all 26 letters of the alphabet
- Tablet computer keyboards using word processing software
- Alternate keyboard, on screen switch enabled keyboard
  - Alternate pencils, including an alphabet flip charts
  - Eye-gaze displays of letters
  - Letter-by-letter dictation of any sort
  - Word prediction software
    - Word prediction is an intelligent word processing feature that can alleviate writing breakdowns for a range of students simply by reducing the number of keystrokes necessary for typing words, and it removes motor barriers to typing in order to reduce the gap between generating ideas and capturing them in writing.
  - Additionally, pens, pencils, markers, and crayons can be used for the writing product a student produces off the computer for the writing testlets.

The following are NOT allowed:

- Whole word or sentence dictation
  - The student is not allowed to dictate whole words or sentences since the full criteria for the administration of the writing testlets is not met and cannot be used for that purpose.
- Speech-to-text software
- Selection of pictures or words from a word bank.
  - Pictures, symbols, or words from a word bank are not allowed and may not be substituted for words in a sentence. This is forbidden because the meaning that an individual assigns to a picture or symbol depends upon the individual’s motivation, neurological and developmental status, sensory abilities, cognitive, communication, and language skills, and world experience (Mineo Mollica, 2003). Furthermore, the ability to learn the meaning of pictures or symbols is directly related to an individual’s understanding of the word associated with the picture or symbol. In other words, individuals who understand the meaning of the spoken word learn the associated picture or symbol rather easily while individuals who do not understand the spoken word take much longer to learn the meaning of the picture or symbol (Romski & Sevcki, 1996, 2005). Given that students who participate in the DLM alternate assessment have universally impaired cognitive and language skills, to have assurance
that each student’s understanding of pictures and symbols introduced in the assessment will match the intended meaning is a guarantee that is not possible.

Test administrators may also help students navigate across screens or enter responses that students select. The following section describes additional supports that are allowed.

Information on test administration practices that are not allowed is included in Table 4 below and can be found in the Practices Not Allowed section in the Test Administration Manual.

Table 4: Practices not allowed in administering testlets

<table>
<thead>
<tr>
<th>Practices Not Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeating the item after the student has selected a response. This action is considered prompting and may influence the student to choose a different response.</td>
</tr>
<tr>
<td>Using physical prompts or hand-over-hand guidance</td>
</tr>
<tr>
<td>Reducing the number of response options or giving content hints</td>
</tr>
<tr>
<td>Modifying the content of a performance task in a computer-delivered testlet in an attempt to help the student arrive at the correct response</td>
</tr>
<tr>
<td>Changing tone, inflection, or body language to cue the correct response when reading testlets to a student.</td>
</tr>
</tbody>
</table>

Students who take the DLM alternate assessment can indicate their response through whatever means they can that are allowed. Sometimes test administrators need to think creatively about how to support students with different means of expressive communication.

ALLOWABLE TEST ADMINISTRATION PRACTICES AND ACCESSIBILITY SUPPORTS FOR STUDENTS WITH INDIVIDUALIZED STUDENT RESPONSE MODES

Table 5 provides some examples of how accessibility supports and allowed practices apply to students who do not use a standard mouse and keyboard to enter their own responses.
ALLOWABLE TEST ADMINISTRATION PRACTICES AND ACCESSIBILITY SUPPORTS FOR STUDENTS WITH INDIVIDUALIZED STUDENT RESPONSE MODES

Table 5: Allowable Test Administration Practices and Accessibility Supports for Students with Individualized Student Response Modes

