

ACCESSIBILITY MANUAL 2019-2020

ELA, MATHEMATICS, AND SCIENCE

Publication Date: 08/01/2019

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.

Dynamic Learning Maps® Consortium. (2019). *Accessibility manual for the Dynamic Learning Maps® alternate assessment, 2019–2020.* Lawrence, KS.

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 (www.dynamiclearningmaps.org) do not lead to solutions, these contacts can provide additional support.

For these topics:	Contact:
Kite® Student Portal installation	
General computer support	Local technology
Internet availability	representative
Display resolution	1
Issues with sound, headphones, speakers, etc. Head to see Challent Boutel and Educates Boutel	
How to use Student Portal and Educator PortalTraining requirements	
Assessment questions	
Assessment scheduling	Local assessment coordinator
Test invalidation requirements	2000 0000000000000000000000000000000000
Student IEP requirements	
Test window dates, extensions, requirements, etc.	
Test resets (may take up to 72 hours)	
Data issues (rosters, enrollment, etc.)	Local assessment coordinator
Data 155tics (105ters, enrollment, etc.)	or data manager

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:
 - o your contact information (email address and name)
 - o your school name (include the district if contacting state-level personnel)
 - o 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 DLM website at http://dynamiclearningmaps.org.

For instructions on using Educator Portal to select the supports appropriate for each student, see the EDUCATOR PORTAL USER GUIDE.

WHAT'S NEW IN THIS VERSION

Information about these topics has been added or enhanced in this version.

	Starting
Topic	Page
Updates to section Changing PNP Profile Settings During Testing	15
Updates to braille form availability during the assessment windows in	22
section Category 2 settings in the PNP Profile require additional	
supports or materials	
New section Strategies for students with the most complex needs	43
Updates to Glossary	46

To learn about updates to test administration resources such as this manual, subscribe to Test Updates on the DLM website (https://dynamiclearningmaps.org/test-updates).

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 department of education in each state determines which subjects and grades to assess. 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 for Learning, and using an appropriate vocabulary level. Universal Design for Learning 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). Universal Design for Learning 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 survey is a collection of 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 First Contact 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. Essential Elements 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 Essential Elements. Information gathered in the First Contact 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 English language arts (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 Essential Element, the DLM alternate assessment provides testlets at several different levels of complexity called linkage levels. ELA and mathematics have five linkage levels per Essential Element. 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 Essential Element. 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 Essential Element, 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.

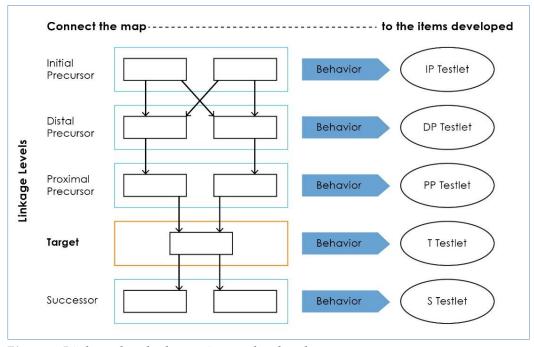


Figure 1. Linkage levels determine testlet development contents.

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 Essential Element.

ACCESSIBLE CONTENT FOR SCIENCE

The science Essential Elements are the science learning targets for students with the most 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 Essential Element 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 Essential Element. Science does not have a Successor linkage level at this time.

The other two linkage levels are lower in depth, breadth, and complexity 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 Essential Element, indicating a student's performance relative to the grade-level target.

Information gathered in the First Contact 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

Testlet structure differs slightly between 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 lead the student and test administrator through various stages of the writing process. Writing testlets are available at two levels of complexity: 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 the Precursor linkage level may also be designed around a short video (up to 30 seconds), with items presented after the video has been viewed.

See your state's webpage at <u>www.dynamiclearningmaps.org</u> to determine if your state tests in DLM science.

TESTLET ITEM DESIGN

Testlets are delivered and responses are collected in two general ways. Most testlets are designed for direct student interaction via computer. Information the test administrator enters in the First Contact survey determines the testlet format the student receives. Most students 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 4, and Figure 5.

