ACCESSIBILITY MANUAL 2023–2024

SCIENCE

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Version Science

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.

FINDING HELP

When the information in this manual and resources from your state Dynamic Learning Maps® (DLM®) webpage do not lead to solutions, these contacts can provide additional support (Table 1).

> HINT: Print this page and keep it handy!

Table 1
Additional Supports for Users

Local Technology Representative	State Education Agency	The DLM Service Desk* 1-855-277-9751 (toll-free) or DLM-support@ku.edu
Kite® Student Portal installation General computer support Internet availability Display resolution Issues with sound, headphones, speakers, etc.	How to use Student Portal and Educator Portal Training requirements Assessment questions Assessment scheduling Test invalidation requirements Student Individualized Education Program (IEP) requirements Test window dates, extensions, requirements, etc. Testlet resets (may take up to 72 hours)	Data issues (rosters, enrollment, etc.) Unlocking Student Portal

WHEN CONTACTING THE DLM SERVICE DESK

- **Do not send any Personally Identifiable Information** (PII) for a student via email or Live Chat in Educator Portal. 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 or sent via Live Chat in your state.

  NOTE: All information in an email is taken into consideration when checking for PII violations. The electronic signature for the sender of an email may identify the district or school in which a student resides. This information, combined with other student identifying information, may constitute a PII violation for your state.

- Do send
  - o Your contact information (email address and name)
  - o Your school and district name, if your state permits these in an email or chat that also contains student information
  - o Error messages (include the testlet number if applicable to the problem)

ACCESSIBILITY MANUAL 2023–2024

CONTENTS

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 Alternate Assessment System.

ADDITIONAL RESOURCES

Additional procedural information on 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 https://dynamiclearningmaps.org.

For instructions on using Kite® Educator Portal to select the supports appropriate for each student, access the Educator Portal User Guide.

WHAT'S NEW IN THIS VERSION

Information about these topics has been added or enhanced in this version (Table 2).

Table 2
Changes in this Version of the Manual

Topic	Starting Page
Table 1: Additional Supports for Users	3
Update about the First Contact Survey	12
New Section: Supports That Do Not Work Well Together	20
New Section: Using Practice Activities and Released Testlets	20
Additional clarification for supports not allowed	24

To learn about updates to test administration resources such as this manual, subscribe to Test Updates on the DLM website.

ABOUT THE DYNAMIC LEARNING MAPS ALTERNATE ASSESSMENT SYSTEM

Educators use the Dynamic Learning Maps® (DLM®) Alternate Assessment System to assess what students with the most significant cognitive disabilities know and can do in the DLM subjects in grades 3–8 and one or more grades in high school. The subjects and grades that are assessed in each state are determined by the state's department of education policy. The DLM Alternate Assessment System provides accessibility by design and is guided by the core beliefs that all students should have access to challenging, grade-level content, and that test administrators must adhere to the highest levels of integrity in providing instruction and in 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. When test administrators understand how the DLM alternate assessment is designed for accessibility and how accessibility supports can be customized for their students, they are better enabled to determine the supports that are most suitable for each student.

ACCESSIBLE CONTENT

Accessible content is essential to student success. Staff from consortium member states along with staff from the Dynamic Learning Maps® (DLM®) Alternate Assessment project worked together to develop assessments at various complexity levels by using an appropriate vocabulary level and by creating item-writing guidelines based on Universal Design for Learning.

Universal Design for Learning is a scientifically valid framework for guiding educational practices for all students, including students with the most significant cognitive disabilities and students who have limited English proficiency (Higher Education Opportunity Act, 2008). The framework enables students to demonstrate their knowledge and skills while allowing flexibility in the way they respond. The framework engages the content, maintains high achievement expectations, and reduces barriers in instruction while providing appropriate challenges and supports. This framework is critical to understanding how students with the most significant cognitive disabilities can achieve success within content standards that is enriched and enhanced with the use of technology for assessment administration.

The technology used for the assessments is an online testing interface that is part of the Kite® Suite. The two parts of the Kite Suite used for the DLM alternate assessments are Educator Portal, where educators perform their administrative tasks, and Student Portal, where students are assessed. The administrative work must be completed before students can be administered assessments in Student Portal. The assessments are at grade level but are at a reduced depth, breadth, and level of complexity while maintaining an appropriate balance of academic challenge and access to the content. This balance is determined from information about the student provided by the test administrator in a collection tool in Educator Portal called the First Contact Survey.

An overview and some specific information about the First Contact Survey is in this manual. However, detailed instructions on where to access the First Contact Survey and how to complete it are in the Educator Portal User Guide. A complete list of the First Contact Survey questions is in the appendix of the TEST ADMINISTRATION MANUAL, and a helplet video: Completing the First Contact Survey and PNP Profile describes how to find and complete the First Contact Survey and Personal Needs and Preferences (PNP) Profile. The video is on the DLM website for each state.

The First Contact Survey includes information about the student's communication method, any assistive technology devices the student might use, motor and sensory impairments the student may have, and the student's level of academic performance. Some items from the First Contact Survey are used to link the student with assessments at the most appropriate level of complexity in science. The DLM assessments are known as testlets. These are a grouping of three to five items (questions) and are built to show the relationships between the knowledge

and skills necessary to learn the information in the DLM standards called the science Essential Elements.

The science Essential Elements are the science learning targets for students with the most significant cognitive disabilities. They are linked to each state's general education science standards. From the complete list of science Essential Elements, some were selected to be used for assessments. These are called the testing blueprints. Most states use the [General DLM Science Phase I Blueprint (pdf)](#), but three states use the [DLM Science Phase I Blueprint with Biology—DE, DC, and MD Only (pdf)](#). Test administrators can find the blueprints for science on their state's DLM webpage.

Both science blueprints 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 Essential Element in both blueprints has three complexity bands called linkage levels. Linkage levels describe where a student's performance is in relationship to the grade-level target. From the least complex to the most complex, the linkage levels are named the Initial, the Precursor, and the Target.

THE INITIAL LINKAGE LEVEL

Testlets developed at the Initial linkage level often reflect foundational aspects of the content standards which include 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. These 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 or records their observations of the student in Student Portal.

THE PRECURSOR LINKAGE LEVEL

The Precursor linkage level is between the Initial linkage level and the Target linkage level. The Precursor linkage level identifies significant milestones on the way to the knowledge and skills described by the Essential Element, indicating a student's performance relative to the grade-level standards.

THE TARGET LINKAGE LEVEL

The Target linkage level is the highest linkage level currently and is written at the level of the Essential Element. The Precursor and Initial linkage levels are lower in depth, breadth, and complexity than the Target linkage level.

NUMBER OF TESTLETS DELIVERED

Students are required to take nine science testlets during the spring assessment window. In states where the biology Essential Elements are tested in high school, the test administrators

will administer an additional end-of-instruction biology assessment for a total of 10 testlets in the window. Each testlet assesses one Essential Element.

When the required spring assessment window opens, the first testlet that is delivered is based on the information provided by the student's teacher in the First Contact Survey. After the first testlet is submitted, the second testlet becomes available in about 15 minutes, and its linkage level is based on the student's performance on the first testlet. The system determines whether the next testlet should be delivered at the same linkage level, a higher level, or a lower level. The remaining testlets continue to be adaptive based on student performance on the preceding testlet. Since every testlet is packaged and delivered separately, the test administrator can determine when to schedule the administration of each testlet within the state assessment window.

In addition to being able to administer testlets one at a time, each testlet is designed to assess only a small number of items. Testlet and item design is discussed in the next section.

TESTLET DESIGN

Testlets are designed in two general formats: computer-delivered or teacher-administered. The format is based on the information the test administrator recorded in the First Contact Survey. Science testlets open with an engagement activity followed by the items to be answered. The engagement activity is designed to motivate the student, provide a context, and activate the student's prior knowledge. The activity can be one of four types:

- The first type of engagement activity is simply a single screen with one or two pictures along with a short sentence that introduces the science topic to be assessed. The items in this testlet will not assess the engagement screen itself but will assess the Essential Element topic.
- A second type of engagement activity describes a scenario, which taps prior knowledge or experience, introduces the concept to be addressed, and provides context for the items. The items in this testlet type will assess information in the engagement activity and in the Essential Element topic.
- A third type of engagement activity 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 or at the end of the second presentation. The items in this testlet type will assess information in the engagement activity and in the Essential Element topic.
- The fourth type of engagement activity is a short, silent video (up to 30 seconds) and is only found in the upper grade bands and the upper linkage levels. Students will access the short video and then respond to three items that include still-frame photos from the video.