<table>
<thead>
<tr>
<th>Examples of Individualized Student Response Modes</th>
<th>Use of supports and allowable practices</th>
</tr>
</thead>
</table>
| The student uses eye gaze and receives a computer-delivered testlet. | • The test administrator may copy onscreen response options onto flash cards and place the cards on an eye-gaze display or far enough apart so the student can easily indicate their response using eye gaze and so that the test administrator can easily capture the student’s response options. The response options must match those provided on the screen. The test administrator will then enter the responses in the testlet for the student.  
• Partner-assisted scanning may be more useful for some students using this response mode. |
| The student is blind, and uses only a single-switch system to communicate.  
• The student receives testlets with pictures or manipulatives.  
• The TIP does not provide alternate text to describe the pictures or guidance on how the test administrator can deliver this assessment.  
• The student does not use braille, so that support was not chosen as a PNP Profile setting. | To change Category 2 settings in the PNP Profile during testing. See Changing PNP Profile Settings During Testing beginning on page 14 of this manual, and follow the process. Category 2 setting include selecting the single switch and also the Alternate Form- Visual Impairment. Remember, Alternate Form – visual Impairment forms are not available for every EE or linkage level. |
<table>
<thead>
<tr>
<th>Examples of Individualized Student Response Modes</th>
<th>Use of supports and allowable practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student usually accesses text with pictures. During instruction, the educator provides supplemental pictures as necessary, specifically for the response options, so the student can access the text. However, that practice is not allowed during the DLM assessment.</td>
<td>Most EEs that include a text focus on a student’s ability to make meaning from words. The text may be read aloud to the student by selecting the synthetic Spoken Audio or Human Read Aloud in the PNP Profile. However, the use of picture symbols to support word reading is not allowed. See Error! Reference source not found. page 32 of this manual for more information about supports that are not allowed.</td>
</tr>
</tbody>
</table>
| The student has a physical disability that results in limited mobility. The testlet requires the student to manipulate materials. | • A student with limited mobility may use their current mode of communication to direct the test administrator to select a response option and/or manipulate materials on their behalf.  
• The test administrator also may use the strategy of partner-assisted scanning for testing. The test administrator may select this setting in the student’s PNP Profile. NOTE: Partner-assisted scanning is a strategy used outside of the system. It is a Category 3 setting in the PNP Profile and, as such, does not make a direct change to a testlet. |
| The student needs special supports for positioning (e.g., slant board) or non-computerized materials (e.g., hook and loop objects on a board) to respond to items. | The test administrator may use the supports and materials that are familiar to the student. The student continues to interact with the content on the screen, but the test administrator may navigate and enter the student’s responses into Student Portal. |
| The student uses graphic organizers, supports, or other materials to complete academic work. | The test administrator may use the supports and materials that are familiar to the student. The student continues to interact with the content on the screen, but the test administrator may navigate and enter the student’s responses into Student Portal. See the TIP for each testlet for specific approved and unapproved materials. |
Using the general principles above and specific examples of supports that are allowed and not allowed, the test administrator plans assessment sessions for students who need additional supports. If supports that are not listed in this guide are provided, test administrators may be asked to describe these supports, as determined by state policy. The assessment coordinator can provide more information about state guidelines on additional supports.

**TESTLET INFORMATION PAGES AND ACCESSIBILITY**

Testlet Information Pages (TIPs) provide test administrators with information specific to each testlet, including exceptions to allowable supports, alternate text to use with human read aloud, and appropriateness of calculator use. While a test administrator may normally use all PNP Profile supports described in the *Error! Reference source not found.* section on page 32 of this manual, the TIP also indicates when it is not appropriate to use a support in a specific testlet.

Test administrators receive the TIP through Educator Portal after each testlet is assigned to a student. Test administrators review the TIP before beginning a student’s assessment. More information about the TIP, including how to access a TIP and the content of a TIP, is provided in the **EDUCATOR PORTAL USER MANUAL** and **TEST ADMINISTRATION MANUAL**. Also see the Test Tickets and TIPs helplet on the **Educator Resource Videos** on the DLM website (https://dynamiclearningmaps.org/erp/videos).

**STEP 4: SELECT AND VIEW SUPPORTS IN THE KITE SYSTEM**

**DEMONSTRATION OF PERSONAL NEEDS AND PREFERENCES SUPPORTS: WHAT STUDENTS WILL SEE**

This section provides more information, including screenshots, related to some of the PNP Profile accessibility supports described in Step 2 of the customization process. The supports described in this section include magnification, overlay color, invert color choice, contrast color, Spoken Audio, and switch use. Test administrators also can explore and try the PNP supports online through released testlets and can practice using the supports with students in Student Portal. Providing students ample time to use the supports in the released testlets enables test administrators to determine which settings work best for each student.

**HINT:** Combining overlay color, invert color choice, and contrast color results in a layering of the options, which is counterproductive and will not be helpful to the student.
**Magnification**

When test administrators choose magnification, the system zooms in on the whole screen (see Figure 8 and Figure 9). The magnification options are 2x, 3x, 4x, and 5x. Test administrators will have to scroll to the right and/or down to find the NEXT button when magnification is selected. Test administrators must keep in mind that this scrolling may negatively affect the student’s ability to access the assessment.