ITEM TYPES

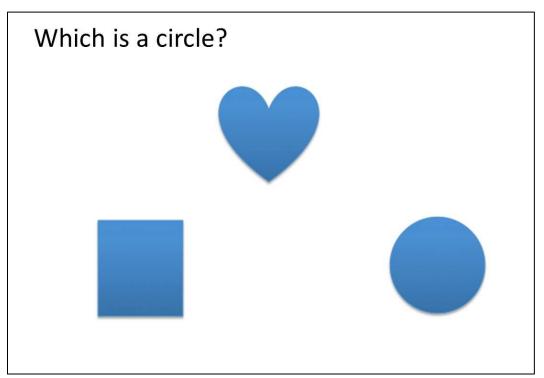


Figure 2. *A* screenshot of images as response options in a single-select multiple-choice item. The student is to select the image the text describes.

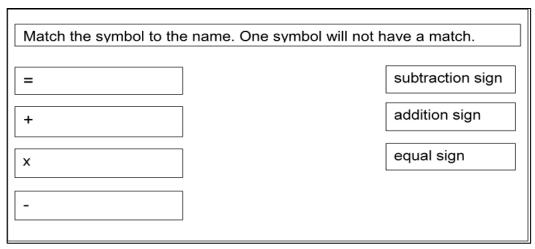


Figure 3. A screenshot of symbols and descriptive words in a matching item where two lists are shown. The student is to match a symbol from the list on the left to the descriptive words in the list on the right.



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.

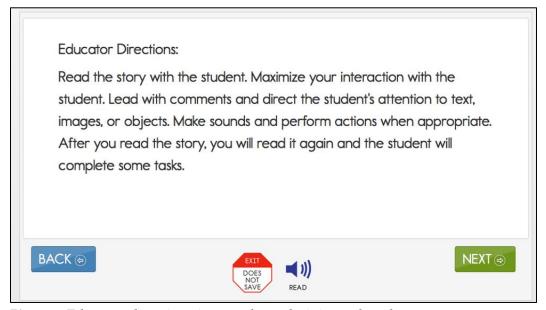


Figure 6. Educator directions in a teacher-administered testlet.

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).

Since the PNP Profile settings in Educator Portal activate the appropriate system accessibility supports, best practice is for test administrators to 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.

CHANGING PNP PROFILE SETTINGS DURING TESTING

To change a PNP Profile setting during testing, follow this process:

- The test administrator exits the testlet by using the Exit Does Not Save button.
 Contact the district assessment coordinator for direction if the use of Exit Does Not Save is not allowed in your state.
- 2. The test administrator logs into Educator Portal, goes to Settings and View Students, selects the PNP Profile, and selects or deselects the desired support settings.
- 3. The test administrator must save the new selection(s) in the PNP Profile before exiting.

Support	How soon does the change appear in the testlet after being updated in the student's PNP Profile?
Magnification	Immediately
Overlay Color	Immediately
Invert Color Choice	Immediately
Contrast Color	Immediately
Spoken Audio	Overnight
Braille, both UEB and EBAE	Overnight, if available for the testlet at the linkage level
Alternate Form-Visual Impairment	Overnight, if available for the testlet at the linkage level
Single-switch system	Overnight
Two-switch system	Immediately
Individualized manipulatives	Immediately
Calculator	Immediately

HINT: Braille testlets and Alternate Form – Visual Impairment testlets are not available for every Essential Element at every linkage level. However, standard forms of testlets are always available for every Essential Element at every linkage level. Therefore, if either a braille or an Alternate Form – Visual Impairment form was selected in the PNP Profile but is unavailable for the particular Essential Element or linkage level being tested, the testlet delivered will be a standard form. The test administrator is responsible for making the information accessible to the student using the methods that have been used during normal classroom instruction.

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).

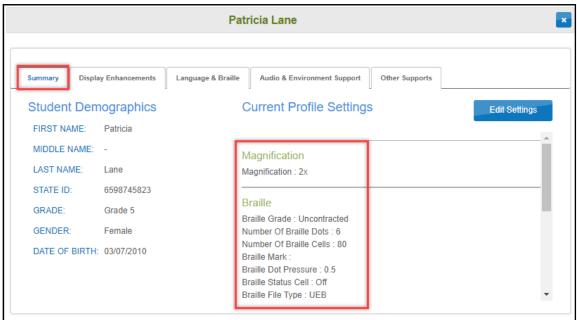


Figure 7. Screenshot of accessibility Summary tab. Data are for a fictional student.

