



Guide to Practice Activities and Released Testlets: English Language Arts, Mathematics, and Science

Introduction

The Dynamic Learning Maps® (DLM®) Alternate Assessment System provides educators and students with the opportunity to prepare for assessments by using practice activities and released testlets.

- **Practice activities** are designed to familiarize users with the way testlets look in the Kite® system. One activity is for educators and the other is for students.
- **Released testlets** are similar to the real DLM testlets in content and format. A released testlet is a publicly available sample DLM assessment. Students and educators can use released testlets as examples or opportunities for practice. Released testlets are developed using the same standards and methods used to develop testlets for the DLM operational assessments. New released testlets are added periodically.

Access practice activities and released testlets through Kite Student Portal in the practice section. Use login information provided in this guide to complete both types of activities as many times as desired.

HINT: Some released testlets are available as PDFs on the DLM website at the [Released Testlets](#) page. Kite Student Portal does not need to be installed on a computer to access these PDFs.

Users who have questions or problems accessing the practice activities and released testlets should contact their assessment coordinator or technology personnel.

Demo Student Accounts for Practice Activities and Released Testlets

Practice activities and released testlets are only available through demo student accounts. The demo student accounts listed in Table 1 are enrolled in all available practice activities and released testlets. The practice activities and released testlets have certain Personal Needs and Preferences (PNP) Profile settings turned on depending on the account, as indicated in Table 1.

Table 1

Demo Student Accounts for Practice Activities and Released Testlets

Name	Password	PNP Profile supports turned on
demo.sue29	wall3	None*
demo.sue28	sand3	Spoken audio: voice source = synthetic, read at start = false, spoken preference = text and graphics, audio for directions only = false Contrast color: green text on white background
demo.sue30	swept	Single-switch: scan speed = 4 seconds, auto scan = manual override, auto repeat scan frequency = infinity**
demo.sue31	topic	2× magnification
demo.sue33	void7	4× magnification and reverse contrast
demo.sue34	nine7	Color overlay (green)
demo.sue35	jar71	Single-switch: scan speed = 5 seconds, initial delay = 5 seconds, auto repeat scan frequency = 2**
demo.sue36	stop3	Spoken audio: voice source = synthetic, read at start = false, spoken preference = nonvisual, audio for directions only = false
demo.sue37	after	5× magnification

*Demo student accounts are enrolled in English language arts reading, mathematics, science, and practice activities. demo.sue29 can also access English language arts writing.

****No special settings are required for two-switch users. Use **Tab** to navigate and **Enter** to select. Two-switch users may use any of the demo logins except demo.sue30 and demo.sue35 because those two logins are specifically for single-switch scanning users.**

The ACCESSIBILITY MANUAL describes the PNP Profile settings in detail.

Accessing Practice Activities and Released Testlets

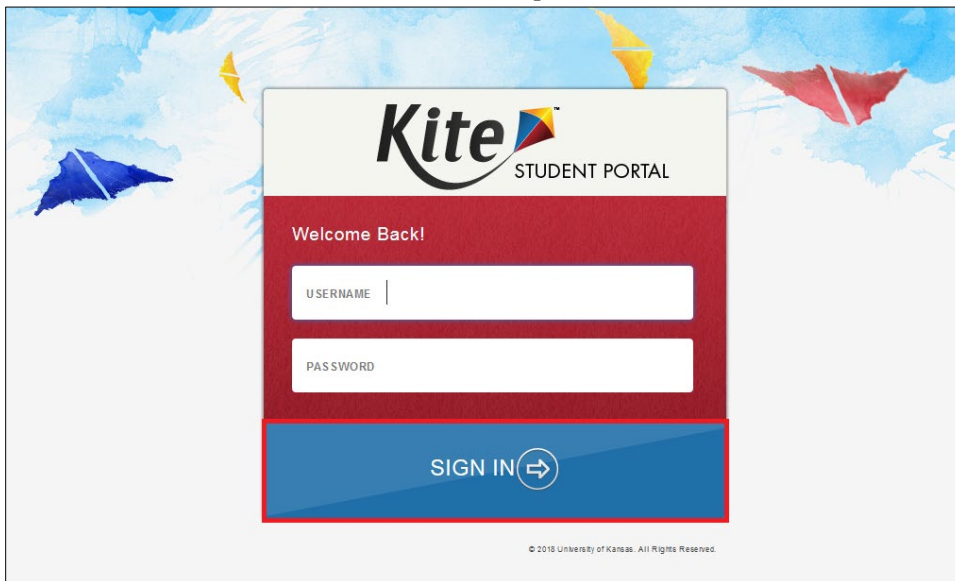
HINT: Kite Student Portal must be installed before you can access practice activities or released testlets. Download information is available on the [Kite Suite](#) page of the DLM website.

To access practice activities and released testlets, follow these steps:

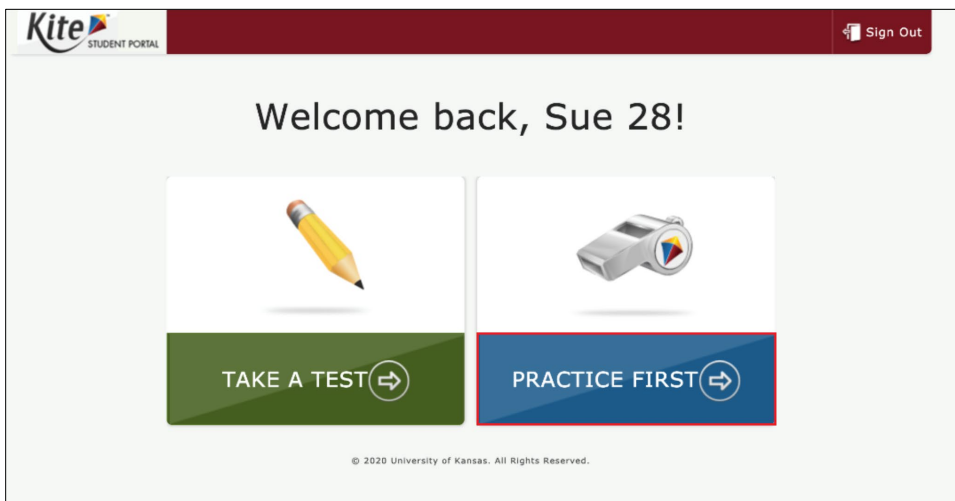
1. Select the **Kite Student Portal** icon on the testing device.



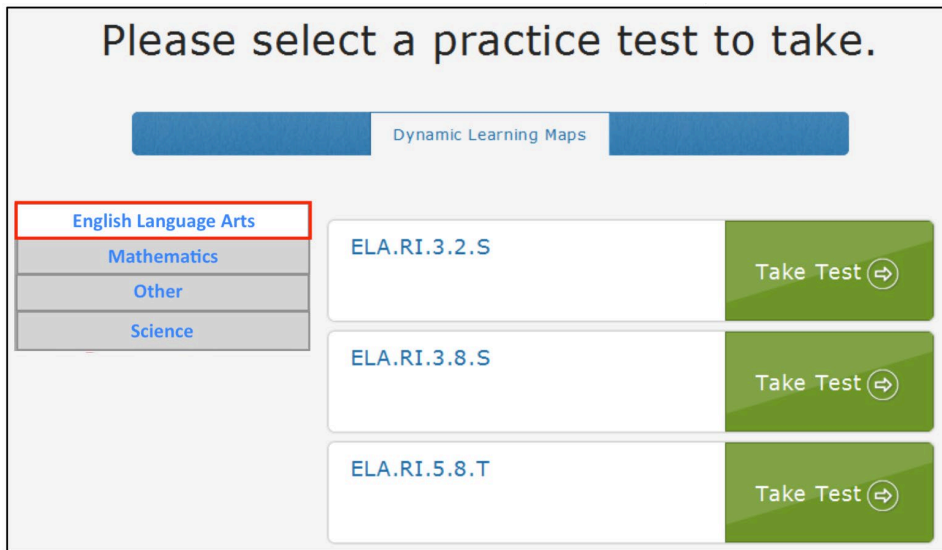
2. Enter the demo student username and password. Select **SIGN IN**.