![Figure 8](image1.png)

Figure 8. A screenshot featuring 2x magnification.

![Figure 9](image2.png)

Figure 9. A screenshot featuring 5x magnification. Users must scroll both up and down and left and right because the size of the content exceeds the viewing area.
Overlay Color
Background overlay color options are blue, green, pink, gray, and yellow. The default is white. The font remains black (see Figure 10).

![Figure 10. A screenshot featuring overlay color in green.]

Invert Color Choice
The standard presentation in testlets is a white background with black font. When Invert Color Choice is selected, the background is black and the font is white (see Figure 11).

![Figure 11. A screenshot featuring invert color choice and 4x magnification.]

Contrast Color
Contrast color allows the test administrator to change both the background and the font colors. The background and font color options are a white background with green font, a white background with red font, a black background with gray font, or a black background with yellow font (see Figure 12).

![Figure 12. A screenshot featuring contrast color with a white background and green font.]
**Spoken Audio**

Spoken Audio has three types of options: text only, text and graphics, and nonvisual. The text and graphics option and the nonvisual option provide audio for images in addition to reading the onscreen text. The nonvisual option is intended for students who are blind or have visual impairments and therefore need the layout of the page described as well. For example, on technology-enhanced items, the Spoken Audio includes information about choosing response options on the left side of the screen and moving them to areas on the right side of the screen. The text-only option is appropriate when the student has some vision and does not require read aloud of physical layout and directional information.

The **READ** button is visible at the bottom of the screen upon opening the assessment, as shown in Figure 13.

![Figure 13. A screenshot featuring Spoken Audio icon.](image)

After clicking the **READ** button, the Kite system reads the text aloud. As shown in Figure 14, a sentence is highlighted while being read. Different information is read aloud depending on which option is selected in the PNP Profile: text and graphics, text only, or nonvisual. Specific information about spoken audio is in the **TEST ADMINISTRATION MANUAL**.

![Figure 14. A screenshot of how Student Portal highlights text during Spoken Audio.](image)
Switch Use

Table 6 and Table 7 summarize the actions that occur when switches are used for switch-accessible items in Student Portal. In both cases, if switch access is selected in the PNP Profile, then a switch interface is required for the student to use to interact with the testlets in Student Portal.

Table 6. Single-Switch Use by Item Type

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Single-Switch System</th>
</tr>
</thead>
</table>
| **Multiple choice:**  
Text or pictures as response options. | When Single Switch is selected, Student Portal will scan through each response option and navigation button on the page, based upon settings in the student’s PNP Profile. The following can be selected:  
• Activate by Default: This is automatically selected and cannot be changed.  
• The Scan Speed (seconds): This is the number of seconds the response option is highlighted, before the highlighting moves on to the next response option.  
• The Automatic Scan - Initial Delay: This is the length of the delay before scanning begins on each screen of a testlet.  
  o Value in seconds: The length of the delay, in seconds.  
  o Manual Override: This setting allows the student to initiate the scanning action on each screen of a testlet by pressing the switch.  
• The Automatic Scan Repeat Frequency: This is the number of times the items on each screen are scanned before the scanner stops. This can be 1 through 5 or infinity. |
| **Sorting:**  
The student moves response options from the left side of the screen into groups on the right side. | Student Portal will scan through each drop zone and navigation button, based on switch settings selected in the PNP Profile as described above. When a drop zone is selected, Student Portal then scans the response options from top to bottom within the drop zone until a response option is selected or the scan cycle has repeated the number of times selected in the Automatic Scan Repeat Frequency. |
| **Matching:**  
The student matches response options from two lists. | Student Portal will scan through the group of response options on the left, the group on the right, and the navigation buttons, based on switch settings selected in the PNP Profile as previously described.  
• First, the student uses the switch to select a set of response options.  
• Next, the system scans the response options within the set from top to bottom.  
• Then, the student uses the switch to select the individual response option. |
<table>
<thead>
<tr>
<th>Item Type</th>
<th>Single-Switch System</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td>In automatic scanning or manual override, after selecting a response option, the scanning stops. The scanning cycle restarts from the beginning when the student presses the switch.</td>
</tr>
<tr>
<td></td>
<td>NOTE: The response option remains highlighted as the system then scans top-to-bottom through the potential matching response options on the other side of the screen. When the student uses the switch to select the matching response option, the connecting line appears.</td>
</tr>
</tbody>
</table>