The test administrator completes the First Contact 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 First

Contact survey are in the EDUCATOR PORTAL USER GUIDE. Additionally, the helplet video, Personal Learning Profile (https://dynamiclearningmaps.org/erp/videos), describes how to complete the First Contact survey. A testlet cannot be delivered to a student until the First Contact 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 Team
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 1-3 are intended to assist IEP teams in determining the appropriate accessibility supports for eligible students, and Steps 4-6 are a guide for educators and test administrators for 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 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 with the most significant cognitive disabilities have one or more disabilities that significantly affect intellectual functioning and adaptive behavior. Adaptive behavior is behavior that is essential to live independently and function safely in daily life. The Dynamic Learning Maps® (DLM®) alternate assessment is designed for students

with the most significant cognitive disabilities who require significant instruction and support both in and out of the classroom.

The DLM alternate assessment provides three general participation criteria and all three must be met.

- The student has a significant cognitive disability. Review of student records indicates one or more disabilities that significantly affect intellectual functioning and adaptive behavior.
- The student is primarily instructed using the Essential Elements as content standards. Goals and instruction listed in the student's IEP are linked to the enrolled grade-level DLM Essential Elements and address the knowledge and skills that are appropriate and challenging for this student.
- The student requires extensive, direct, and individualized instruction and substantial supports to achieve measurable gains in the grade- and age-appropriate curriculum. The student requires extensive, repeated, and individualized instruction and support that is not temporary or transient, and the student uses substantially adapted materials and individualized methods of accessing information in alternative ways to acquire, maintain, generalize, demonstrate, and transfer skills across multiple settings.

The following considerations are not allowable (or acceptable) for determining participation in the DLM alternate assessment.

- a disability category or label
- poor attendance or extended absences
- native language, social, cultural, or economic difference
- expected poor performance on the general education assessment
- academic and other services student receives
- educational environment or instructional setting
- percent of time receiving special education
- English learner status
- low reading level or achievement level
- anticipated student's disruptive behavior
- impact of student results on accountability system
- administrator decision
- anticipated emotional duress
- need for supports (e.g., Assistive Technology/Augmentative and Alternative Communication (AAC) to participate in the assessment process

Individual states may set additional eligibility criteria to establish which students are eligible to take the DLM alternate assessment. For additional guidance for IEP teams in this area, refer to the state department of education.

STEP 2: LEARN ABOUT THE ACCESSIBILITY SUPPORTS

ACCESSIBILITY SUPPORTS PROVIDED IN THE DLM ALTERNATE ASSESSMENT

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 support 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. If the state requires documentation about certain accessibility supports in the student's IEP, refer to the State Appendix (if provided) for more information, or contact the state department of education.

• Decisions about which supports to include in the DLM alternate assessment were made using results from more than 50,000 First Contact 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

Category 1 Settings in the PNP Profile that activate supports within Student Portal	Category 2 Settings in the PNP Profile that require supports or materials in addition to those within Student Portal	Category 3 Settings in the PNP Profile that require supports provided by the test administrator outside of Student Portal
 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

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.

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 DLM website (http://www.dynamiclearningmaps.org) for more information (e.g., the user names and passwords for the practice demo testlets). Released testlets are similar to real testlets. They are selected from a variety of Essential Elements and linkage levels across grades 3-8 and high school. New released testlets are added periodically.

- 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).

HINT: When using Spoken Audio, do not choose yellow for overlay color in the PNP Profile, as the Spoken Audio feature highlights the text in yellow, making it illegible to the student.

Screenshots showing these supports begin in the Demonstration of Personal Needs and Preferences Supports: What Students Will See section on page 35 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. Practice activities and released testlets with supports are available through several demo student accounts. See the Guide to Practice Activities and Released Testlets or the TEST ADMINISTRATION MANUAL for a list of demo logins for practice testlets.

 Braille: The DLM Alternate Assessment System supplies braille forms for some testlets at the Target linkage level. 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, if the state permits both. 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 Essential Elements, **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 (either UEB or EBAE) 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

Subject	Grades	Linkage Levels	Window
ELA and	3–5	Target and Successor	The fall and the spring
mathematics			assessment windows
ELA and	6–8 and HS	Proximal Precursor, Target,	The fall and the spring
mathematics		and Successor	assessment windows
Science	3–8 and HS	Target	The spring assessment
			window only

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 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 constraints for a specific testlet.
- 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.