The login screen for the Kite Student Portal. It features a white background with a blue sky and kites. The Kite logo is at the top left. Below it, the text "STUDENT PORTAL" is displayed. A red banner says "Welcome Back!". There are two input fields: "USERNAME" and "PASSWORD". A blue button with "SIGN IN" and a right-pointing arrow is at the bottom. A small copyright notice "© 2018 University of Kansas. All Rights Reserved." is at the bottom right.

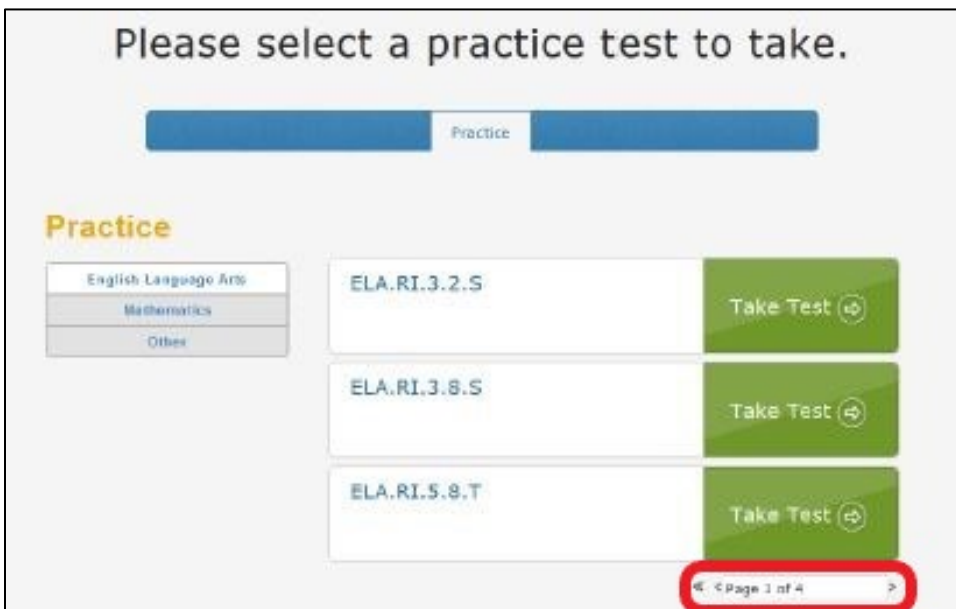
3. Select **PRACTICE FIRST**.

The home screen of the Kite Student Portal. It has a dark red header with the Kite logo and "STUDENT PORTAL" on the left, and a "Sign Out" button on the right. The main content area is white and says "Welcome back, Sue 28!". There are two large buttons: a green one with a pencil icon and "TAKE A TEST" with a right-pointing arrow, and a blue one with a camera icon and "PRACTICE FIRST" with a right-pointing arrow. A small copyright notice "© 2020 University of Kansas. All Rights Reserved." is at the bottom center.

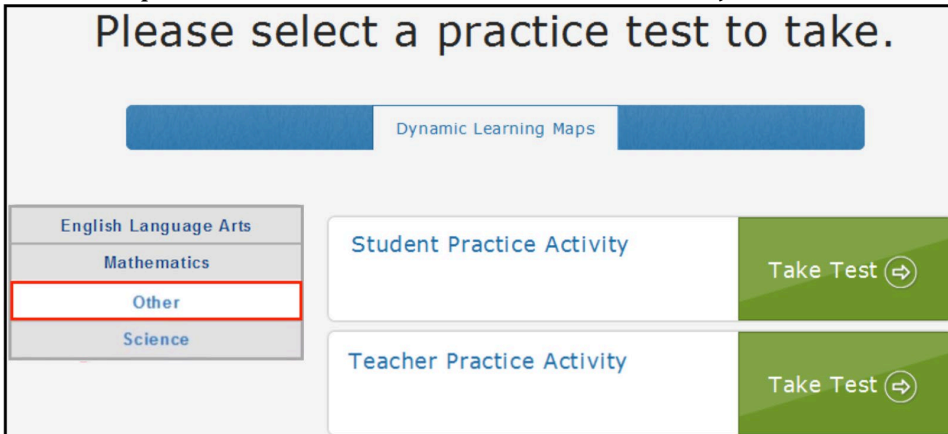
1. To access released testlets, select the appropriate subject and scroll to the desired testlet.



2. Use the page navigation buttons at the bottom of the screen to see more available testlets in Kite Student Portal.



3. To access practice activities, select **Other** for the subject area.



4. Select **Take Test** next to the desired released testlet or practice activity.



5. Select **BEGIN**.
6. Continue with the testlet and navigate with the **BACK** and **NEXT** buttons. To stop in the middle of a testlet, select **EXIT DOES NOT SAVE**.



7. To try a different practice activity or released testlet, either complete the current testlet or select **EXIT DOES NOT SAVE** to return to the welcome screen. To try a different demo student credentials, log out and log back in with the different username and password.

Practice Activities

Teacher Practice Activity

The teacher practice activity is a tutorial about testlets that are administered directly by the educator. Teacher-administered testlets are typically for students with presymbolic communication who cannot interact directly with the computer. These testlets are at the Initial Precursor linkage level in English language arts and mathematics, and typically at the Initial linkage level for science. Some mathematics testlets at higher linkage levels are also teacher-administered when the content is difficult to assess on the computer. In this type of testlet, the educator reads the instructions aloud on the testlet screens and follows them. The educator enters the student's responses to activities or exchanges that occur outside the system into Kite Student Portal. All writing testlets for all linkage levels at all grade levels are also teacher-administered.

Student Practice Activity

The student practice activity is a tutorial on testlets that are administered directly to the student. Computer-delivered testlets are used when the content can be assessed directly by computer, **and** the student can interact with the system directly and select their own responses, using assistive devices or other supports as needed.

Testlets at the Distal Precursor, Proximal Precursor, Target, and Successor linkage levels in English language arts and mathematics are typically computer-delivered. For science, testlets at the Precursor and Target linkage levels are typically computer-delivered.

Students may navigate using a mouse, Tab and Enter on a keyboard, or switches. If the student can engage with the content but cannot advance the screens or input responses independently, the educator may navigate the screens and record the student's responses on their behalf. More information about allowable practices is provided in the TEST ADMINISTRATION MANUAL.

There are several types of items in the student practice activity:

- **Multiple choice:** the student selects one or more responses.
- **Sorting:** the student selects and moves objects from one place to another.
 - Some of these items require the student to select the object and the destination, while others require students to drag and drop the object. Students who use switches may need help navigating these items.
- **Matching:** the student identifies how pairs of items are related to one another.

Students may go forward and backward within a testlet as much as needed.

Released Testlets for English Language Arts, Mathematics, and Science

A released testlet is a publicly available sample DLM assessment. Released testlets can be used by students and educators as examples or opportunities for practice. Released testlets are developed using the same standards and methods used to develop testlets for the DLM operational assessments. More detailed information on each released testlet is available starting on page 8.

Remember that testlets for English language arts and mathematics contain items that align to nodes at the designated linkage level. The linkage levels in English language arts and mathematics are

- Initial Precursor (IP)
- Distal Precursor (DP)
- Proximal Precursor (PP)
- Target (T)
- Successor (S)

The linkage levels for science are

- Precursor (P)
- Initial (I)
- Target (T)

In Student Portal, released testlets are labeled by subject, grade, Essential Element, and linkage level (Figure 1).

Figure 1. Screenshot from Kite Student Portal that demonstrates a released testlet name.



Table 2 describes the labels from the previous image.