Table 7. Two-Switch Use by Item Type

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Two-Switch System</th>
</tr>
</thead>
</table>
| **Multiple-choice:** | 1. The student uses the switch set to emulate the Tab key to move from one response option to the next. Student Portal highlights each response option and the navigation button as the Tab key switch is activated.  
                          2. The student uses the switch set to emulate the Enter key to select a response option when highlighted to indicate the desired response. |
| Text or pictures as |                                                                                                                                                |
| response options.   |                                                                                                                                                 |
| **Sorting:**        | 1. The student uses the switch set to emulate the Tab key to move from one drop zone to the next.  
                          2. The student selects a drop zone when highlighted, using the switch set to emulate the Enter key.  
                          3. Once a drop zone is selected, the student uses the switch set to emulate the Tab key to move through response options in the drop zone from top to bottom.  
                          4. The student uses the switch set to emulate the Enter key to select an individual response option when highlighted.  
                          NOTE: The item remains highlighted as the student resumes use of the Tab and Enter key switches to select the target drop zone. |
| The student moves    |                                                                                                                                                 |
| response options     |                                                                                                                                                 |
| from the left side of| 1. The student uses the switch set to emulate the Tab key to move from one drop zone to the next.  
                          2. The student selects a drop zone when highlighted, using the switch set to emulate the Enter key.  
                          3. Once a drop zone is selected, the student uses the switch set to emulate the Tab key to move through response options in the drop zone from top to bottom.  
                          4. The student uses the switch set to emulate the Enter key to select an individual response option when highlighted.  
                          NOTE: The item remains highlighted as the student resumes use of the Tab and Enter key switches to select the target drop zone. |
| the screen into      |                                                                                                                                                 |
| groups on the right  |                                                                                                                                                 |
| side.               |                                                                                                                                                 |
| **Matching:**       | 1. The student uses the switch set to emulate the Tab key to move from the set of response options on the left to the set on the right and then to the navigation buttons.  
                          2. The student uses the switch set to emulate the Enter key to select a list when highlighted.  
                          3. Once a list is selected, the student uses the switch set to emulate the Tab key to move through response options in the list, from top to bottom.  
                          4. The student uses the switch set to emulate the Enter key to select an individual response option when highlighted.  
                          NOTE: The response option remains highlighted as the student resumes use of the Tab and Enter key switches to select the matching response option on the other side. |
| The student matches  |                                                                                                                                                 |
| response options     |                                                                                                                                                 |
| from two lists.      |                                                                                                                                                 |
### Item Type | Two-Switch System
---|---
**General Information** | After selecting a response option, selecting the Tab key restarts the cycle over from the beginning.

Activating the switch will highlight each option for the student. The **BACK** button is highlighted, as shown in Figure 15 and Figure 16.

**Figure 15.** A screenshot featuring a single-switch and two-switch example.

**Figure 16.** A screenshot featuring a single-switch and two-switch example.

**STEP 5: PREPARE FOR THE ASSESSMENT—USING THE CHOSEN ACCESSIBILITY SUPPORTS**

In addition to the supports listed in the TIP, test administrators may need the following:

- appropriate assistive devices for the student (e.g., switches)
- additional materials familiar to the student for use during the assessment (e.g., unit cubes)
- concentration aids used by the student (e.g., stress ball)
Information about preparing for teacher-administered and computer-delivered testlets is available in the Test Administration Manual.

**Accessibility Strategies**

Providing instruction aligned to the EEs and reinforcing similar vocabulary helps students prepare for the DLM assessment. Also, test administrators can help students develop comfort and confidence with test formats by using practice and released testlets.

In addition, the DLM Consortium has created online professional development learning modules to help test administrators understand both the content standards and the EEs, and their application to students with the most significant cognitive disabilities. Each of the interactive modules is short (30 to 45 minutes) and focuses on a single topic. Information about these modules is available under the Professional Development tab of the DLM website ([http://dynamiclearningmaps.org](http://dynamiclearningmaps.org)). Most of the modules are subject specific and provide information and strategies to help test administrators instruct students based on the subject being assessed in Student Portal.

**STEP 6: EVALUATE THE ACCESSIBILITY SUPPORTS USED AFTER ASSESSMENTS**

After the student completes all the testlets during the assessment window, test administrators and IEP teams need to evaluate the overall use of the accessibility supports. Test administrators will then be better informed and able to customize accessibility supports for future assessments. Test administrators and IEP teams can use the following list of questions to evaluate the accessibility supports used by students (Thompson et al., 2005).