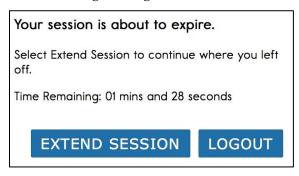
- Human read aloud: Test administrators may read the assessment aloud to students.
 Alternate text for test administrators who will deliver the human read aloud will
 include descriptions of graphics and alternate text descriptions of images and are
 provided as additional pages after the main TIP. The 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:



- 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 disabilities 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 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, such as those listed in the student's IEP. Other supports are available for use, even if not required in the student's IEP. These are supports the student may enjoy using and show a preference for, such as invert color choice.

Best practice is for the PNP Profile settings to 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 15 of this manual.

Also, during testing, best practice is to have student use only the PNP Profile supports or combination of supports that they have been using during regular instruction. Unfamiliar supports may be distracting and even detrimental during assessment.

DECIDING 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:

- a. To help a test administrator draw conclusions about a student's ability to use a selected PNP Profile support during assessments
- b. To make decisions about which PNP Profile support(s) best fit a student's individual needs and preferences
- c. 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 Essential Elements 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 oneon-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 also 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. Check state policy about amending the IEP.

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.

SUPPORTS: ALLOWED AND NOT ALLOWED

The following 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 predication 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.
- Pens, pencils, markers, and crayons can be used for the writing product a student produces off the computer for the writing testlets.
- Test administrators may also help students navigate across screens or enter responses that students select. The section Combining Accessibility Supports with Flexibility in Test Administration Procedures on page 28 describes additional supports that are allowed.

Pub: 08/01/2019

The following supports 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 & Sevcik, 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.

COMBINING ACCESSIBILITY SUPPORTS WITH FLEXIBILITY IN TEST ADMINISTRATION PROCEDURES

Effective use of the PNP Profile supports allows most students to have appropriate access to the assessment, making the DLM alternate assessment a meaningful indicator of students' knowledge and understanding of the Essential Elements. However, test administrators may need to combine the accessibility supports listed on the PNP Profile with practices that are part of the allowable flexibility in test administration procedures.

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.

Pub: 08/01/2019

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.

Table 3

Common Accessibility Issues and Example Solutions

Accessibility Issue	Example Solutions	
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. 	
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 Essential Elements, braille forms of the assessments are available. However, braille forms are available only at upper linkage levels and only for some Essential Elements. See instructions for how to access and prepare for administering testlets in braille in the EDUCATOR PORTAL USER GUIDE. 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 Essential Elements 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 	

Accessibility Issue	Example Solutions	
	testlet to the student using methods normally used during every day instruction.	
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. OR	 Human Read Aloud: The test administrator may use human read aloud to read the testlet aloud to the student. Familiar materials and tactile graphics: 	
 The student is blind, does not read braille, 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. 	 Paintilal Intaterials 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 TIP 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. 	
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.	
The student usually accesses text with pictures. During instruction, the educator provides supplemental	Most Essential Elements that include a text focus on a student's ability to make meaning from words. The text may be read aloud to	

can access the text. However, that practice is not allowed during the DLM assessment. PNP Profile. However, the use of picture symbols to support word reading is not allowed. See Supports: Allowed and Not Allowed on page 27 of this manual for more information about supports that are not allowed. • 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. Alternate Presentations of Response Options: 1. The test administrator may present the item and response options that are presented onscreen. Selected response options as follows: First, read the item and response options that are presented onscreen. The student always selects the same response option, e.g., the first or the last option when presented the response options. OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR The student always selects the same response option, e.g., the first or the last option when presented the response options and the sudent to the student. OR The student has indicated yes to more than one response option, read the selected options again, following the above process until the student has	Accessibility Issue	Example Solutions
allowed. 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. Alternate Presentations of Response Options: 1. The test administrator may present the item and response options as follows: Significant in First, read the item and response options that are presented onscreen. The student uses eye gaze or another means and can only indicate yes/no responses. OR OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR The student has indicated yes to more than one response option, read the selected options again, following the above process until the student has	pictures as necessary, specifically for the response options, so the student can access the text. However, that practice is not allowed during the	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 Supports: Allowed and Not Allowed on page 27 of this manual for more
1. The test administrator may present the item and response options as follows: First, read the item and response options that are presented onscreen. The student uses eye gaze or another means and can only indicate yes/no responses. OR OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR OR The test administrator may present the item and response options as follows: Then, repeat the item and present response option 1, asking the student something like, "Do you want this option? Answer yes or no." The student provides their response. The process is repeated for response option 2. The process is repeated for response option 3 until all response options have been presented to the student. 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	computerized) eye gaze to communicate.	allowed. • 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.
If the student has not narrowed the	The student uses eye gaze or another means and can only indicate yes/no responses. OR The student always selects the same response option, e.g., the first or the last option when presented the response options. OR	 The test administrator may present the item and response options as follows: First, read the item and response options that are presented onscreen. Then, repeat the item and present response option 1, asking the student something like, "Do you want this option? Answer yes or no." The student provides their response. The process is repeated for response option 2. The process is repeated for response option 3 until all response options have been presented to the student. 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.