Table 2

Definitions Behind a Released Testlet Name

Subject	Grade	Section and level codes	Linkage level
ELA RI = English language arts, Reading Informational text	3	2 = Identify details in a text	S = Successor

Each released testlet is at a grade level and a linkage level. Select a testlet at the grade level and linkage level appropriate for your student.

For more information on the Essential Elements, linkage levels, and nodes used in assessments, go to the [Educator Resource Page](#) on the DLM website.

Released Testlets

Available Released Testlets

The following section includes tables with information about each released testlet available in Kite Student Portal for English language arts, mathematics, and science.

Table 3 provides a description of each column heading in a sample English Language Arts—Reading table. The mathematics and science tables are similar to the English language arts table.

Table 3

Description of Each Column Heading in a Sample English Language Arts—Reading Table

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.3.2 IP	RI.3.2: Identify details in a text	Initial Precursor	The student can demonstrate an understanding that absent objects still exist despite not being visible by searching for objects that are hidden or not visible.	Reading for Information Familiar Text <i>Fun on the Bus</i>

Testlet Name

This column contains the name of the released testlet in Kite Student Portal. Each testlet is named after the subject area, Essential Element, grade level, and linkage level.

Essential Element

This column contains the Essential Element.

Linkage Level

This column contains the linkage level of the released testlet.

Linkage Level Description

This column describes what knowledge, skills, and understandings will be included in the released testlet.

Familiar or Unfamiliar Text

This column is only in the English Language Arts—Reading table and contains up to three pieces of information for the released testlet. The first piece of information in this column is the type of text: Reading Literature (RL) or Reading Informational (RI).

The second piece of information is whether the text used in the testlet is familiar or unfamiliar to your student.

If the released testlet uses Familiar Text, then the third piece of information is a link to the actual text. If the released testlet uses Unfamiliar Text, which is new text unfamiliar to the student, then there is no link.

English Language Arts Released Testlets

The English language arts released testlets tables are arranged by grade (Table 4–

Table 19). Each grade has two tables, one for reading testlets (see Table 4) and another for writing testlets (see Table 5).

Each grade has two forms of writing testlets: Emergent Writing and Conventional Writing. Emergent writing testlets are for students who may not use traditional means to write such as pencil and paper.

Table 4

Grade 3 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.L.3.5c IP	L.3.5c: Identify words that describe personal emotional states.	Initial Precursor	The student can identify feeling states in self by responding to questions about their emotions (e.g., are you happy? Are you sad?).	Reading for Information Familiar Text <i>The New Puppy</i>
ELA.RI.3.2 IP	RI.3.2: Identify details in a text.	Initial Precursor	The student can demonstrate an understanding that absent objects still exist despite not being visible by searching for objects that are hidden or not visible.	Reading for Information Familiar Text <i>Fun on the Bus</i>

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.3.8 IP	RI.3.8: Identify two related points the author makes in an informational text.	Initial Precursor	The student can react to a change in an object or a situation through eye gaze, vocalization, or otherwise expressing interest.	Reading for Information Familiar Text <i>What do Cats Do?</i>
ELA.RL.3.5 DP	RL.3.5: Determine the beginning, middle, and end of a familiar story with a logical order.	Distal Precursor	During a shared reading of a text the student is able to identify, indicate, and distinguish between the words and pictures on a page in a text, braille, or tactile object/graphic.	Reading Literature Familiar Text <i>Henry and Mudge Are Happy</i>
ELA.RI.3.3 PP	RI.3.3: Order two events from a text as "first" and "next."	Proximal Precursor	The student can identify events that occur in a familiar informational text.	Reading for Information Familiar Text <i>Exercising your Dog</i>

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.3.8 S	RI.3.8: Identify two related points the author makes in an informational text.	Successor	The student can identify reasons an author includes in a text (i.e., details) that support the points of an informational text.	Reading for Information Unfamiliar Text N/A

Table 5

Grade 3 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 3	ELA.EE.W.3.2.a: Select a topic and write about it including one fact or detail. ELA.EE.W.3.4: With guidance and support, produce writing that expresses more than one idea.	Initial Precursor Distal Precursor	Emergent Writing EW.3.2 EW.3.4
Conventional Writing Grade 3	ELA.EE.W.3.2.a: Select a topic and write about it including one fact or detail. ELA.EE.W.3.4: With guidance and support, produce writing that expresses more than one idea.	Proximal Precursor Target Successor	Conventional Writing CW.3 CW.3.4

Table 6

Grade 4 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.4.2 IP	RL.4.2: Identify the theme or central idea of a familiar story, drama or poem.	Initial Precursor	When presented with familiar and unfamiliar representations of people, objects, places, and events, the student can correctly identify the familiar representations.	Reading Literature Familiar Text <i>Peter Wins a Prize</i>
ELA.RI.4.8 DP	RI.4.8: Identify one or more reasons supporting a specific point in an informational text.	Distal Precursor	The student can identify concrete details in a familiar informational text, such as people, events, or ideas.	Reading for Information Familiar Text <i>Trains</i>
ELA.RI.4.1 PP	RI.4.1: Identify explicit details in an informational text.	Proximal Precursor	After hearing or reading a beginner-level informational text, the student can identify a concrete detail in the text.	Reading for Information Unfamiliar Text N/A
ELA.RI.4.4 T	RI.4.4: Determine the meaning of words in text.	Target	When given an unfamiliar word that has only one meaning, the student can use textual and contextual clues in order to determine the word's meaning.	Reading for Information Unfamiliar Text N/A

Table 7

Grade 4 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 4	EE.L.4.2.a: Capitalize the first word in a sentence. EE.L.4.2.d: Spell words phonetically, drawing on knowledge of letter-sound relationships, and/or common spelling patterns. EE.W.4.2.b: List words, facts, or details related to the topic.	Initial Precursor Distal Precursor	Emergent Writing L.4.2.a EE.L.4.2.d EE.W.4.2.b
Conventional Writing Grade 4	EE.L.4.2.a: Capitalize the first word in a sentence. EE.L.4.2.d: Spell words phonetically, drawing on knowledge of letter-sound relationships, and/or common spelling patterns. EE.W.4.2.b: List words, facts, or details related to the topic.	Proximal Precursor Target Successor	Conventional Writing EE.L.4.2.a EE.L.4.2.d EE.W.4.2.b

Table 8

Grade 5 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.5.6 IP	RL.5.6: Determine the point of view of the narrator.	Initial Precursor	When presented with familiar and unfamiliar representations of people, objects, places, and events, the student can correctly identify the familiar representations.	Reading Literature Familiar Text Visiting Friends

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.5.9 IP	RL.5.9: Compare stories, myths, or texts with similar topics or themes.	Initial Precursor	The student can demonstrate an understanding of object names by correctly identifying an object or person.	Reading Literature Familiar Text <i>Grandfather Helps His Neighbors</i>
ELA.RL.5.1 DP	RL.5.1: Identify words in the text to answer a question about explicit information.	Distal Precursor	The student can identify major observable events that occur in a familiar story.	Reading Literature Familiar Text <i>Mary and Colin</i>
ELA.RI.5.5 DP	RI.5.5: Determine if a text tells about events, gives directions, or provides information on a topic.	Distal Precursor	When provided with illustrations that are related and unrelated to a familiar text, the student can identify the illustrations that relate to aspects of the familiar text such as people, places, things, and ideas.	Reading for Information Familiar Text <i>Heidi Goes Home</i>
ELA.RL.5.9 DP	RL.5.9: Compare stories, myths, or texts with similar topics or themes.	Distal Precursor	The student can identify an object by its descriptor or provide a descriptor for the object.	Reading Literature Familiar Text <i>Grandfather Helps His Neighbors</i>