**Questions to Guide Evaluation at the Student Level**

This section addresses supports both in and outside of the Kite system.

a. Which accessibility supports did the student use during instruction and assessment?
b. What were the results of classroom assignments and assessments when accessibility supports were used compared to when they were not used?
c. If a student did not meet the expected level of performance, was it caused by not having access to the necessary instruction, not receiving the appropriate supports, or using inappropriate accessibility supports?
d. How well did the student perceive the accessibility supports to work?
e. Which combinations of accessibility supports seemed to be effective?
f. What difficulties, if any, were encountered in the use of the accessibility supports?
g. How well did test administrators and others perceive the accessibility support to work?
h. Did the student receive the accessibility supports documented in their IEP?
i. Are the selected accessibility supports appropriate for the student’s continued use or should any be discontinued?
REFERENCES


http://dx.doi.org/10.1097/00001163-200507000-00002


## GLOSSARY

This glossary compiles relevant definitions and acronyms for the Dynamic Learning Maps® (DLM®) alternate assessment.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>display enhancements</td>
<td>Options to change the testlet appearance on the student’s device screen, including magnification, overlay color, inverted color choice, and contrast color.</td>
</tr>
<tr>
<td>Educator Portal (EP)</td>
<td>Educator Portal (EP) is the administrative application where staff and educators manage student data and retrieve reports. Users can access EP via <a href="https://educator.kiteaa.org">https://educator.kiteaa.org</a>. For information on working within EP, see the DATA MANAGEMENT MANUAL and the EDUCATOR PORTAL USER GUIDE on the DLM website.</td>
</tr>
<tr>
<td>engagement activity</td>
<td>An activity at the beginning of a testlet that describes a scenario, taps prior knowledge or experience, and/or introduces the concept to be addressed. In English language arts reading testlets, the first reading of the text often serves as the engagement activity. In mathematics and science, the engagement activity provides context for the items. Some science testlets at the upper linkage levels have a short video.</td>
</tr>
<tr>
<td>Essential Elements (EEs)</td>
<td>Specific statements of knowledge and skills linked to the grade-level expectations identified in K-12 grade-level standards for English language arts and mathematics. Essential Elements in science are linked to the National Research Council’s Framework for K-12. Essential Elements build a bridge from the content in the grade-level standards to academic expectations for students with the most significant cognitive disabilities.</td>
</tr>
<tr>
<td>First Contact (FC) survey</td>
<td>A survey used to collect background information about students who are eligible for the DLM alternate assessments. The survey goes beyond basic demographic information and includes questions on communication, assistive technology devices, motor and sensory impairments, and academic performance. Core questions from the FC are used to determine a student’s first testlet, or initialization, into the assessment.</td>
</tr>
</tbody>
</table>
**Kite Student Portal**
A secure customized interface used to deliver assessments to students. All students taking the DLM alternate assessment will have unique accounts in Kite Student Portal. Test administrators do not have accounts in Student Portal. See the **TEST ADMINISTRATION MANUAL** for more information about Student Portal.

**linkage level**
ELA and mathematics: A small section of the DLM map containing one or more nodes that represent critical concepts or skills needed to learn the EE. See the **TEST ADMINISTRATION MANUAL** for more information about the number and names of linkage levels for each DLM subject.

Science: An incremental level of complexity toward the learning target where an assessment was developed for that particular EE. Science has three linkage levels: Initial, Precursor, and Target. Linkage levels are always related directly to grade-level EEs but at different levels of cognitive complexity. The Target level is most closely related to the grade-level expectation.

**node**
ELA and mathematics: A representation in the DLM learning maps of an individual skill or conceptual understanding identified in the research in ELA and mathematics.

**Personal Learning Profile**
This is a collective term used to describe a student’s personal needs and preferences settings entered in the PNP Profile in addition to information about the student entered in the First Contact survey in Educator Portal.

**Personal Needs and Preferences Profile (PNP)**
Student-specific information that informs Kite Student Portal about an individual student’s personal needs and preferences. The PNP Profile includes information the system needs to make the student’s user interface compatible with their accessibility needs. In Educator Portal, the PNP Profile includes information about display enhancements, language and braille, and audio and environmental supports. Educators who know the student provide the information in the profile.