NOTE: The entire video clip is completely silent.

After the engagement activity, the testlet contains three to five items which are all in a single-select, multiple-choice format.

NOTE: The test administrator may provide support to the student if needed. This support is permitted with a few exceptions that are described in the Supports: Allowed and Not Allowed section in this manual.

Screenshots of item types in computer-delivered testlets are shown in Figure 1 and Figure 2.

ITEM TYPES

Figure 1
Screenshot of Single-Select, Multiple-Choice Item with Text as Response Options

Val makes a table of the length of daylight in November.

Day	Daylight (hours)
November 1	8
November 8	7
November 15	6
November 22	5

What happens to the length of daylight from November 1 to November 22?

goes up

goes down

stays the same

Most testlets are designed for direct student interaction via the computer, and many students can interact with the computer independently. However, all testlets at the Initial linkage level and some testlets at the Precursor linkage level are teacher-administered. These testlets include step-by-step guidance for the test administrator and are designed to be administered outside of Student Portal, as shown in Figure 2. The test administrator records the student's responses in the testlet in Student Portal.

Figure 2

Teacher-administered Item where Test Administrator Enters Observations of Student into the Testlet in Student Portal.

Record student response:

□ Indicates melting stick of butter:

□ Indicates solid stick of butter:

□ Indicates both pictures
□ Indicates or attends to other stimuli
□ No response

CUSTOMIZATION FOR EACH STUDENT

The First Contact Survey and the Personal Needs and Preferences (PNP) Profile are records of data in Educator Portal about the student that is entered by the test administrator. The system uses the data from the First Contact Survey and the PNP Profile to ensure the student is provided with the most appropriate testing experience possible. The data is used to:
- Recommend or assign the complexity level for the testlets (e.g., linkage level)
- Customize the accessibility supports for the testlets (e.g., magnification)
- Assign the appropriate form for the testlets (e.g., braille)

SUBMITTING THE FIRST CONTACT SURVEY

The First Contact Survey includes information about the student's communication method, any assistive technology devices the student might use, motor and sensory impairments the student may have, and the student's academic performance. Some items from the First Contact Survey are used to link the student with assessments that are at the most appropriate level of complexity in each subject.

Entering data into the First Contact Survey is an essential step in the assessment process. If the student is on a science roster at least 24 hours before the state's assessment window opens, and if the test administrator submits the student's First Contact Survey at least 24 hours before the state's assessment window opens, the first testlet will be ready and

available on the opening day of the window. If the assessment window opens before the student is rostered or before the First Contact Survey is submitted, the first testlet will be available 24 hours after the First Contact Survey is submitted

Instructions on how to access and complete the First Contact Survey are in the Educator Portal User Guide. A complete list of the First Contact Survey questions is in the appendix at the back of the TEST ADMINISTRATION MANUAL. Additionally, the helplet video Completing the First Contact Survey and PNP Profile describes how to find and complete the First Contact Survey and PNP Profile.

NOTE: For the 2023–2024 school year, several changes were made in the First Contact Survey. Therefore, the status of all surveys will be **Not Started**. Teachers must start each student's Survey anew, answering all required questions before submitting the Survey. Each Survey will take approximately 15–20 minutes to complete.

Although the First Contact Survey is used to determine the level of complexity or linkage level of a testlet, the PNP Profile is used to customize the testlets, making them more accessible for the student. Supports in the PNP Profile are listed under five tabs: Summary, Display Enhancements, Language & Braille, Audio & Environment Support, and Other Supports. Also, the student can use special devices such as alternate keyboards, touch screens, or switches to access the items. After the appropriate supports are selected and saved, the test administrator may review them in the Summary tab, as show in Figure 3.

Figure 3
Screenshot of Accessibility Summary Tab with Fictional Student Data
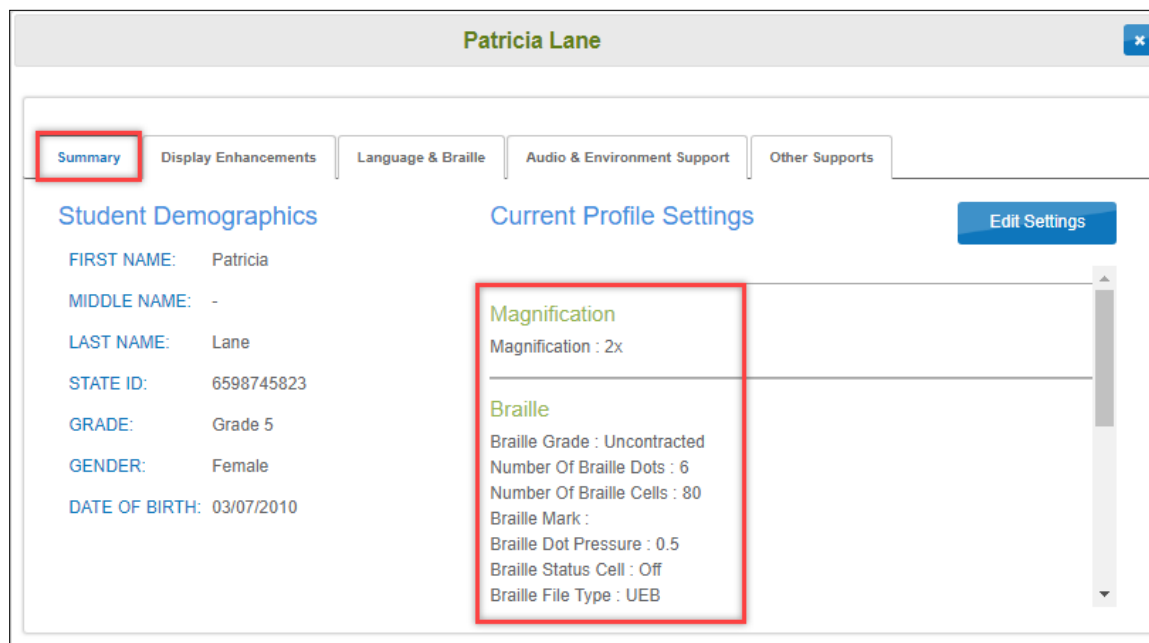
SIX STEPS TO CUSTOMIZE DYNAMIC LEARNING MAPS ACCESSIBILITY SUPPORTS FOR STUDENTS

This section presents a six-step process for IEP teams, general and special education teachers, test administrators, and district-level assessment staff to use in the selection, administration, and evaluation of accessibility supports available for students to use in Student Portal.

☐ Step 1: Include Eligible Students in the DLM Alternate Assessment
☐ Step 2: Learn About the Accessibility Supports
☐ Step 3: Discuss and Select Appropriate Accessibility Supports—Considerations for IEP Teams
☐ Step 4: Select and View Supports in the Kite® System
☐ Step 5: Prepare for the Assessment—Using the Chosen Accessibility Supports
☐ Step 6: Evaluate the Accessibility Supports Used After Assessments

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

Legislation focused on accountability and inclusion of all students for assessment has driven the need to ensure equal access to grade-level content standards. Students with the most significant cognitive disabilities are included in state and district accountability systems to receive the benefits gained from participation, such as improved instruction, higher expectations, and involvement in educational reforms (Thurlow et al., 1997). 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 2015.

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:

1. The student has a significant cognitive disability. Review of student records indicates one or more disabilities that significantly affect intellectual functioning and adaptive behavior.
2. 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.