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.5.9 PP	RL.5.9: Compare stories, myths, or texts with similar topics or themes.	Proximal Precursor	The student can identify a character's actions in a familiar story and recall the consequences of those actions.	Reading Literature Familiar Text <i>Gifts from Grandma</i>
ELA.RI.5.8 PP	RI.5.8: Identify the relationship between a specific point and supporting reasons in an informational text.	Proximal Precursor	The student can identify the points that are made by an author of an informational text and identify points that are related.	Reading for Information Familiar Text <i>Goats</i>
ELA.RI.5.8 T	RI.5.8: Identify the relationship between a specific point and supporting reasons in an informational text.	Target	The student can identify how specific details of a text help the author make a particular point/claim and can match details to the corresponding point/claim.	Reading for Information Unfamiliar Text N/A

Table 9

Grade 5 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 5	EE.W.5.2.b: Provide facts, details, or other information related to the topic. EE.W.5.2.a: Introduce a topic and write to convey information about it including visual, tactual, or multimedia information as appropriate.	Initial Precursor Distal Precursor	Emergent Writing <u>EE.W.5.2.b</u> <u>EE.W.5.2.a</u>
Conventional Writing Grade 5	EE.W.5.2.a: Introduce a topic and write to convey information about it including visual, tactual, or multimedia. EE.W.5.2.b: Provide facts, details, or other information related to the topic.	Proximal Precursor Target Successor	Conventional Writing <u>EE.W.5.2.a</u> <u>EE.W.5.2.b</u>

Table 10

Grade 6 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.L.6.5b IP	L.6.5b: Demonstrate understanding of words by identifying other words with similar and different meanings.	Initial Precursor	The student can use their knowledge of a category to draw conclusions about the characteristics of objects that are part of that category.	Language Familiar Text <u>Visiting an Island</u>

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.6.2 IP	RL.6.2: Identify details in a text that are related to the theme or central idea.	Initial Precursor	When provided with a picture of an object, or other symbolic representation of that object, the student can correctly match the picture with the real object.	Reading Literature Familiar Text Visiting Diana
ELA.RL.6.3 IP	RL.6.3: Can identify how a character responds to a challenge in story.	Initial Precursor	When the student is presented with familiar objects and given a prompt to complete an action, the student is able to complete the action using the appropriate object.	Reading Literature Familiar Text Visiting Diana
ELA.RL.6.2 DP	RL.6.2: Identify details in a text that are related to the theme or central idea.	Distal Precursor	The student can identify concrete details in a familiar story, including characters and objects.	Reading Literature Familiar Text Anne

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.6.4 DP	RL.6.4: Determine how word choice changes the meaning in a text.	Distal Precursor	The student can identify differences in meaning when provided with opposite-meaning words.	Reading Literature Familiar Text <i>Visiting Diana</i>
ELA.RI.6.6 DP	RI.6.6: Identify words or phrases in the text that describe or show the author's point of view.	Distal Precursor	The student can identify concrete details, such as individuals, events, or ideas in a familiar informational text.	Reading for Information Familiar Text <i>Libraries</i>
ELA.RI.6.8 DP	RI.6.8: Distinguish claims in a text supported by reason.	Distal Precursor	After reading a paragraph in an informational text, the student can see that some details are more relevant to the overall topic of the text than others.	Reading for Information Unfamiliar Text N/A

Table 11

Grade 6 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 6	<p>EE.L.6.2.b: Spell untaught words phonetically, drawing on letter-sound relationships and common spelling patterns.</p> <p>EE.W.6.2.a: Introduce a topic and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.6.2.b: Provide facts, details, or other information related to the topic.</p>	<p>Initial Precursor</p> <p>Distal Precursor</p>	<p>Emergent Writing</p> <p>EE.L.6.2.b</p> <p>EE.W.6.2.a</p> <p>EE.W.6.2.b</p>
Conventional Writing Grade 6	<p>EE.L.6.2.b: Spell untaught words phonetically, drawing on letter-sound relationships and common spelling patterns.</p> <p>EE.W.6.2.a: Introduce a topic and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.6.2.b: Provide facts, details, or other information related to the topic.</p>	<p>Proximal Precursor</p> <p>Target</p> <p>Successor</p>	<p>Conventional Writing</p> <p>EE.L.6.2.b</p> <p>EE.W.6.2.a</p> <p>EE.W.6.2.b</p>

Table 12

Grade 7 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.7.8 IP	RI.7.8: Determine how a claim or reason fits into the overall structure of an informational text.	Initial Precursor	After reading a story with a repeated line in the text, the student is able to say the repeated line during a second reading of the text.	Reading for Information Familiar Text <i>The Fair</i>
ELA.RL.7.1 DP	RL.7.1: Analyze text to identify where information is explicitly stated and where inferences must be drawn.	Distal Precursor	The student can identify the major characters, setting, and major events in a story without the use of additional information from pictures.	Reading Literature Familiar Text <i>The Golden Apple</i>
ELA.RI.7.3 DP	RI.7.3: Determine how two individuals, events, or ideas in a text are related.	Distal Precursor	After reading an informational text, the student is able to distinguish the author's most important points.	Reading for Information Unfamiliar Text N/A
ELA.RI.7.4 T	RI.7.4: Determine how words or phrases are used to persuade or inform a text.	Target	The student recognizes that word choices can be used to persuade or inform the reader. After reading or hearing an informational text, the student can determine how word choice is used to persuade or inform the reader.	Reading for Information Unfamiliar Text N/A

Table 13

Grade 7 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 7	<p>EE.L.7.2.a: Use end punctuation when writing a sentence or question.</p> <p>EE.L.7.2.b: Spell words phonetically, drawing on knowledge of letter-sound relationships and/or common spelling patterns.</p> <p>EE.W.7.2.a: Introduce a topic and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.7.2.b: Provide facts, details, or other information related to the topic.</p> <p>EE.W.7.2.d: Select domain-specific vocabulary to use in writing about the topic.</p>	Initial Precursor Distal Precursor	<p>Emergent Writing</p> <p>EE.L.7.2.a</p> <p>EE.L.7.2.b</p> <p>EE.W.7.2.a</p> <p>EE.W.7.2.b</p> <p>EE.W.7.2.d</p>
Conventional Writing Grade 7	<p>EE.L.7.2.a: Use end punctuation when writing a sentence or question.</p> <p>EE.L.7.2.b: Spell words phonetically, drawing on knowledge of letter-sound relationships and/or common spelling patterns.</p> <p>EE.W.7.2.a: Introduce a topic and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.7.2.b: Provide facts, details, or other information related to the topic.</p> <p>EE.W.7.2.d: Select domain-specific vocabulary to use in writing about the topic.</p>	Proximal Precursor Target Successor	<p>Conventional Writing</p> <p>EE.L.7.2.a</p> <p>EE.L.7.2.b</p> <p>EE.W.7.2.a</p> <p>EE.W.7.2.b</p> <p>EE.W.7.2.d</p>

Table 14

Grade 8 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.8.3 IP	RL.8.3: Identify which incidents in a story or drama lead to subsequent action.	Initial Precursor	The student can demonstrate understanding of an object's function through demonstration, pointing to pictures, or verbally explaining the function.	Reading Literature Familiar Text Return to the Island
ELA.RI.8.1 DP	RI.8.1: Cite text to support inferences from informational text.	Distal Precursor	The student can identify concrete details, such as individuals, events, or ideas, in a familiar informational text.	Reading for Information Familiar Text Animals in Alaska
ELA.RL.8.5 PP	RL.8.5: Compare and contrast the structure of two or more texts.	Proximal Precursor	After reading two texts (story, poem, drama), the student can identify similarities between the structures such as story elements, text features, and organizational patterns.	Reading Literature Unfamiliar Text N/A
ELA.RI.8.8 T	RI.8.8: Determine the argument made by an author in an informational text.	Target	After reading an informational text that states an explicit argument, the student is able to identify the statement from the text that reflects the main argument.	Reading for Information Unfamiliar Text N/A