**released testlets**
A released testlet is a publicly available, sample DLM assessment. Released testlets may be used by students and teachers as examples or opportunities for practice. Released testlets are developed using the same standards and methods used to develop testlets that are used in DLM operational assessments. New released testlets are added periodically.
technology-enhanced items  Computer-delivered test items that require a specialized interaction, such as click and drag. A technology-enhanced item is any item that is not answered using direct selection.

testlet  Short for instructionally relevant testlet. A testlet begins with an engagement activity and is followed by several items that together increase the instructional relevance of the assessment and provide a better estimate of a student’s knowledge, skills, and understandings than can be achieved by a single assessment item. Each testlet has three to nine items depending on the subject. More specific information is found in the TEST ADMINISTRATION MANUAL.
APPENDIX A: OTHER SUPPORTS

The following table describes settings available under the Other Supports tab in the Personal Needs and Preferences (PNP) Profile in Educator Portal.

<table>
<thead>
<tr>
<th>Other Supports</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Form—Visual Impairment</td>
<td>Most testlets are designed for all students taking the DLM alternate assessment. For a limited number of Essential Elements (EEs) and linkage levels, alternate forms are provided for students with visual impairments. These testlets are teacher administered (not braille). When alternate forms are available, selecting this option will direct Student Portal to deliver that form. Alternate forms are not available for all Essential Elements at all linkage levels, when not available, at standard form will be delivered.</td>
</tr>
<tr>
<td>Two-Switch System</td>
<td>Two-switch scanning does not require activation in the PNP Profile. Student Portal automatically supports two-switch step scanning with a switch interface in which one switch is set up to emulate the Tab key to move between choices and the other switch is set up to emulate the Enter key to select the choice when highlighted.</td>
</tr>
<tr>
<td>Individualized Manipulatives</td>
<td>Test administrators may use manipulatives that are familiar to students (e.g., abacus, unit cubes, interlocking blocks, counters, linking letters).</td>
</tr>
<tr>
<td>Calculator</td>
<td>Test administrators may use a calculator unless the TIP indicates a calculator may not be used.</td>
</tr>
<tr>
<td>Human Read Aloud</td>
<td>For students who are English learners and whose best expressive and/or receptive communication is a language other than English, test administrators may translate the assessment for the student if their state policy permits. The Kite system does not provide language translations.</td>
</tr>
<tr>
<td>Other Supports</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sign Interpretation</td>
<td>For students whose primary mode of receptive communication is sign language, test administrators may sign the assessment to the student using American Sign Language (ASL), Signed Exact English, or personalized sign systems. Sign language interpreters use the alternate text provided in the TIP for picture descriptions.</td>
</tr>
<tr>
<td>Language Translation</td>
<td>For students who are English learners and whose best expressive and/or receptive communication is a language other than English, test administrators may translate the assessment for the student. The Kite system does not provide language translations. State policy will determine whether translation can be used.</td>
</tr>
<tr>
<td>Masking</td>
<td>Masking is not an option in Student Portal, but it is an acceptable support for students with visual impairments. Test administrators may use a piece of paper to cover portions of the screen to reduce visual clutter without otherwise affecting the information or number of response options.</td>
</tr>
<tr>
<td>Test Administrator Entering of Responses for Student</td>
<td>If students are unable to select response options themselves, they may indicate their responses through normal response types and/or forms of communication, such as eye gaze or gesture; test administrators may then key in those responses. This option is to be used only when students are unable to independently and accurately record their responses in Student Portal.</td>
</tr>
<tr>
<td>Partner-Assisted Scanning (PAS)</td>
<td>PAS is a support in which test administrators assist students with scanning students’ response options. Students indicate when their desired responses are presented.</td>
</tr>
</tbody>
</table>
**APPENDIX B: RELEVANT FEDERAL LEGISLATION**

**Every Student Succeeds Act of 2015**

The Every Student Succeeds Act (ESSA) replaces the No Child Left Behind Act of 2001 and amends the Individuals with Disabilities Education Improvement Act of 2004. The ESSA removes federally mandated interventions and instead assigns accountability at the state level. ESSA continues to require fair assessments for students with the most cognitive disabilities. States will