3. The student requires extensive, direct, repeated, and individualized instruction and substantial support that is not temporary or transient to achieve measurable gains in the grade- and age-appropriate curriculum. 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 neither allowable nor 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 the student receives
- Educational environment or instructional setting
- Percent of time receiving special education
- English language learner status
- Low reading level or achievement level
- Anticipated student's disruptive behavior
- Impact of student results on accountability system
- Administrator decision
- Anticipated emotional distress
- Need for supports (e.g., assistive technology or 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. IEP teams should refer to their state's 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 between accessibility supports that (a) can be utilized by selecting online supports via the Personal Needs and Preference (PNP) Profile, (b) require additional support materials, or (c) are provided by the test administrator outside the Kite® system. In Table 3, the user will find the supports that are in each category. If the state requires documentation about certain accessibility supports in the student's IEP, refer to the State Appendix in this manual (if provided) for more information, or contact the state's department of education.

Decisions about the 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.

Table 3

Accessibility Supports of the DLM Alternate Assessment System

Category 1: Settings in the PNP Profile that activate supports within Student Portal	Category 2: Settings in the PNP Profile that activate supports within Student Portal in addition to supports (tools) provided by the test administrator outside of Student Portal	Category 3: Settings in the PNP Profile that require supports provided by the test administrator outside of Student Portal
Contrast color Invert color choice Magnification Overlay color Spoken audio	Alternate form-visual impairment Calculator Individualized manipulatives Single-switch system (PNP Profile enabled) Two-switch system English Braille American Edition (EBAE) for ELA with Nemeth Code for mathematics and science Uncontracted braille (UEB) for ELA, mathematics, and science Uncontracted braille (UEB) for ELA with Nemeth Code for mathematics and science	Human read aloud Language translation of text Partner-assisted scanning Sign interpretation of text Test administrator entering of student responses

SUPPORT CATEGORIES

Category 1: Settings in the PNP Profile that Activate Supports within Student Portal

Online supports include contrast color, invert color choice, magnification, overlay color, and poken audio. Directions detailing how to select the PNP Profile supports are found in Step 4: Select and View Supports in the Kite System on page 31 of this manual.

Test administrators are advised to try out the supports in advance of testing by using the practice demo testlets and released testlets to make sure the supports that were chosen are compatible with the student and provide the best access for them. Usernames and passwords for these testlets are available in the Guide to Practice Activities and Released Testlets on the [DLM website](). Released testlets are like 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.

- **Contrast color:** Allows test administrators to choose from color schemes for the background and font.
- **Invert color choice:** Makes the background color black and the font white. Images display with a white background.
- **Magnification:** Allows test administrators to choose the degree of screen magnification during assessment. Test administrators can choose between a magnification of 2×, 3×, 4×, or 5×. Without magnification, the font is Report School, 22-point size. When the level of magnification is increased beyond the size of the screen, left to right and up and down scrolling will likely be required 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 device's screen being used by the student. When a student needs a very large increase in magnification, an interactive whiteboard, projector, or any magnification device that works with the computer screen is allowed.
- **Overlay color:** The default background color of the assessment is white. Test administrators may select from the alternate colors of blue, gray, green, pink, and yellow. Practice demo testlets have specific presets, but more options are provided in the PNP Profile and actual live testlets.
- **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. The nonvisual preference also describes the page layout for students who are blind or have visual impairments.

> HINT: When using spoken audio, as the words are spoken, the text is highlighted in yellow. Therefore, do not choose yellow for overlay color in the PNP Profile or the spoken udio highlighting feature will be hidden to the student.

Screenshots showing these supports begin in the Demonstration of Personal Needs and Preferences Supports: What Students Will Experience section on page 31 of this manual.

Category 2: Settings in the PNP Profile that Activate Supports in Student Portal in Addition to Supports or Materials Provided by the Test Administrator Outside of Student Portal

These supports include braille, switch system preferences, and the use of special supports and materials. These supports typically require prior planning and setup. The test administrator selects these supports in the PNP Profile. Practice activities and released testlets with some supports are available through several demo student accounts. Access the Guide to Practice Activities and Released Testlets or the TEST ADMINISTRATION MANUAL for a list of demo logins for practice testlets.

- **Alternate Form-Visual Impairment:** This form is a suitable additional choice for a student who can read braille, for a student who is blind but cannot read braille, or for a student who has a significant visual impairment. The test administrator selects alternate form-visual impairment in the PNP Profile under the Other tab. 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).
- **Calculator:** Use of a calculator is not permitted for science testlets.
- **Individualized manipulatives:** Students will likely not need manipulatives for science testlets, but they are permitted unless constrained for a specific testlet. Refer to the testlet's Testlet Information Page (TIP).
- **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 the 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.

Braille

The DLM Alternate Assessment System supplies braille forms for some science Essential Elements at the Target linkage level during the spring assessment window. 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 and should not be selected for emerging braille readers. All braille forms are uncontracted braille.

- The test administrator must select the appropriate braille form in the student's PNP Profile. Three uncontracted braille forms are available:

  - English Braille American Edition (EBAE) for ELA, with Nemeth code for mathematics and science
  - Unified English Braille (UEB) for ELA, mathematics, and science
  - Unified English Braille (UEB) for ELA, with Nemeth code for mathematics and science

A Braille Ready File (BRF) has the letters BRF as part of the naming convention in the testlet name, in the test ticket, and in Student Portal (e.g., SP **BRF** SCI MS.PS1-2 T 10455).

When braille has been selected for a student in the PNP Profile, these are the steps the Kite system uses for delivering a braille form:

- If a braille form is available for the Essential Element at the linkage level, the braille form is delivered.
- If a braille form is not available for the Essential Element at the linkage level, the Kite system will automatically look for an alternate form-visual impairment form of the testlet: BVI form.
- If a BVI form is available for the Essential Element at the linkage level, the BVI form is delivered.
- If a BVI form is not available for the Essential Element at the linkage level, the system will automatically provide a standard form of the testlet.

The test administrator of the student who is blind or visually impaired is responsible for making the standard testlet information accessible, using permissible, familiar methods that were used during normal classroom instruction with the student. The Testlet Information Page may have some suggestions to help with assessment administration.

Table 4 has information about the availability of braille forms for science by linkage level and window.

Table 4

Availability of Braille on Testlets

Subject	Grades	Linkage Levels	Window
Science	3–8 and high school	Target	Only in the spring assessment window

Category 3: Settings in the PNP Profile that Require the Test Administrator to Provide All Supports Outside of 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 are always permitted to 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. The descriptions and alternate text are provided as additional pages after the main TIP.
- **Language translation of text:** Language translations are not provided via the computer. Test administrators may translate the text for students who are English language learners or who communicate best in a language other than English. State policy will guide whether translation can be used.
- **Partner-assisted scanning:** Partner-assisted scanning is a strategy in which test administrators assist students with scanning students' response options. Test administrators read and point to each response option, and students indicate their answer when they are presented their desired response.

- **Sign interpretation of text:** Test administrators are always permitted to sign the content to students using American Sign Language (ASL), Signing Exact English, or personalized sign systems.
- **Test administrator entering student responses:** If a student is unable to physically input their response options, they may indicate their responses through their typical response mode and form of communication (e.g., assistive device, eye gaze, gesture). Test administrators may key in a student's response in Student Portal only when a student is unable to record their responses independently.

SUPPORTS NOT AVAILABLE IN STUDENT PORTAL

Some supports not available in the system include the following:
- **Sign language using human or avatar videos onscreen:** Most 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.

SUPPORTS THAT DO NOT WORK WELL TOGETHER

- Not all PNP Profile supports are compatible with each other in Student Portal.
- Combining spoken audio with yellow for overlay color results in the spoken audio highlighting feature to be hidden to the student.
- Combining spoken audio with yellow text in contrast color also results in the spoken audio highlighting feature to be hidden to the student.
- Combining contrast color, invert color choice, and overlay color results in a layering of the options, which is counterproductive and will not be helpful to the student.
- The single-switch and two-switch highlighting feature highlights in yellow. Therefore, combining overlay color in yellow with the single-switch or two-switch support results in the response options being hidden to students.

A few screenshots showing a sampling of these supports begins in the Demonstration of Personal Needs and Preferences Supports: What Students Will Experience section on page 31 of this manual.