Table 15

Grade 8 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 8	<p>EE.W.8.2.a: Introduce a topic clearly and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.8.2.b: Write one or more facts or details related to the topic.</p> <p>EE.W.8.2.c: Write complete thoughts as appropriate.</p> <p>EE.W.8.2.d: Use domain specific vocabulary related to the topic.</p> <p>EE.W.8.2.f: Provide a closing.</p>	Initial Precursor Distal Precursor	<p>Emergent Writing</p> <p>EE.W.8.2.a</p> <p>EE.W.8.2.b</p> <p>EE.W.8.2.c</p> <p>EE.W.8.2.d</p> <p>EE.W.8.2.f</p>
Conventional Writing Grade 8	<p>EE.W.8.2.a: Introduce a topic clearly and write to convey ideas and information about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.8.2.b: Write one or more facts or details related to the topic.</p> <p>EE.W.8.2.c: Write complete thoughts as appropriate.</p> <p>EE.W.8.2.d: Use domain specific vocabulary related to the topic.</p> <p>EE.W.8.2.f: Provide a closing.</p>	Proximal Precursor Target Successor	<p>Conventional Writing</p> <p>EE.W.8.2.a</p> <p>EE.W.8.2.b</p> <p>EE.W.8.2.c</p> <p>EE.W.8.2.d</p> <p>EE.W.8.2.f</p>

Table 16

Grades 9 and 10 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.9-10.2 IP	RI.9-10.2: Determine the central idea of the text and select details to support it.	Initial Precursor	The student can identify concrete details, such as individuals, events, or ideas in a familiar informational text.	Reading for Information Familiar Text <i>Table Manners</i>
ELA.RI.9-10.4 IP	RI.9-10.4: Determine the meaning of words and phrases as they are used in text, including common idioms, analogies, and figures of speech.	Initial Precursor	The student can identify relevant words for describing familiar people, places, things, or events.	Reading for Information Familiar Text <i>What Teachers Do</i>
ELA.RI.9-10.8 IP	RI.9-10.8: Determine how the specific claims support the argument made in an informational text.	Initial Precursor	During a shared reading activity, the student can recognize that another person can have a perspective that is different from their own.	Reading for Information Familiar Text <i>At the Theater</i>

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RL.9-10.4 T	RL.9-10.4: Determine the meaning of words and phrases as they are used in a text, including idioms, analogies, and figures of speech.	Target	When provided with a story to read or hear, the student can determine the meaning of words and phrases, such as common idioms, analogies, and figures of speech.	Reading Literature Unfamiliar Text N/A

Table 17

Grades 9 and 10 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 9-10	<p>EE.L.9-10.2.c: Spell most single-syllable words correctly and apply knowledge of word chunks in spelling longer words.</p> <p>EE.W.9-10.2.c: Use complete, simple sentences as appropriate.</p> <p>EE.W.9-10.2.d: Use domain specific vocabulary when writing claims related to a topic of study or text.</p> <p>EE.W.9-10.2.f: Provide a closing or concluding statement.</p> <p>EE.W.9-10.2.a: Introduce a topic clearly and use a clear organization to write about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.9-10.2.b: Develop the topic with facts or details.</p>	Initial Precursor Distal Precursor	<p>Emergent Writing</p> <p><i>EE.L.9-10.2.c</i></p> <p><i>EE.W.9-10.2.c</i></p> <p><i>EE.W.9-10.2.d</i></p> <p><i>EE.W.9-10.2.f</i></p> <p><i>EE.W.9-10.2.a</i></p> <p><i>EE.W.9-10.2.b</i></p>

Testlet name	Essential Element	Linkage level	Linkage level description
Conventional Writing Grade 9-10	<p>EE.L.9-10.2.c: Spell most single-syllable words correctly and apply knowledge of word chunks in spelling longer words.</p> <p>EE.W.9-10.2.c: Use complete, simple sentences as appropriate.</p> <p>EE.W.9-10.2.d: Use domain specific vocabulary when writing claims related to a topic of study or text.</p> <p>EE.W.9-10.2.f: Provide a closing or concluding statement.</p> <p>EE.W.9-10.2.a: Introduce a topic clearly and use a clear organization to write about it including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.9-10.2.b: Develop the topic with facts or details.</p>	<p>Proximal Precursor</p> <p>Target</p> <p>Successor</p>	<p>Conventional Writing</p> <p>EE.L.9-10.2.c</p> <p>EE.W.9-10.2.c</p> <p>EE.W.9-10.2.d</p> <p>EE.W.9-10.2.f</p> <p>EE.W.9-10.2.a</p> <p>EE.W.9-10.2.b</p>

Table 18

Grades 11 and 12 English Language Arts—Reading

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.11-12.5 IP	RI.11-12.5: Determine whether the structure of a text enhances an author's claim.	Initial Precursor	The student can identify concrete details in a familiar informational text, such as people, events, or ideas.	<p>Reading for Information</p> <p>Familiar Text</p> <p>Business People</p>

Testlet name	Essential Element	Linkage level	Linkage level description	Familiar or unfamiliar text
ELA.RI.11-12.8 IP	RI.11-12.8: Determine whether the claims and reasoning enhance the author's argument in an informational text.	Initial Precursor	During a shared reading activity, the student can recognize that another person can have a perspective that is different.	Reading for Information Familiar Text <i>Fun in Different Weather</i>
ELA.RL.11-12.2 DP	RL.11-12.2: Recount the main events of the text which are related to the theme or central idea.	Distal Precursor	After reading or hearing a familiar story, the student can use story details to correctly identify the specific theme of the story and the main goal or idea of a character in a story.	Reading Literature Familiar Text <i>Mary and Martha</i>
ELA.RL.11-12.1 PP	RL.11-12.1: Analyze a text to determine its meaning and cite textual evidence to support explicit and implicit understandings.	Proximal Precursor	After reading a narrative text, the student can correctly determine the explicit meaning of the text using information explicitly stated in the text.	Reading Literature Unfamiliar Text N/A

Table 19

Grades 11 and 12 English Language Arts—Writing

Testlet name	Essential Element	Linkage level	Linkage level description
Emergent Writing Grade 11–12	<p>EE.W.11-12.2.c: Use complete, simple sentences, as well as compound and other complex sentences as appropriate.</p> <p>EE.W.11-12.2.d: Use domain specific vocabulary when writing claims related to a topic of study or text.</p> <p>EE.W.11-12.2.f: Provide a closing or concluding statement.</p> <p>EE.L.11-12.2.b: Spell most single-syllable words correctly and apply knowledge of word chunks in spelling longer words.</p> <p>EE.W.11-12.2.a: Introduce a topic clearly and write an informative or explanatory text that conveys ideas, concepts, and information including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.11-12.2.b: Develop the topic with relevant facts, details, or quotes.</p>	Initial Precursor Distal Precursor	<p>Emergent Writing</p> <p>EE.W.11-12.2.c</p> <p>EE.W.11-12.2.d</p> <p>EE.W.11-12.2.f</p> <p>EE.L.11-12.2.b</p> <p>EE.W.11-12.2.a</p> <p>EE.W.11-12.2.b</p>

Testlet name	Essential Element	Linkage level	Linkage level description
<p>Conventional Writing</p> <p>Grade 11-12</p>	<p>EE.W.11-12.2.c: Use complete, simple sentences, as well as compound and other complex sentences as appropriate.</p> <p>EE.W.11-12.2.d: Use domain specific vocabulary when writing claims related to a topic of study or text.</p> <p>EE.W.11-12.2.f: Provide a closing or concluding statement.</p> <p>EE.L.11-12.2.b: Spell most single-syllable words correctly and apply knowledge of word chunks in spelling longer words.</p> <p>EE.W.11-12.2.a: Introduce a topic clearly and write an informative or explanatory text that conveys ideas, concepts, and information including visual, tactual, or multimedia information as appropriate.</p> <p>EE.W.11-12.2.b: Develop the topic with relevant facts, details, or quotes.</p>	<p>Proximal Precursor</p> <p>Target</p> <p>Successor</p>	<p>Conventional Writing</p> <p>EE.W.11-12.2.c</p> <p>EE.W.11-12.2.d</p> <p>EE.W.11-12.2.f</p> <p>EE.L.11-12.2.b</p> <p>EE.W.11-12.2.a</p> <p>EE.W.11-12.2.b</p>

Mathematics Released Testlets

The mathematics released testlets tables are arranged by grade (Table 20–Table 26).