...provide for the participation in assessments of all students; the appropriate accommodations, such as interoperability with, and ability to use, assistive technology, for children with disabilities (as defined in section 602(3) of the Individuals with Disabilities Education Act (20 U.S.C. 1401(3))), including students with the most significant cognitive disabilities, and students with a disability who are provided accommodations under an Act other than the Individuals with Disabilities Education Act (20 U.S.C. 1400 et seq.), necessary to measure the academic achievement of such children relative to the challenging state academic standards or alternate academic achievement standards described in paragraph (1)(E). [Sec. 1111 2 B vii I II]

**Individuals with Disabilities Education Improvement Act of 2004**

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA) specifically governs services provided to students with disabilities. Accountability at the individual level is provided through IEPs developed for each student’s unique needs. IDEA requires the participation of students with the most cognitive disabilities in state- and district-wide assessments. Specific IDEA requirements include:

Children with disabilities are included in general state- and district-wide assessment programs, with appropriate accommodations, where necessary [Sec. 612 (a)(16)(A)]. The term “individualized education program” or “IEP” means a written statement for each child with a disability that is developed, reviewed, and revised in accordance with this section and that includes...a statement of any individual modifications in the administration of state- or district-wide assessments of student achievement that are needed in order for the child to participate in such assessment; and if the IEP team determines that the child will not participate in a particular state- or district-wide assessment of student achievement (or part of such an assessment), a statement of why that assessment is not appropriate for the child; and how the child will be assessed. [Sec. 614 (d)(1)(A)(V) and (VI)]
APPENDIX C: DLM ACCESSIBILITY WORKSHEET FOR TEST ADMINISTRATORS

**Directions:** Use this form to document the test supports needed by each student taking the DLM tests and to ensure that all supports are entered appropriately into the PNP in Student Portal. All accessibility features, accommodations, and test supports required by a student **must** be included in the student’s IEP.

Student Name: ___________________________________________ School Year: ____________

Grade: ___________ SASID: _______________________________________________________

School: ___________________________________________ District: __________________________

<table>
<thead>
<tr>
<th>Category 1: These must be activated in the PNP in Student Portal. Changes will update immediately.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification</td>
</tr>
<tr>
<td>Overlay Color</td>
</tr>
<tr>
<td>Invert Color Choice</td>
</tr>
<tr>
<td>Contrast Color Choice</td>
</tr>
<tr>
<td>Spoken Audio <em>(text only, text and graphics, nonvisual)</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category 2: These must be activated in the PNP in Student Portal. Test administrators will also need to supply additional materials/supports. Changes will update immediately in Student Portal with the exception of those with an asterisk (*), these will take at least 24 hours to update.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontracted Braille (UEB)*</td>
</tr>
<tr>
<td>Single-Switch System <em>(Access profile enabled)</em></td>
</tr>
<tr>
<td>Two-Switch System*</td>
</tr>
<tr>
<td>Individualized Manipulatives</td>
</tr>
<tr>
<td>Calculator <em>(See TIP sheets for individual testlets during testing)</em></td>
</tr>
<tr>
<td>Alternate Form – Visual Impairment*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category 3: Settings in the PNP Profile that require supports provided by the test administrator outside of Student Portal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Read Aloud</td>
</tr>
<tr>
<td>Sign Interpretation of Text</td>
</tr>
<tr>
<td>Language Translation of Text</td>
</tr>
<tr>
<td>Test Administrator Entering of Responses for Student</td>
</tr>
<tr>
<td>Partner-Assisted Scanning</td>
</tr>
</tbody>
</table>
## STATE APPENDICES

### DOCUMENT HISTORY

NOTE: Page numbers are valid ONLY for the date and version noted. They may change in future versions.

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<th>Starting Page</th>
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</thead>
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<td>08/01/2018</td>
<td>Updated Access Profile to Personal Needs and Preferences (PNP) Profile</td>
<td>Throughout</td>
</tr>
<tr>
<td></td>
<td>Category 2 Supports: Uncontracted braille, UEB and EBAE, alternate forms</td>
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</tr>
<tr>
<td></td>
<td>Information about 90-minute timeout</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Updates to section Supports: Allowed and Not Allowed</td>
<td>Error! Bookmark not defined.</td>
</tr>
<tr>
<td></td>
<td>Pictures as response options</td>
<td>Error! Bookmark not defined.</td>
</tr>
<tr>
<td></td>
<td>New Table Single-Switch Use by Item Type</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>New Table Two-Switch Use by Item Type</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Glossary: Updates and revisions to language in some entries</td>
<td>45</td>
</tr>
</tbody>
</table>