USING PRACTICE ACTIVITIES AND RELEASED TESTLETS

To be prepared for how a testlet will be displayed with the chosen supports, before the beginning of an assessment window, open Student Portal. Use the released testlets with the provided fake student usernames and passwords to evaluate whether the selected supports make the testlets accessible to the student. These resources are intended for three main purposes:
- To help a test administrator draw conclusions about a student's ability to use a selected PNP Profile support during assessments
- To make decisions about the PNP Profile supports that best fit a student's individual needs and preferences

- To provide students with opportunities to practice using navigation tools in the testlets prior to the day of the student's first assessment

Released testlets are 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.

CHANGING PNP PROFILE SETTINGS DURING TESTING

Since the selected settings in PNP Profile activate the supports in Student Portal, best practice is to select the supports **before** the student begins testing. However, when necessary, the test administrator can adjust the PNP Profile settings if they are not working well for the student or if the student's needs changes during an assessment window.

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

1. The test administrator exits the testlet by using the **Exit Does Not Save** button.

NOTE: If the use of **Exit Does Not Save** is not allowed in your state, then finish and submit the current testlet. Then, make any necessary changes in the PNP Profile **immediately**—before the next testlet is delivered, which is usually about 15 minutes.

2. The test administrator logs in to Educator Portal, goes to the student's PNP Profile, and selects or deselects the desired support settings.
3. The test administrator **must save** the new selections before exiting the PNP Profile.

Table 5 outlines how soon the change appears in the testlet after being updated in the PNP Profile.

Table 5

Accessibility Support Delay Time after Updating the Student's PNP Profile

| Support	How Soon the Change Appears in the Testlet
Alternate form-visual impairment	Overnight, if available for the Essential Element at the linkage level being tested
Braille (EBAE, UEB with Nemeth code, UEB ELA/math)	Overnight, if available for the Essential Element at the linkage level being tested
Contrast color	Immediately
Individualized manipulatives	Immediately
Invert color choice	Immediately
Magnification	Immediately
Overlay color	Immediately
Single-switch system	Overnight
Spoken audio	Overnight
Two-switch system	Immediately

The DLM alternate assessments are administered individually and are not subject to specific timeframes like most general education assessments. Any flexibility a student requires regarding the assessment time and location is permissible. A student may take as much time and as many breaks as needed, and work in settings that are most appropriate for them. However, if a student needs a significant break during the administration of a testlet, and if Student Portal sits inactive for as long as 90 minutes, it will time out.

This is how the system timeout works: After 88 minutes and 30 seconds of inactivity in the testlet, the system prompts the student with a warning message, as shown in Figure 4. A countdown of 90 seconds begins, during which the student may either extend the session or logout.

Figure 4
Kite Student Portal Warning of Session Ending
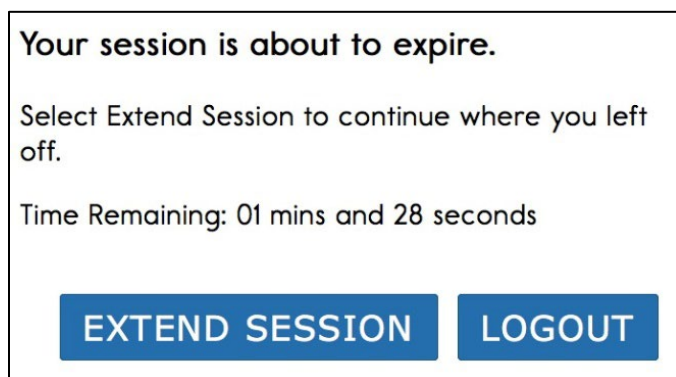
- If no activity occurs before the countdown reaches zero, the system closes the testlet and returns to the login screen. The testlet status returns to **Unused**, and the system retains no responses.
- If **Extend Session** is selected, the system disregards the idle time, closes the prompt, and returns to the screen where the student was working.
- If **Logout** is selected, the system closes the testlet and returns to the login screen. The testlet status returns to **Unused**, and the system retains no responses.

TESTLET RESETS AFTER AN EXTENDED INTERRUPTION

Educators sometimes question why answers are not saved when a testlet times out. Research has revealed that 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. Each testlet begins with an engagement activity that is designed to activate prior knowledge, motivate the student, and provide 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 time out after an extended period of inactivity without retaining the responses, allowing the student to begin the assessment afresh when ready.

STEP 3: DISCUSS AND SELECT APPROPRIATE ACCESSIBILITY SUPPORTS—CONSIDERATIONS FOR IEP TEAMS

Best practice during testing is to provide students with the PNP Profile supports or a combination of supports that the student has been using during regular instruction. Unfamiliar supports may be distracting and even detrimental during assessment.

DECIDING THE ACCESSIBILITY SUPPORTS THAT ARE NEEDED

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

Students with the most significant cognitive disabilities who are also English language 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.

GUIDING QUESTIONS FOR THE 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 is 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 or when interacting in an online environment?
- Which current supports help the student with these difficulties when working one-on-one in the classroom or when interacting in an online environment? What kinds of instructional strategies (e.g., auditory, tactile, visual, or 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 impairment?

- Which effective combinations of accessibility supports will help the student?

(Thompson et al., 2005)

Test administrators may need to amend a student's IEP to include 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 additional assistance during the assessment to be able to interact with the computer. Testlets delivered directly to students via the computer are designed under the assumption that students can interact with the computer independently.

SUPPORTS: ALLOWED AND NOT ALLOWED

The following supports are allowed:
- Adapted keyboards that include all 26 letters of the alphabet
- Alternate keyboard; onscreen switch-enabled keyboard
- Alternate pencils, including alphabet flip charts
- Eye-gaze displays of letters
- Letter-by-letter dictation of any sort
- Tablet computer keyboards using word processing software
- Traditional keyboards using word processing software
- White boards
- Word prediction software

Word predication is an intelligent word processing feature that can alleviate writing breakdowns for a range of students by reducing the number of keystrokes necessary for typing words. The feature removes motor barriers to typing and reduces the gap between generating ideas and capturing ideas in writing.

Test administrators may also help students navigate across screens or enter responses on behalf of a student. The section Combining Accessibility Supports with Flexibility in Test Administration Procedures on page 25 describes additional allowable supports.

The following supports are **not** allowed:
- Selection of pictures* or words from a word bank
- Speech-to-text software
- Whole word or sentence dictation
- Calculator

*Picture-response cards that accompany science testlets at the Initial level are permitted and **must** be used.

The student is not allowed to dictate whole words or sentences to a human scribe or use speech-to-text software. Full administration of the writing testlets requires the student to engage in letter-by-letter spelling that would be bypassed through dictation of whole words or sentences.

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). Because students who participate in the DLM alternate assessment have universally impaired cognitive and language skills, it is not possible to ensure that each student's understanding of pictures and symbols in the assessment will match the intended meaning.

COMBINING ACCESSIBILITY SUPPORTS WITH ALLOWABLE PRACTICES IN TEST ADMINISTRATION PROCEDURES

Effective use of the PNP Profile supports allows most students to have appropriate access to the assessment, making the 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 allowable practices that are part of the flexibility in test administration procedures.

When customizing the assessment process with accessibility supports and allowable practices, keep in mind two general principles: (a) the student is expected to respond independently, and (b) supports are to be familiar to the student because they have been used during routine instruction.

Table 5 describes some common accessibility issues and potential solutions that are based on a combination of accessibility supports and allowable practices. The example solutions are for both computer-delivered and teacher-administered testlets.