Table 20

Grade 3 Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math.3.NF.1-3 IP	3.NF.1-3: Differentiate a fractional part from a whole.	Initial Precursor	Communicate generic understanding of “some” as a certain amount or a number of people or things.
Math 3.OA.4 IP	3.OA.4: Solve addition and subtraction problems when result is unknown, limited to operands and results within 20.	Initial Precursor	Communicate understanding of “separateness” by recognizing objects that are not joined together. Communicate understanding of a set by recognizing a group of objects sharing an attribute.
Math 3.G.2 PP	3.G.2: Recognize that shapes can be partitioned into equal areas.	Proximal Precursor	Recognize two glasses with an equal amount of liquid. Demonstrate an ability to partition a circle and rectangle into two, three, and four equal parts. Recognize that a rectangle divided into equal parts can have rows and columns.

Testlet name	Essential Element	Linkage level	Linkage level description
Math 3.MD.1 PP	3.MD.1: Tell time to the hour on a digital clock.	Proximal Precursor	Identify the hour as the numeral on the left side of the colon symbol (:) and the minutes on the right side of the colon symbol (:) on a digital clock.
Math 3.NBT.3 PP	3.NBT.3: Count by tens using models such as objects, base ten blocks, or money.	Proximal Precursor	Communicate number words 1 to 30 in numerical order verbally. Start at a number, one or otherwise, and count objects to 30 by assigning a single number word to each object. While counting objects up to 30, demonstrate an understanding that (i) it does not matter where you start or in what order you count, (ii) number of objects in a set remains the same, and (iii) the last number counted equals the total number of objects.
Math 3.OA.8 PP	3.OA.8: Solve one-step real-world problems using addition and subtraction within 20.	Proximal Precursor	Find the unknown sum (e.g., $5 + 8 = ?$) or the missing addend (e.g., $6 + ? = 10$) in an addition equation. Find the unknown difference in a subtraction equation (e.g., $12 - 7 = ?$).

Table 21

Grade 4 Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math 4.MD.2.d DP	4.MD.2.d: Identify coins (penny, nickel, dime, quarter) and their values.	Distal Precursor	Recognize any measurable (e.g., length, width, mass) or non-measurable (e.g., color) attribute values.
Math.4.NBT.3 PP	4.NBT.3: Round any whole number 0–30 to the nearest ten.	Proximal Precursor	Communicate understanding that the digit at the tens place is formed by grouping objects by tens and the digit at the ones place is composed of individual objects. Round numbers to the nearest ten using place-value understanding, with digit at the tens place is rounded up if the digit at the ones place equals 5 (e.g., 45 is rounded to 50) or more and is rounded down otherwise (e.g., 32 is rounded down to 30).
Math 4.MD.6 PP	4.MD.6: Identify angles as larger and smaller.	Proximal Precursor	Recognize whether a container is more full or less full than another container.

Testlet name	Essential Element	Linkage level	Linkage level description
Math 4.MD.3 PP	4.MD.3: Determine the area of a square or rectangle by counting units of measure (unit squares).	Proximal Precursor	Communicate understanding that a unit square is a square with edge lengths of 1 unit and area of 1 square unit. Communicate understanding of area as the measure of space contained within the outline or boundary of a two-dimensional object or figure.
Math 4.NBT.4 T	4.NBT.4: Add and subtract two-digit whole numbers.	Target	Demonstrate addition by adding two numbers up to 100. Demonstrate subtraction by subtracting numbers up to 100. Use place-value reasoning including multiples of 10s and 100s to add or subtract numbers.
Math.4.G.1 T	4.G.1: Recognize parallel lines and intersecting lines.	Target	Recognize intersecting lines or line segments as those that have at least one point in common, and parallel lines or line segments as those that are equal distant apart.

Table 22

Grade 5 Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math 5.NBT.4 IP	5.NBT.4: Round two-digit whole numbers to the nearest 10 from 0–90.	Initial Precursor	Without counting each object, recognize the number of objects in a set (up to four).
Math 5.MD.4-5 DP	Determine the volume of a rectangular prism by counting units of measure (unit cubes).	Distal Precursor	Communicate understanding that volume is the space enclosed by a three-dimensional shape or an object. Communicate understanding that a unit cube is a cube with edge lengths of 1 unit and a volume of 1 cubic unit.
Math.5.G.1-4 PP	5.G.1-4: Sort two-dimensional figures and identify the attributes (angles, number of sides, corners, color) they have in common.	Proximal Precursor	Communicate attribute values of a shape, such as number of sides, number of corners, (e.g., a square has 4 sides).
Math 5.NBT.4 T	5.NBT.4: Round two-digit whole numbers to the nearest 10 from 0–90.	Target	Round numbers 0–100 to the nearest ten by using a rounding strategy (e.g., number line, place value).

Testlet name	Essential Element	Linkage level	Linkage level description
Math 5.MD.3 S	5.MD.3: Identify common three-dimensional shapes.	Successor	Communicate different attribute values (e.g., number of sides, number of angles, orientation, size) of spheres, cylinders, cubes, and cones. Describe objects in the real-world using attributes of 3-dimensional shapes (e.g., describing a door as rectangular, a human torso as a cylinder).
Math 5.NBT.5 S	5.NBT.5: Multiply whole numbers up to 5×5 .	Successor	Communicate understanding of multiplication as the number of groups times the number of objects in each group (with the understanding that each group contains equal number of objects), and that the total number of objects (i.e., the product) can then be divided by the number of groups to equal the number of objects in each group, and vice versa.

Table 23

Grade 6 Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math.6.NS.5-8 IP	6.NS.5-8: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).	Initial Precursor	<p>Communicate understanding of "separateness" by recognizing objects that are not joined together.</p> <p>Communicate understanding of set by recognizing a group of objects sharing an attribute.</p>
Math 6.EE.1-2 IP	6.EE.1-2: Identify equivalent number sentences.	Initial Precursor	<p>Combine two or more sets of objects to form a new set. Compare two or more sets containing objects to communicate whether a set has same, different, or equal number of objects than the other set.</p>
Math 6.NS.5-8 PP	6.NS.5-8: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).	Proximal Precursor	<p>Communicate understanding that opposite numbers are equidistant from zero but in opposite directions, or that when two opposite numbers are added together they yield a sum of zero (e.g., $3 + [-3] = 0$, this 3 and -3 are opposite numbers).</p>

Testlet name	Essential Element	Linkage level	Linkage level description
Math 6.NS.5-8 T	6.NS.5-8: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).	Target	Demonstrate use of positive and negative numbers in real world contexts such as temperature, elevation, credits and debits, etc. (e.g., representing a debit of 500 dollars as -500 dollars).
Math 6.G.1 T	6.G.1: Solve real world and mathematical problems about area using unit squares.	Target	Find the unknown quantity in the word problem by determining the area of a rectangle.

Table 24

Grade 7 Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math 7.NS.2.a IP	7.NS.2.a: Solve multiplication problems with products to 100.	Initial Precursor	Communicate understanding of "separateness" by recognizing objects that are not joined together. Communicate understanding of a set by recognizing a group of objects sharing an attribute.