Accessibility Issue	Example Solutions
Accessionity Issue	2. The test administrator may present two response options at a time until the student has eliminated all but one response option. O To maintain validity, present the response options in the same order they are presented in the onscreen testlet. O 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?" O 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 narrowed to the final response, enter it in the testlet
The student uses one or two switches to access the computer but is not 100% consistent or accurate in their use.	 in Student Portal. 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.
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 The test administrator may use the equipment and materials that are familiar to the student. The student continues to interact with the content on the screen. The test administrator may navigate and enter responses that the student has indicated outside of Student Portal.

Accessibility Issue	Example Solutions
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.
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 requires special technologies to complete the writing assessment.	 Writing Testlets 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. 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 use whole word or sentence dictation or speech-to-text software. See Supports: Allowed and Not Allowed on page 27 of this manual. Thorough coverage of the writing testlets is also found in the TEST ADMINISTRATION MANUAL.

While allowed supports and practices during assessment administration offer a great deal of flexibility, some practices are not allowed. These practices are described in the Practices Not Allowed section in the TEST ADMINISTRATION MANUAL and are summarized in Table 4 below.

Table 4

Practices not allowed in administering testlets

Practices Not Allowed

- 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.
- Using physical prompts or hand-over-hand guidance.
- Reducing the number of response options or giving content hints.
- Modifying the content of a performance task in a computer-delivered testlet in an attempt to help the student arrive at the correct response.
- Changing tone, inflection, or body language to cue the correct response when reading testlets to a student.

Note. See Supports: Allowed and Not Allowed on page 27 of this manual for more information about why these are prohibited.

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.

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 Supports: Allowed and Not Allowed section on page 27 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 in 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 GUIDE and TEST ADMINISTRATION MANUAL. Also see the Test Tickets and TIPs helplet on the Educator Resource Videos page (https://dynamiclearningmaps.org/erp/videos) on the DLM website (https://dynamiclearningmaps.org).

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 see the entire screen and 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.

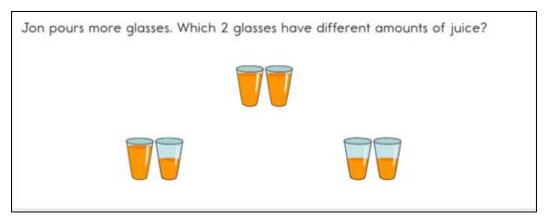


Figure 8. A screenshot featuring 2x magnification.

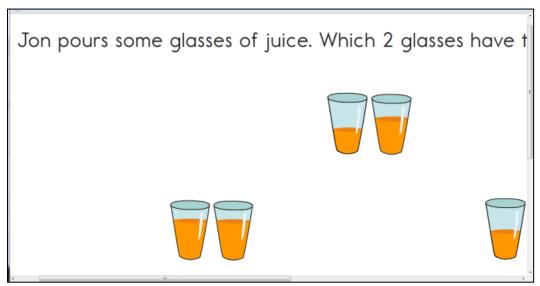


Figure 9. A screenshot featuring 5x magnification. Users must scroll both up and down and left and right because the size of the content exceeds the viewing area.

Overlay Color

Background overlay color options are blue, green, pink, gray, and yellow. The default is white. The font remains black (see Figure 10).