Table 6

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, 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. This table includes additional example solutions of how students may indicate response options.
The student is blind and typically reads braille.	**Braille forms** Braille forms for science are available at the Target linkage level during the spring assessment window, but only for some Essential Elements. Instructions for how to access and prepare for administering testlets in braille are in the Educator Portal User Guide. **Alternate form-visual impairment form** When braille forms are not available, an alternate form-visual impairment form may be available. These forms are only available for some Essential Elements at the Target linkage level. **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 onscreen for the student. Familiar materials may be substituted for unfamiliar materials if the criteria of the item being tested is met. Use the Testlet Information Page (TIP) to learn about the images. **SHOW** When the Educator Directions in a testlet use words like SHOW, the test administrator should present the content of the testlet to

Accessibility Issue	Example Solutions
	the student using methods normally used during everyday instruction.
The student has a severe visual impairment and needs the content to appear larger 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.
The student is blind and does not communicate verbally. OR The student is blind, does not read braille, and uses only a single-switch system to communicate. The student is blind and 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.	**Human read aloud** The test administrator may always read the testlet aloud to the student. **Familiar materials and tactile graphics** Objects, tactile graphics, or tactile representations of pictures or objects presented onscreen as a concrete representation may be used. Test administrators may use individualized tactile representations with their students. Always access the TIP before administering the testlet since the TIP usually provides more information. The test administrator should use the allowable methods and practices used during everyday instruction in the classroom to make the testlet accessible to the student. Refer to sections Retrieve the Testlet Information Pages and Gather Materials in the TEST ADMINISTRATION MANUAL.
The student uses sign language to communicate and has limited proficiency in reading text.	**Sign language** The test administrator may sign the text, spell unfamiliar words, and adapt or interpret 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 pictures as necessary, specifically for the response options, so the student can access the text. However, that practice is not allowed during the DLM alternate assessment.	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 the student by selecting synthetic spoken audio or human read loud in the PNP Profile. Using picture symbols to support word reading is not allowed. Review Supports: Allowed and Not Allowed on page 24 of this manual for more information about why picture symbols are not allowed.

Accessibility Issue	Example Solutions
The student uses low-tech (not computerized) eye gaze to communicate.	**Offline response options** The test administrator may present the response options offline in an alternate format in which the student is accustomed. The test administrator will then enter the student's selected responses in the testlet on Student Portal.
The student uses eye gaze or another means and can only indicate yes or 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 student can be presented only two response options at a time.	**Alternate presentations of response options** 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 all response options or to more than one response option, read the selected options again, following the above process until the student has selected only one response option. If the student has not narrowed the selection to one response option, the test administrator may try another approach such as the following example solutions: The test administrator may present two response options at a time until the student has eliminated all but one response option. To maintain validity, present the response options in the same order they are presented onscreen. 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: option 1 or option 2?" Be patient to allow time for the student to respond.

Accessibility Issue	Example Solutions
	Once a response is selected, present that response along with option 3. 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 in Student Portal.
The student uses one or two switches to access the computer but is not 100% consistent or accurate in their use.	**Use of switches** The test administrator may use partner-assisted scanning to point to and read each response option. The student indicates when the desired response option is presented. 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 the positioning of materials to respond to items (e.g., slant board) or noncomputerized 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 the student has indicated outside of Student Portal.
The student uses graphic organizers, supports, or other materials to complete academic work.	The test administrator may use supports and materials that are familiar to the student. The student interacts with the content onscreen, but the test administrator may navigate and enter the student's responses into Student Portal. Access the TIP for each testlet for 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 or manipulate materials on their behalf. The test administrator also may use the strategy of partner-assisted scanning for testing. The test administrator should select this support in the student's PNP Profile.

Accessibility Issue	Example Solutions
	Note: Partner-assisted scanning is a strategy used outside of the system. It is a Category 3 support in the PNP Profile and does not make a direct change to a testlet.

While allowed supports and practices during assessment administration offer a great deal of flexibility, some practices are not allowed.

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 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.

Review Supports: Allowed and Not Allowed on page 24 of this manual for more information about supports that are prohibited.

OTHER ASSESSMENT RESOURCES FOR STUDENTS WITH COMPLEX NEEDS

Students who take the DLM alternate assessment can indicate their response through any means allowed. Sometimes test administrators need to think creatively about how to support students with different means of expressive communication. The assessment coordinator or special education director may be able to provide help thinking through ideas for specific student situations and the methods that can be employed to provide access for a student with complex needs.

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) are included with every testlet and provide test administrators with information specific to each testlet, including exceptions to allowable supports, alternate text to use with human read aloud, and whether a calculator can be used. While a test administrator normally may use all selected PNP Profile supports, the TIP indicates when a support or tool cannot be used for a specific testlet (e.g., that a calculator is not permitted for a particular mathematics testlet).

The TIP for the testlets at the Initial linkage level will include objects that must be gathered or picture-response cards that **must** be printed before testing begins since both are used during test administration. Best practice is to print the picture-response cards in color.

Most TIPs contain alternate text for the test administrator to use for students who are blind or visually impaired. The only exception is if the alternate text would cue an answer (e.g., if a student is asked to identify which shape is a triangle). The TIP would not include alternate text that named the shapes in the response options. In that instance, the alternate text page would include "Do not describe." The teacher would then rely on the BVI pages to have manipulatives ready for those students who are unable to rely on the images on the screen.

The TIP becomes available in Educator Portal once the testlet is assigned to a student. Test administrators should access the TIP, review it, and gather any necessary supports **before** beginning a student's assessment. The TIP can be printed several hours or even days before the testlet is to be administered in order to have enough time to be prepared. For example: A science testlet at the Initial linkage level testlet will include picture-response cards that must printed or objects that must be gathered. Best practice is to print the picture-response cards in color. After the testlet is submitted, the TIP is no longer available in Educator Portal. The TIP is a secure testing document. When the TIP is downloaded and printed, it must be securely destroyed after the testlet is administered.

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. Sample TIPs are available on each state's webpage on the [DLM website](#). Also, refer to the [Science Test Tickets and TIPs in the Spring Window](#) helplet on the DLM website.

NOTE: TIPs for testlets at the Initial linkage level contain much more information than TIPs for testlets at higher linkage levels.

For the majority of computer-delivered testlets at the Precursor or Target linkage level, almost everything a student needs is displayed on the computer screen within the testlet itself. However, the TIP will still have information about supports that may not be allowed for the particular testlet.

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

DEMONSTRATION OF PERSONAL NEEDS AND PREFERENCES SUPPORTS: WHAT STUDENTS WILL EXPERIENCE

This section provides more information, including screenshots of how some of the supports could appear, related to some of the PNP Profile accessibility supports described in Step 2: Learn About the Accessibility Supports of the customization process. The supports described in this section include contrast color, invert color choice, magnification, spoken audio, and switch use. Also, test administrators can explore and try the PNP profile supports online using 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 the supports that will work best for each student.

Contrast Color

Contrast color allows the test administrator to change both the background and the font color. The background and font color options are:

- A white background with green font, as shown in Figure 5
- A white background with red font
- A black background with gray font
- A black background with yellow font

Figure 5
Screenshot Featuring Contrast Color with a White Background and Green Font

Val makes a table of the length of daylight in November.

Day	Daylight (hours)
November 1	8
November 8	7
November 15	6
November 22	5

What happens to the length of daylight from November 1 to November 22?

goes up

goes down

stays the same

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, as shown in Figure 6.

Figure 6

Screenshot Featuring Invert Color Choice and 4x magnification

Val makes a table of the length of daylight in November.

Day	Daylight (hours)
November 1	8
November 8	7
November 15	6
November 22	5

What happens to the length of daylight from November 1 to November 22?
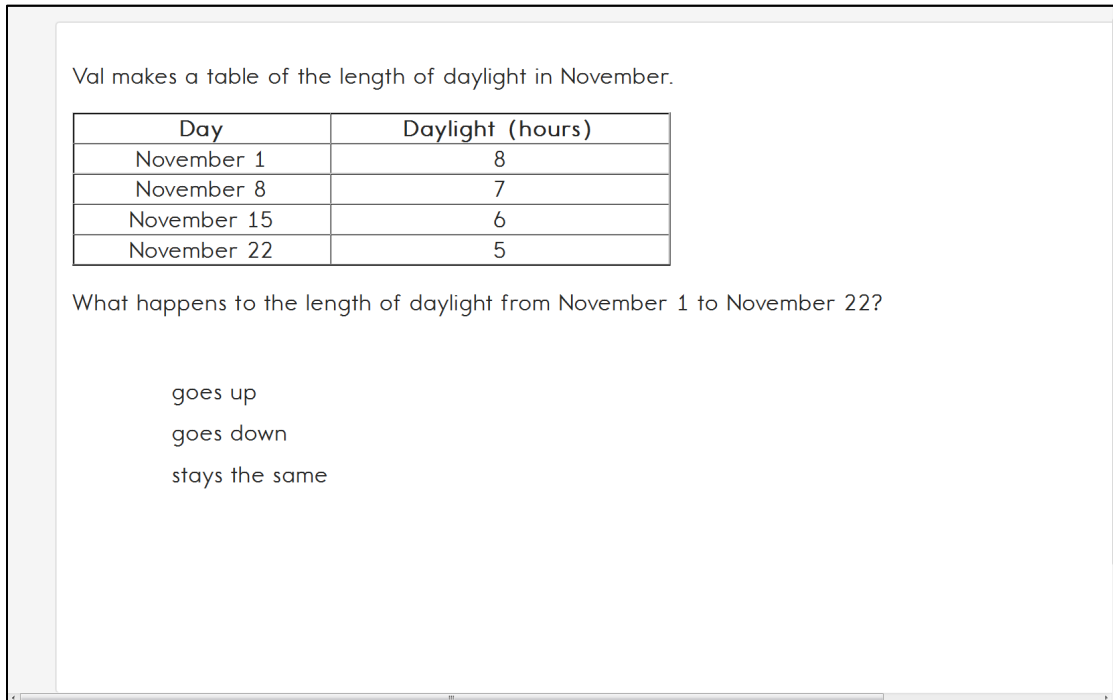
goes up