Testlet name	Essential Element	Linkage level	Linkage level description
Math 7.G.5 DP	7.G.5: Recognize angles that are acute, obtuse, and right.	Distal Precursor	<p>Recognize a point as a precise location on a plane or in space, usually represented by a dot.</p> <p>Recognize a ray as a part of a line that begins at one point and extends infinitely in one direction.</p> <p>Recognize a line as a straight line that extends infinitely in two directions.</p>
Math 7.EE.1 DP	7.EE.1: Use the properties of operations as strategies to demonstrate that expressions are equivalent.	Distal Precursor	<p>Demonstrate understanding that the sum or product of two numbers remains the same regardless of the order in which numerals are written (e.g., $3 + 4 = 4 + 3$, $2 \times 3 = 3 \times 2$), and the sum or product of three or more numbers remains the same regardless of the grouping of the numbers (e.g., $[2 + 3] + 5 = 2 + [3 + 5]$, $2 \times [3 \times 5] = [2 \times 3] \times 5$).</p>

Table 25

Grade 8 Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math 8.G.9 IP	8.G.9: Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).	Initial Precursor	Recognize attributes, or characteristics of an object such as color, orientation, length, width, weight, etc.
Math 8.EE.7 IP	8.EE.7: Solve simple algebraic equations with one variable using addition and subtraction.	Initial Precursor	Combine two or more sets of objects or numbers to form a new set. Split one set into multiple sets grouped together by similar characteristics.
Math.8.EE.1 DP	8.EE.1: Identify the meaning of an exponent (limited to exponents of 2 and 3).	Distal Precursor	Communicate understanding that in repeated addition problems, a single numerical value is added repeatedly (e.g., $6 + 6 + 6$), and one way to add a number a given number of times is using skip counting strategy (e.g., $6 + 6 + 6$ can be added as 6, 12, 18). Use models, such as sets of counters, blocks, concrete manipulatives, etc. or number line diagrams to represent a repeated addition problem.

Testlet name	Essential Element	Linkage level	Linkage level description
Math 8.F.1-3 DP	8.F.1-3: Given a function table containing at least 2 complete ordered pairs, identify a missing number that completes another ordered pair (limited to linear functions).	Distal Precursor	Recognize growing patterns as a pattern that increases (e.g., 3, 6, 9, 12...), and a shrinking pattern as a pattern that decreases (e.g., 12, 10, 8...).
Math 8.G.9 DP	8.G.9: Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).	Distal Precursor	Recognize attributes or characteristics of an object that are measurable (e.g., length, weight, time).
Math 8.G.9 PP	8.G.9: Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).	Proximal Precursor	Communicate understanding that length is the distance between the two points that define a line segment, perimeter is the distance that surrounds a plane area, area is the amount of space contained within the outline or boundary of a two-dimensional object or figure, and volume is the space enclosed by a shape or an object.

Testlet name	Essential Element	Linkage level	Linkage level description
Math.8.NS.2.a PP	8.NS.2.a: Express a fraction with a denominator of 100 as a decimal.	Proximal Precursor	Communicate understanding that a decimal point is a dot that separates the whole number from the fractional part of a number. Represent a fraction with a denominator of 10 as a decimal.
Math 8.EE.2 PP	8.EE.2: Identify a geometric sequence of whole numbers with a whole number common ratio.	Proximal Precursor	Recognize a growing pattern that increases (e.g., 3, 6, 9, 12...) and a shrinking pattern as a pattern that decreases (e.g., 12, 10, 8, ...).
Math 8.G.9 S	8.G.9: Use the formulas for perimeter, area, and volume to solve real world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).	Successor	Solve word problems where the unknown quantity is obtained using the volume of a rectangular prisms, area of rectangles, or perimeter of a polygon.

Table 26

High School Mathematics

Testlet name	Essential Element	Linkage level	Linkage level description
Math HS. N.Q1-3 IP	N.Q1-3: Express quantities to the appropriate precision of measurement.	Initial Precursor	Without counting each object, identify the number of objects in a set (up to four).

Testlet name	Essential Element	Linkage level	Linkage level description
Math N-CN.2.b IP	N-CN.2.b: Solve real world problems involving addition and subtraction of decimals, using models when needed.	Initial Precursor	<p>Communicate understanding of "separateness" by recognizing objects that are not joined together.</p> <p>Communicate understanding of set by recognizing a group of objects sharing an attribute.</p>
Math A-SSE.4 IP	A-SSE.4: Determine the successive term in a geometric sequence given the common ratio.	Initial Precursor	<p>Group together objects by attribute values such as shape or size (e.g., group together a square, a rectangle, and a rhombus as they all have four sides).</p> <p>Contrast or distinguish objects based on attributes such as shape, size, texture, and numerical pattern.</p> <p>Order objects by following a specific rule (e.g., arrange three objects with different sizes from the smallest to largest).</p>

Testlet name	Essential Element	Linkage level	Linkage level description
Math S-ID.3 IP	S-ID.3: Interpret general trends on a graph or chart.	Initial Precursor	Arrange objects in a specific order (e.g., smallest to largest). Group objects by some attribute value (e.g., shape, size, texture, numerical pattern).
Math N.Q.1-3 DP	N.Q. 1-3: Express quantities to the appropriate precision of measurement.	Distal Precursor	Round decimals to any place by using standard rounding off rules (e.g., round up when the digit in the tenths place is 5 or greater, and round down when the digit in the tenths place is less than 5). For example, round 8.5 to 9.0.
Math G.MG.1-3 PP	G-MG.1-3: Use properties of geometric shapes to describe real-life objects.	Proximal Precursor	Recognize a square, rectangle, circle, triangle, cube, cone, cylinder, and sphere.
Math N.CN.2.b T	N-CN.2.b: Solve real world problems involving addition and subtraction of decimals and whole numbers, using models when needed.	Target	Solve real-world problems involving addition and subtraction of rational numbers with digits to the hundredths place (e.g., John has \$2.50. Sara gives him \$1.50 more. How much money does John have now?).

Testlet name	Essential Element	Linkage level	Linkage level description
Math A.REI.10-12 S	A.REI.10-12: Interpret the meaning of a point on the graph of a line. For example, on a graph of pizza purchase, trace the graph to a point and tell the number of pizzas purchased and the total cost of the pizzas.	Successor	Find solutions to real-world problems by interpreting linear function graphs.

Science Released Testlets

The science released testlets tables are arranged by grade band (Table 27–Table 29).

Table 27

Elementary: Physical, Life, Earth and Space Science

Testlet name	Essential Element	Linkage level	Linkage level description
Science 5.ESS2-1 I	Earth & Space Science 5.ESS2-1: Develop a model showing how water (hydrosphere) affects the living things (biosphere) found in a region.	Initial	Anticipates routine (e.g., clothes to wear, activities to do) to follow when it is raining.
Science 5.ESS3-1 I	Earth & Space Science 5.ESS3-1: Use information to describe how people can help protect the Earth's resources and how that affects the environment.	Initial	Identify one way to protect a resource of Earth (e.g., put paper in the recycling bin to save trees, recycle cans to save metal, turn off appliances to save energy).
Science 5.ESS1-2 P	Earth & Space Science 5.ESS1-2: Represent and interpret data on a picture, line, or bar graph to show seasonal patterns in the length of daylight hours. <i>Instructional Activities: The Daylight Hours</i>	Precursor	Recognize patterns about length of daylight hours over time (e.g., week to week, month to month).