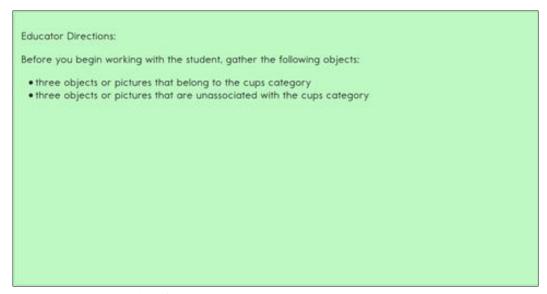


Figure 10. A screenshot featuring overlay color in green.

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).

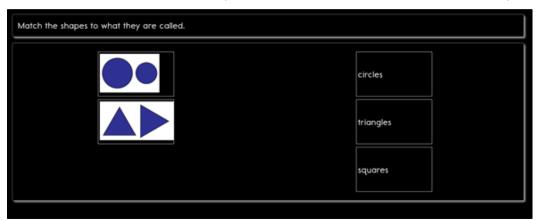


Figure 11. A screenshot featuring invert color choice and 4x magnification.

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).

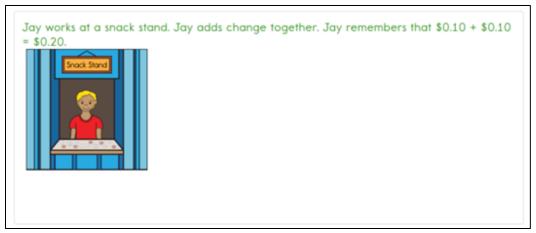


Figure 12. A screenshot featuring contrast color with a white background and green font.

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.

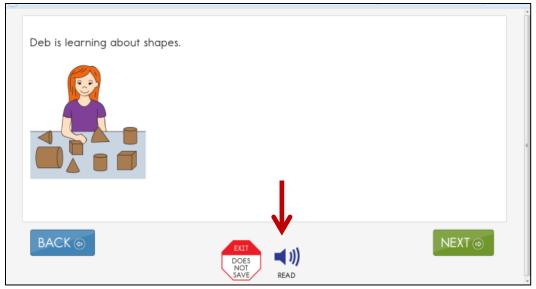


Figure 13. A screenshot featuring Spoken Audio icon.

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.

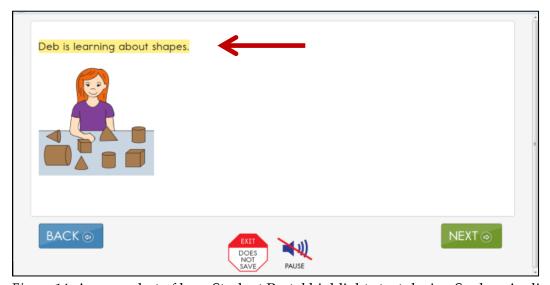


Figure 14. A screenshot of how Student Portal highlights text during Spoken Audio.

Switch Use

Table 5 and Table 6 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 5
Single-Switch Use by Item Type

Item Type	Single-Switch System				
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. Value in seconds: The length of the delay, in seconds. 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 1-5 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 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. 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 				

Item Type	Single-Switch System		
	switch to select the matching response option, the connecting line		
	appears.		
General Information	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.		

Table 6

Two-Switch Use by Item Type

Item Type	Two-Switch System				
Multiple-choice: Text or pictures as response options.	 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. The student uses the switch set to emulate the Enter key to select a response option when highlighted to indicate the desired response. 				
Sorting: The student moves response options from the left side of the screen into groups on the right side.	 The student uses the switch set to emulate the Tab key to move from one drop zone to the next. The student selects a drop zone when highlighted, using the switch set to emulate the Enter key. 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. 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. 				
Matching: The student matches response options from two lists.	 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. The student uses the switch set to emulate the Enter key to select a list when highlighted. 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. The student uses the switch set to emulate the Enter key to select an individual response option when highlighted. 				

Item Type	Two-Switch System			
	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.			
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.