goes down

stays the same

Magnification

When test administrators choose magnification, the system zooms in on the whole screen, as shown in Figure 7 and Figure 8. The magnification options are 2×, 3×, 4×, and 5×. Depending on the amount of magnification that is selected, test administrators may need to scroll to the right and down to access the entire screen and find the **NEXT** button. Test administrators must keep in mind that scrolling may negatively affect the student's ability to access the assessment. Using an interactive whiteboard, a projector, or a magnification device may be a more appropriate option when a student needs a great deal of magnification.

Figure 7
Screenshot Featuring 2x Magnification
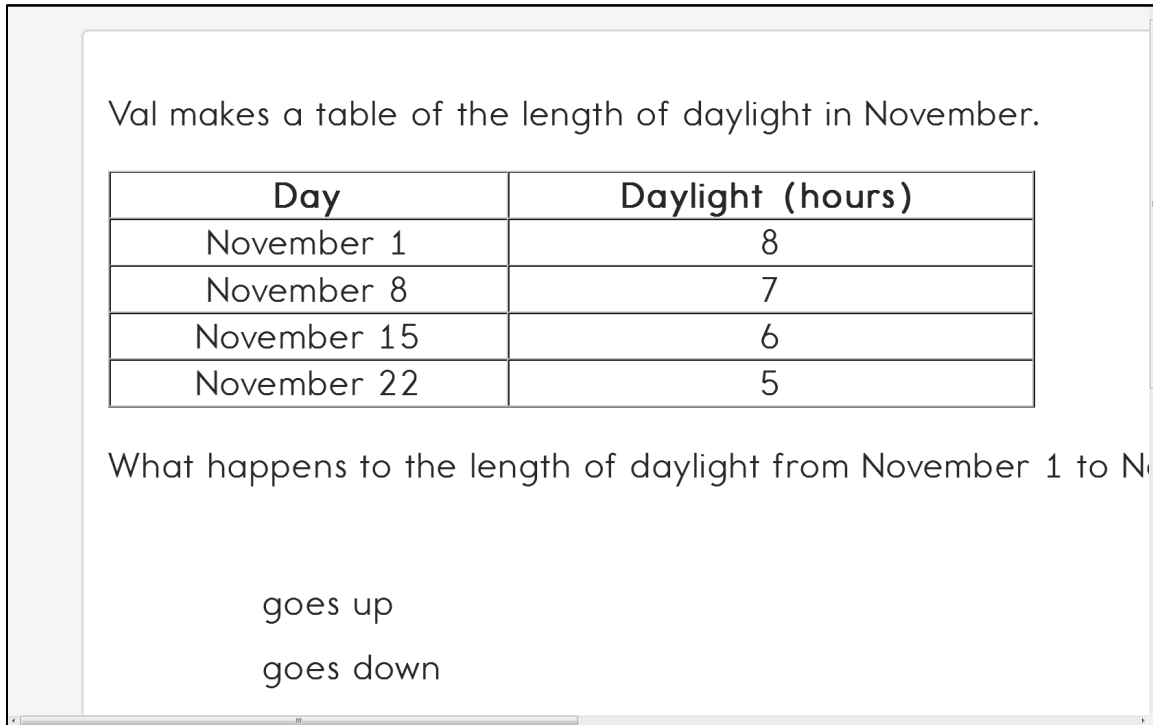

Val makes a table of the length of daylight in November.

Day	Daylight (hours)
November 1	8
November 8	7
November 15	6
November 22	5

What happens to the length of daylight from November 1 to November 22?

goes up

goes down

stays the same

Figure 8
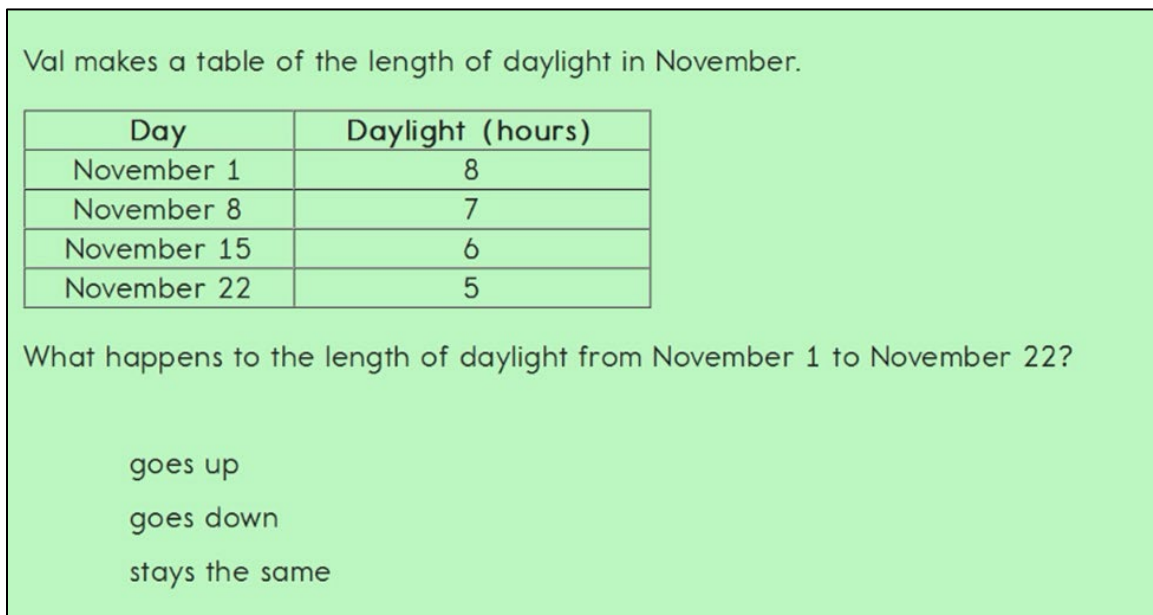*5x magnification Demonstrating Need for Users to Scroll to See Content*

Overlay Color

The background overlay color options are blue, gray, green, pink, and yellow. The default background is white. The font remains black, as shown in Figure 9.

Figure 9
Screenshot Featuring Overlay Color in Green

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. The text-only option is appropriate when the student has some vision and does not require reading aloud the physical layout and directional information.

The **READ** button is visible at the bottom of the screen upon opening the assessment, as shown in Figure 10.

Figure 10

Screenshot Featuring the READ Icon for Spoken Audio

After selecting the **READ** button, the Kite system reads the text aloud. As shown in Figure 11, Student Portal highlights the sentence being read in yellow. Different information is read aloud depending on which option is selected in the PNP Profile: text only, text and graphics, or nonvisual.

Figure 11

Screenshot of how Student Portal Highlights Text during Spoken Audio

Val makes a table of the length of daylight in November.

Day	Daylight (hours)
November 1	8
November 8	7
November 15	6
November 22	5

What happens to the length of daylight from November 1 to November 22?

goes up

goes down

stays the same

BACK ⇐

EXIT
DOES
NOT
SAVE

PAUSE

NEXT ⇒

Switch Use

Table 7 and Table 8 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 interact with the testlets in Student Portal.