Testlet name	Essential Element	Linkage level	Linkage level description
Science 5.ESS3-1 P	Earth & Space Science 5.ESS3-1: Use information to describe how people can help protect the Earth's resources and how that affects the environment.	Precursor	Compare two methods (e.g., reusable water bottles vs. recycling disposable bottles, shutting off lights, using both sides of paper) people can use to help protect the Earth's resources.
Science 5.ESS3-1 T	Earth & Space Science 5.ESS3-1: Use information to describe how people can help protect the Earth's resources and how that affects the environment.	Target	Use information to describe how people can help protect the Earth's resources and how that affects the environment.
Science 5.LS1-1 I	Life Science 5.LS1-1: Provide evidence that plants need air and water to grow.	Initial	Distinguish things that grow from things that don't grow (but some things grow slower than others).
Science 5.PS1-2 I	Physical Science 5.PS1-2: Measure and compare weights of substances before and after heating, cooling, or mixing substances to show that weight of matter is conserved.	Initial	Recognize the change in state from liquid to solid or from solid to liquid of the same material.
Science 5.PS1-2 P	Physical Science 5.PS1-2: Measure and compare weights of substances before and after heating, cooling, or mixing substances to show that weight of matter is conserved.	Precursor	Compare the weight of an object before and after it changes from a liquid to a solid and from a solid to a liquid.

Testlet name	Essential Element	Linkage level	Linkage level description
Science 5.PS1-2 T	Physical Science 5.PS1-2: Measure and compare weights of substances before and after heating, cooling, or mixing substances to show that weight of matter is conserved.	Target	Measure and compare weights of substances before and after heating, cooling, or mixing substances to show that weight of matter is conserved.

Table 28

Middle School: Physical, Life, Earth and Space Science

Testlet name	Essential Element	Linkage level	Linkage level description
Science MS.ESS2-6 I	Interpret basic weather information (e.g., radar, map) to make predictions about future conditions (e.g., precipitation, temperature, wind). <i>Instructional Activity: Weather Watchers</i>	Initial	Interpret basic weather information (e.g., radar, map) to identify weather conditions.
Science MS.ESS3-3 I	Earth & Space Science MS.ESS3-3: Develop a plan to monitor and minimize a human impact on the local environment (e.g., water, land, pollution).	Initial	Recognize resources (e.g., food, water, air, land, materials) in the local environment that are important for human life.
Science MS.ESS3-3 T	Earth & Space Science MS.ESS3-3: Develop a plan to monitor and minimize a human impact on the local environment (e.g., water, land, pollution).	Target	Develop a plan to monitor and minimize a human impact on the local environment (e.g., water, land, pollution).

Testlet name	Essential Element	Linkage level	Linkage level description
Science MS.LS1-5 I	Life Science MS.LS1-5: Interpret data to show that environmental resources (e.g., food, light, space, water) influence growth of organisms (e.g., drought decreasing plant growth, fertilizer increasing plant growth, different varieties of plant seeds growing at different rates in different conditions, fish growing larger in large ponds than small ponds).	Initial	Match organisms to their habitats
Science MS.LS2-2 I	Life Science MS.LS2-2: Use models of food chains/webs to identify producers and consumers in aquatic and terrestrial ecosystems. <i>Instructional Activity: What Animals Eat</i>	Initial	Identify food that animals eat (foods could be general [e.g., meat, plants] or more specific).
Science MS.LS2-2 P	Life Science MS.LS2-2: Use models of food chains/webs to identify producers and consumers in aquatic and terrestrial ecosystems. <i>Instructional Activity: What Animals Eat</i>	Precursor	Classify animals based on what they eat (e.g., herbivore, omnivore, carnivore).
Science MS.LS2-2 T	Life Science MS.LS2-2: Use models of food chains/webs to identify producers and consumers in aquatic and terrestrial ecosystems. <i>Instructional Activity: What Animals Eat</i>	Target	Use models of food chains/webs to identify producers and consumers in aquatic and terrestrial ecosystems.

Testlet name	Essential Element	Linkage level	Linkage level description
Science MS.PS3-3 I	Physical Science MS.PS3-3: Test and refine a device (e.g., foam cup, insulated box, or thermos) to either minimize or maximize thermal energy transfer (e.g., keeping liquids hot or cold, preventing liquids from freezing, keeping hands warm in cold temperatures).	Initial	Identify objects/materials used to minimize or maximize thermal energy transfer (e.g., gloves, vacuum flask, insulated hot pad holder or foam cup).
Science MS.PS1-2 P	Physical Science MS.PS.1-2: Interpret and analyze data on the properties (e.g., color, texture, odor, and state of matter) of substances before and after chemical changes have occurred (e.g., burning sugar or burning steel wool, rust, effervescent tablets). <u>Instructional Activity: Chemical Changes</u>	Precursor	Gather data on the properties (e.g., color, texture, odor, and state of matter) of substances before and after chemical changes have occurred (e.g., burning sugar or burning steel wool, rust, effervescent tablets).
Science MS.PS2-2 P	Physical Science MS.PS2-2: Investigate and predict the change in motion of objects based on the forces acting on those objects.	Precursor	Investigate and identify ways to change the motion of an object (e.g., change an incline's slope to make an object go slower, faster, farther).

Table 29

High School: Physical, Life, Earth and Space Science

Testlet name	Essential Element	Linkage level	Linkage level description
Science HS.LS1-2 P	Life Science HS.LS1-2: Use a model to illustrate the organization and interaction of major organs into systems (e.g., circulatory, respiratory, digestive, sensory) in the body to provide specific functions. <i>Instructional Activity: Respiratory System</i>	Precursor	Identify which organs work for a specific function (e.g., controlling the nervous system, helping living things breathe, pumping blood or moving nutrients throughout the body, protecting the body, breaking down food for absorption).
Science HS.LS4-2 P	Life Science HS.LS4-2: Explain how the traits of particular species allow them to survive in their specific environments.	Precursor	Identify factors in an environment that require special traits to survive.
Science HS.LS1-2 T	Life Science HS.LS1-2: Use a model to illustrate the organization and interaction of major organs into systems (e.g., circulatory, respiratory, digestive, sensory) in the body to provide specific functions. <i>Instructional Activity: Respiratory System</i>	Target	Use a model to illustrate the organization and interaction of major organs into systems (e.g., circulatory, respiratory, digestive, sensory) in the body to provide specific functions.
Science HS.LS4-2 T	Life Science HS.LS4-2: Explain how the traits of particular species allow them to survive in their specific environments.	Target	Explain how the traits of particular species allow them to survive in their specific environments.

Testlet name	Essential Element	Linkage level	Linkage level description
Science HS.PS2-3 I	Physical Science HS.PS2-3: Evaluate the effectiveness of safety devices and design a solution that could minimize the force of a collision.	Initial	Identify safety devices that minimize force of a collision (e.g., floor mats, helmets, or steel-toed boots).
Science HS.PS2-3 P	Physical Science HS.PS2-3: Evaluate the effectiveness of safety devices and design a solution that could minimize the force of a collision	Precursor	Use data to compare the effectiveness of safety devices to determine which best minimizes the force of a collision.
Science HS.PS3-4 I	Physical Science HS.PS3-4: Investigate and predict the temperatures of two liquids before and after combining to show uniform energy distribution.	Initial	Compare relative difference in temperature (warmth, coldness) of two liquids.
Science HS.PS3-4 P	Physical Science HS.PS3-4: Investigate and predict the temperatures of two liquids before and after combining to show uniform energy distribution.	Precursor	Compare the temperatures of two liquids of different temperatures before and after combining.
Science HS.PS3-4 T	Physical Science HS.PS3-4: Investigate and predict the temperatures of two liquids before and after combining to show uniform energy distribution.	Target	Investigate and predict the temperatures of two liquids before and after combining to show uniform energy distribution.
Science HS.ESS3-2 I	Earth and Space Science HS.ESS3-2: Construct an argument for a strategy to conserve, recycle, or reuse resources.	Initial	Recognize strategies to manage objects (e.g., dispose, repurpose, or recycle).

Testlet name	Essential Element	Linkage level	Linkage level description
Science HS.ESS1-4 I	Earth and Space Science HS.ESS1-4:Use a model of Earth and the Sun to show how Earth’s tilt and orbit around the Sun cause changes in seasons.	Initial	Identify characteristics of the seasons (e.g., warmest or coldest weather, shortest or longest length of day, seasonal appearance of deciduous trees, seasonal activities.