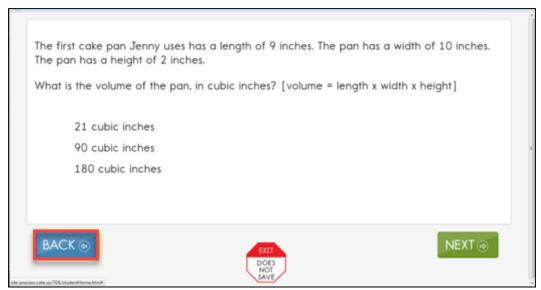


Figure 15. A screenshot featuring a single-switch and two-switch example.

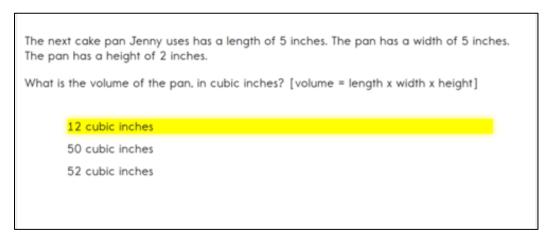


Figure 16. A screenshot featuring a single-switch and two-switch example.

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 Essential Elements 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 Essential Elements, 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). 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.

STRATEGIES FOR STUDENTS WITH THE MOST COMPLEX NEEDS

Two professional development modules are especially designed for instruction for students with the most complex needs who complete the DLM assessments at the Initial and Distal Precursor linkage levels. Professional development modules are located through the DLM website at https://www.dlmpd.com/.

- "Beginning Communicators" describes symbolic and non-symbolic forms of communication, the distinction between pre-intentional and pre-symbolic communicators, and identifies additional sources of support for building communication skills.
- "Symbols" is an overview of symbols to support communication and interaction. The module also describes the use of symbols and photographs in text.

Five other modules can also be appropriate for these students:

"Writing with Alternate Pencils" describes ways to get students started with writing
when they cannot use a traditional pencil, pen, or computer keyboard. The content
of this module applies to students at all levels of literacy understanding including
students who do not yet know letter names or sounds.

- "DLM Core Vocabulary and Communication" focuses on the use of core vocabulary
 as a support for communication for students who cannot use speech to meet their
 face-to-face communication needs and require augmentative and alternative
 communication.
- "Measuring and Comparing Lengths" focuses on understanding the attribute of length, how to compare and measure units, and the use of number lines and rulers in the measuring process.
- "Perimeter, Volume, and Mass" focuses on the basic concepts of perimeter, volume, and mass.
- "Patterns and Sequence" discusses recognizing and creating patterns as a basic mathematics skill upon which many mathematical concepts are based, and using repetition with variety to support student understanding of patterns.

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 able to further 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?

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GLOSSARY

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

display enhancements

Options that change the testlet appearance on the student's device screen, including magnification, overlay color, inverted color choice, and contrast color.

Educator Portal

Educator Portal is the administrative application where staff and educators manage student data and retrieve reports. Users can access Educator Portal via https://educator.kiteaai.org/. For information on working within Educator Portal, see the DATA MANAGEMENT MANUAL and the EDUCATOR PORTAL USER GUIDE on the DLM website.

engagement activity

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. The engagement activity for some science testlets at the upper linkage levels include a short video.

Essential Elements

Essential Elements build a bridge from the content in the grade-level standards to academic expectations for students with the most significant cognitive disabilities. They are 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.

First Contact Survey

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 First Contact survey are used to recommend the linkage level for each Essential Element during the fall window. Core questions are also used during the spring window for any Essential Elements that were not tested during the fall window.

Instruction and Assessment Planner

A part in Educator Portal where test administrators perform assessment functions for a student during both the fall and spring windows. Functions include selecting an Essential Element and linkage level for instruction and subsequent testing. Most data about the student can be accessed from the Instruction and Assessment Planner, including mastery of an Essential Element at the tested linkage level and indications when the blueprint requirements are met.

instructionally embedded assessment (IE versions)

Assessment that occurs throughout instruction in both the fall and spring windows.

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 learning map model containing one or more nodes that represent critical concepts or skills needed to learn the Essential Element. ELA and mathematics each have five linkage levels: Initial Precursor, Distal Precursor, Proximal Precursor, Target, and Successor.

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

materials

Materials generically refer to any objects, manipulatives, and tools used during an assessment. Materials lists are specific for each subject during each window. The lists are found on each state's DLM website under Educator Resources.