Table 7
Single-Switch Use by Item Type

Item Type	Single-Switch System
Multiple choice Response options are a selection of text or pictures.	When Single Switch is selected, Student Portal scans through each response option and navigation button on the page based upon settings selected 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):** The number of seconds the response option is highlighted before the highlighting moves on to the next response option. **The Automatic Scan—Initial Delay:** 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:** The student initiates 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 item on each screen is scanned before the scanning cycle stops. The number can be 1–5 or infinity.
General information	In automatic scanning or manual override, the scanning stops after selecting a response option. The scanning cycle restarts from the beginning when the student presses the switch.

Table 8

Two-Switch Use by Item Type

Item Type	Two-Switch System
Multiple choice Response options are a selection of text or pictures.	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 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.
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 12.

Figure 12

Screenshot Featuring a Single-Switch and Two-Switch Example with a Highlighted BACK Option
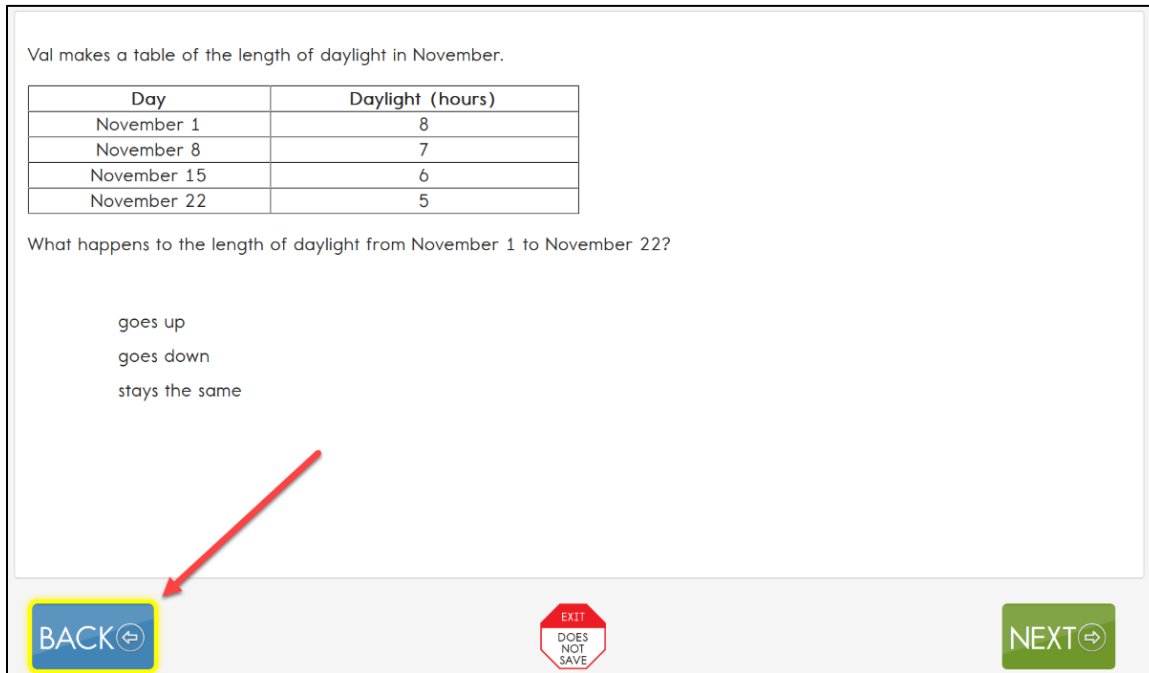
Figure 13 shows how the response options are also highlighted.

Figure 13

Screenshot Featuring a Highlighted Response Option

HINT: When using single-switch or two-switch scanning, do not choose yellow for overlay color in the PNP Profile. The text highlights in yellow as the response options are scanned. Therefore, overlay color in yellow makes the single-switch and two-switch scanning highlighting feature hidden to the student.

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

In addition to the supports listed in the Testing Information Page (TIP), test administrators may need the following materials:

- Appropriate assistive devices for the student (e.g., switches)
- Additional supports 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.

PREPARE FOR THE ASSESSMENTS

Help students prepare for the DLM alternate assessment by providing instruction aligned to the Essential Elements and reinforce vocabulary found in the Essential Elements.

In addition to the previously mentioned resources, the DLM professional staff 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 (30–45 minutes) and focuses on a single topic. Information about these modules is available under the Professional Development section of the [DLM website](#). Most of the modules are subject-specific and provide information and strategies to help test administrators instruct students.

Ten science professional development modules are especially designed for instructing students with the most complex needs who complete the DLM science assessments at the Initial and Precursor linkage levels. A list of those science modules follows:

- "DLM Science Standards Framework Part 1": This module is an introduction to the disciplinary core ideas, science and engineering practices, and crosscutting concepts of the DLM science framework and the relationship of this framework to A Framework for K-12 Science Education and the Next Generation Science Standards.
- "DLM Science Standards Framework Part 2": This module provides an overview of the DLM Essential Elements for science and the design of the DLM science testlets.
- "Instructional Strategies for Teaching DLM Science Part 1": This module introduces teaching science using an inquiry-based model, the 5E* model.
- "Instructional Strategies for Teaching DLM Science Part 2": This module provides guidance on the use of the 5E* model, strategies to employ in each of the 5E* model states, and connections between Universal Design for Learning and the 5E* model.
- "Instructional Strategies for Teaching DLM Science Part 3": This module provides guidance on DLM science resources to use while planning science instruction based on the 5E* model.
- "Science and Engineering Practices (SEP) Part 1": This module provides guidance on how to engage students in the science and engineering practice that is specified in an Essential Element.
- "Science and Engineering Practices (SEP) Part 2": This module provides guidance on how to make connections to the DLM ELA and mathematics Essential Elements through the science and engineering practices that are specified in the DLM science Essential Elements.
- "Science and Engineering Practices (SEP) #2: Developing and Using Models": This module's goal is to increase knowledge of how to develop and use models and to inspire future scientists through engaging activities. The module covers the types of models and their usefulness during instruction to support the module's focus. The module also explores models at different levels of complexity and includes example instructional practices.
- "Science and Engineering Practices (SEP)#3: Planning and Carrying Out Investigations": This module focuses on carrying out investigations. The module provides an example activity to demonstrate ways that students can participate in an investigation. The module also includes guidance for teaching the SEP and adjusting the level of complexity.

- "Science and Engineering Practices (SEP) #6: Constructing Explanations": This module focuses on teaching the constructing explanations component of SEP 6 through use of a writing framework. The module also includes guidance for teaching the SEP and framework through differing levels of complexity.
- *5E: Represents the five stages of a sequence for teaching and learning that was developed by the National Aeronautics and Space Administration (NASA). The 5 Es are: Engage, Explore, Explain, Elaborate, Evaluate.

Three additional modules are very helpful when teaching students with pre-intentional and presymbolic communication skills.
- "Beginning Communicators": This module describes symbolic and nonsymbolic forms of communication, the distinction between pre-intentional and presymbolic communicators, and additional sources of support for building communication skills.
- "DLM Core Vocabulary and Communication": This module 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 the use of AAC.
- "Symbols": This module is an overview of symbols to support communication and interaction. The module also describes the use of symbols and photographs in text.

STEP 6: EVALUATE THE ACCESSIBILITY SUPPORTS USED AFTER ASSESSMENTS

After the student completes all testlets during the assessment window, test administrators and IEP teams should evaluate the overall use of accessibility supports. Test administrators should become better informed and can 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 OF THE ACCESSIBILITY SUPPORTS PROVIDE TO THE STUDENT

This section addresses supports both in and outside of the Kite® system.
- Which accessibility supports did the student use during instruction and assessment?
- What were the results of classroom assignments and assessments when accessibility supports were used compared to when they were not used?
- If a student did not meet the expected level of performance, was the expectation not met because the student did not have access to necessary instruction, not receive the appropriate supports, or used inappropriate accessibility supports?
- As perceived by the student, how well did the accessibility supports work?
- Which combinations of accessibility supports seemed to be effective?
- What difficulties, if any, were encountered in using the accessibility supports?
- As perceived by test administrators and other observers, how well did the accessibility supports work?
- Did the student receive the accessibility supports documented in their IEP?
- Are the selected accessibility supports appropriate for the student to continue using or should any be discontinued?

REFERENCES

Every Student Succeeds Act of 2015, Pub. L. No. 114-95 § 114 Stat. 1177 (2015–2016).

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GLOSSARY

Table 9 compiles relevant definitions and acronyms for the Dynamic Learning Maps® (DLM®) alternate assessment.

Table 9

DLM Alternate Assessment Glossary

Term	Definition
display enhancements	Options that change the testlet appearance on the student's device screen, including magnification, overlay color, invert color choice, and contrast color.
Educator Portal	Educator Portal is a secure, web-based application designed to aid teachers and administrative users in the administration of assessments, including student enrollment and monitoring or tracking results. Users can access Educator Portal using any supported browser via https://educator.kiteaai.org/. For information on working within Educator Portal, access 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, recalls prior knowledge or experience, or introduces the concept to be addressed. The engagement activity provides context for the items. Some science testlets at the upper linkage levels include a short video without audio as the engagement activity.
Essential Elements	Essential Elements are the content standards used for assessment for students with the most significant cognitive disabilities. Essential Elements are reduced in depth, breadth, and the level of complexity, and they build a bridge from the content in the grade-level standards to academic expectations. They are specific statements of knowledge and skills linked to the National Research Council's Framework for K-12.

Term	Definition
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. Data gathered from the core questions and the science questions are used to **recommend** the linkage level for each science Essential Element in the optional instructionally embedded assessment window. The same data is used to assign the linkage level to the first science Essential Element being tested in the spring assessment window.
Instruction and Assessment Planner	A part of Educator Portal where test administrators perform assessment functions for a student during the optional instructionally embedded assessment window. Functions include selecting an Essential Element and linkage level for instruction and subsequent testing. Most assessment data about the student is provided in the Instruction and Assessment Planner during this assessment window, including a mastery of a tested Essential Element at a linkage level. Score results are not used for the end-of-year Individual Student Score Reports.
instructionally embedded assessment	Occurs during the optional instructionally embedded assessment window in the fall and winter months where instruction and assessment are closely integrated with assessment functions being performed throughout instruction. Functions include educator-selected Essential Elements and linkage levels for instruction and subsequent testing. Most assessment data about the student is provided in the Instruction and Assessment Planner during this assessment window, including a mastery indication for a tested Essential Element at a linkage level. Although a mastery indication is provided, score results do not impact end-of-year Individual Student Score Reports.

Term	Definition
Kite® Student Portal	Student Portal is a secure testing platform used by students to take testlets. Once launched, Student Portal prevents students from accessing unauthorized webpages or applications during testing. All students taking the DLM alternate assessment will have unique accounts in Kite Student Portal. Test administrators do not have accounts in Student Portal. In addition to operational testing in the Student Portal, practice activities and released testlets can be administered using Student Portal. The login credentials for the practice activities and released testlets are unique to each one. Access the TEST ADMINISTRATION MANUAL for more information about Student Portal.
linkage level	An incremental level of complexity toward the learning target where an assessment was developed for the Essential Element. Science has three linkage levels: Initial, Precursor, and Target. Linkage levels for an Essential Element are always related directly to grade-level content standards but at different levels of cognitive complexity. The Target level is most closely related to the grade-level content standard.
materials	Any objects, manipulatives, and tools used during an assessment. Materials Collection lists are specific to a window for each subject. The lists are found on each state's DLM website under Educator Resources.
Personal Learning Profile	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 for each testlet. The PNP Profile includes information the system needs to make the student's user interface in Student Portal 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.

Term	Definition
plan	The test administrator creates a plan in the Instruction and Assessment Planner in Educator Portal only during the optional instructionally embedded assessment window. A plan includes an Essential Element, a linkage level, and a testlet for science.
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 beginning part of the item that presents a problem to solve or an item to which a student responds. 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 a student chooses.
tactile graphic	Tactile graphics are a means of conveying non-textual information to students who are blind or have visual impairments. Tactile graphics may include tactile representation of pictures, maps, graphs, diagrams, and other images. The DLM alternate assessment does not provide tactile graphics with the testlets.
testlet	A short assessment that begins with an engagement activity and includes three to five items. 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. All students receive nine testlets. In states delivering end-of-instruction biology in high school, students receive 10 testlets. Each testlet assesses only one Essential Element. Testlets are delivered one at a time, are adaptive, and are either teacher-administered or computer-delivered. More specific information is found in the Test Administration Manual.

Term	Definition
Testlet Information Page (TIP)	A PDF that is unique to each testlet and provides specific information to guide the test administrator in delivering the assessment. The Testlet Information Page (TIP) for each testlet lists the materials needed or describes the attributes of the materials needed specific to a testlet. The materials listed in the TIP are especially needed for the teacher-administered testlets at the Initial linkage level for science. The TIP at the Initial level will have picture-response cards that must be printed before testing. Best practice is to have them printed in color. Computer-delivered testlets require fewer materials than the teacher administered testlets.

APPENDIX A: OTHER SUPPORTS

Table 10 describes options available under the Other Supports tab in the Personal Needs and Preferences (PNP) Profile in Educator Portal.

Table 10
Additional Supports in the Personal Needs and Preferences Profile

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 unavailable, a standard form will be delivered.
Two-switch system	Student Portal automatically supports two-switch step scanning with a switch interface in which one switch is set up to emulate the Tab key to move between choices and the other switch is set up to emulate the Enter key to select the choice when highlighted. 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, counters, interlocking blocks, linking letters, unit cubes).
Calculator	Students may use a calculator unless the TIP indicates a calculator may not be used.
Human read aloud	Test administrators may always read the assessment aloud to students. When a student receives an alternate form-visual impairment form testlet, its TIP will include alternate text as additional pages after the main TIP for the test administrator to read aloud to the student. The alternate text includes descriptions of graphics and of images.

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 language learners and whose best expressive 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 enters responses for student	If students are unable to select response options themselves, they may indicate their responses through normal response types and 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 record their responses independently and accurately in Student Portal.
Partner-assisted scanning	Partner-assisted scanning 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 partner-assisted scanning 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 WORKSHEETS FOR TEST ADMINISTRATORS AND IEP TEAMS

States may use these worksheets (Table 11, Table 12, and Table 13) 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 Kite® system immediately, as do individual manipulatives and calculator use from Category 2. However, four of the Category 2 supports require 24 hours to update: Alternate Form-Visual Impairment, braille, single-switch, and two-switch systems.

Table 11

Accessibility Worksheet: Category 1—Settings in the PNP Profile that Activate Supports within Student Portal

Accessibility support	Setting selected for STUDENT NAME	Notes and evaluation
Contrast color		
Invert color choice		
Magnification		
Overlay color		
Spoken audio: Text only		
Spoken audio: Text and graphics		
Spoken audio: Nonvisual		

Table 12

Accessibility Worksheet: Category 2—Settings in the PNP Profile that Require Supports or Materials in Addition to Those within Student Portal

Accessibility support	Setting selected for STUDENT NAME	Notes and evaluation
Alternate form-visual impairment		
Calculator (refer to TIP)		
Individualized manipulatives		
Single-switch system (Access Profile enabled)		
Two-switch system		
Uncontracted braille: EBAE		
Uncontracted braille: UEB		

Table 13

Accessibility Worksheet: Category 3—Settings in the PNP Profile that Require Supports Provided by the Test Administrator Outside of Student Portal

Accessibility support	Setting selected for STUDENT NAME	Notes and evaluation
Human read aloud		
Language translation of text		
Partner-assisted scanning		
Sign interpretation of text		
Test administrator enters student responses		

STATE APPENDICES

DOCUMENT HISTORY

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

Date	Section Name/ Summary of Changes	Starting Page
06/30/2023	Table 1: Additional Supports for Users	3
06/30/2023	Update about the First Contact Survey	12
06/30/2023	New Section: Supports that Do Not Work Well Together	20
06/30/2023	New Section: Using Practice Activities and Released Testlets	20
06/30/2023	Additional Clarification for Supports not Allowed	24