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 (PNP) Profile

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. 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 found in Educator Portal.

plan

A plan is created in the Instruction and Assessment Planner in Educator Portal. A plan includes the educator-selected Essential Element and educator-selected linkage level and leads to the educator-assigned testlet for ELA, mathematics, and science during the fall window and ELA and mathematics during the spring window.

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.

state education agency (SEA)

A state department of education.

stem

The stem is the beginning part of the item that presents a problem to solve or an item to respond to. The stem may also include other relevant information in the item. A multiple choice item is a common example in the DLM alternate assessment, consisting of a stem and a set of response options from which to choose.

technologyenhanced 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 (IE version)

A short assessment that begins with an engagement activity and includes three to nine items, depending on the subject. Together the items 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 assesses only one Essential Element except for the writing testlet, which assesses all writing Essential Elements together in one testlet. Testlets are either teacher-administered or computer-delivered. More specific information is found in the TEST ADMINISTRATION MANUAL.

DYNAMIC LEARNING MAPS APPENDICES

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.

Other Supports	Definition			
Alternate Form- Visual Impairment	Most testlets are designed for all students taking the DLM alternate assessment. For a limited number of Essential Elements 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, a standard form will be delivered.			
Two-Switch System	Student Portal automatically supports two-switch step scannir 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. Test administrators record two-switch scanning in PNP Profile settings.			
Individualized Manipulatives	Test administrators may use manipulatives that are familiar to students (e.g., abacus, unit cubes, interlocking blocks, counters, linking letters).			
Calculator	Students may use a calculator unless the TIP indicates a calculator may not be used.			
Human Read Aloud Test administrators may read the assessment aloud to stud Alternate text for test administrators who will deliver the human read aloud will include descriptions of graphics and alternate text descriptions of images and are provided as additional pages after the main TIP.				

Other Supports	Definition			
Sign Interpretation	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.			
Language Translation	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.			
Masking	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.			
Test Administrator Entering of Responses for Student	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.			
Partner-Assisted Scanning (PAS)	Partner Assisted Scanning (PAS) is a support in which test administrators assist students with scanning students' response options. Students indicate when their desired responses are presented. Test administrators record PAS in PNP Profile settings.			

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 AND IEP TEAMS

States may use this worksheet to indicate which supports must be determined by IEP teams and to document the supports provided to each student. When updating supports during testing, note that Category 1 supports update in the system immediately, as do individual manipulatives and calculator use from Category 2. However, four of the Category 2 supports require 24 hours to update: braille, Alternate Form—Visual Impairment, Single-Switch, and Two-Switch systems.

Accessibility Support	Settings in the PNP Profile that activate supports within Student Portal	Settings in the PNP Profile that requires supports or materials in addition to those within Student Portal	Settings in the PNP Profile that require supports provided by the test administrator outside of Student Portal	Settings Selected for STUDENT NAME	Notes and Evaluation
	Category 1	T	ı		
Magnification	X				
Overlay Color	X				
Invert Color Choice	X				
Contrast Color	X				
Spoken Audio • Text Only	X X				
Text and GraphicsNonvisual	X				
Category 2					
Uncontracted Braille EBAE		X			
Uncontracted Braille UEB		X			

Accessibility Support	Settings in the PNP Profile that activate supports within Student Portal	Settings in the PNP Profile that requires supports or materials in addition to those within Student Portal	Settings in the PNP Profile that require supports provided by the test administrator outside of Student Portal	Settings Selected for STUDENT NAME	Notes and Evaluation
Single-Switch					
System (Access		X			
Profile Enabled)					
Two-Switch System		X			
Individualized		Х			
Manipulatives		Λ			
Calculator		See TIP			
Alternate Form—		X			
Visual Impairment		Λ			
			Category 3		
Human Read Aloud			X		
Sign Interpretation			X		
of Text			Λ		
Language			X		
Translation of Text			Λ		
Test Administrator					
Entering of			X		
Responses for					
Student					
Partner-Assisted			X		
Scanning			,,		

STATE APPENDICES

DOCUMENT HISTORY

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

-	Section Name/	
Date	Summary of Changes	Starting Page
08/01/2019	Updates to section Changing PNP Profile Settings	15
	During Testing	
	Updates to braille form availability during the	22
	assessment windows in section Category 2 settings in	
	the PNP Profile require additional supports or	
	materials	
	New section Strategies for students with the most	43
	complex needs	
	Updates to Glossary	46