



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Science Assessment Development

WCAS Accommodated Paper-Pencil Training Test Lesson Plans

Grade 8

Contents

Introduction.....	3
Considerations.....	3
Features of the WCAS	4
Student to TA Ratio	4
Information Sections.....	4
Locking Questions.....	4
Multipart Questions.....	4
Preparing for the Training Test Lesson	5
Grade 8 Training Test Overview	6
Grade 8 Training Test Lesson	7
Cover Page	7
Do Not Write on This Page.....	7
Question 1: Hot Text/Matching	7
Question 2: Multiple Choice/Multiple Choice.....	9
Question 3: Multiple Select	10
Questions 4–8: <i>Sea Star Reproduction</i> Cluster	11
Question 4: Multiple Choice/Multiple Choice (locking question).....	11
Question 5: Matching/Multiple Choice.....	12
Question 6: Grid (locking question)	13
Question 7: Edit Task Inline Choice (locking question)	14
Question 8: Short Answer.....	15
STOP You have reached the end of the test.....	15
Legal Notice	16

Introduction

Federal and state legislation requires all students to participate in state testing. Students eligible to receive special education or 504 services are permitted access to accessibility features when documented in the student's Individualized Education Plan (IEP) or 504 Plan within the parameters allowed by the assessment constructs.

Washington Comprehensive Assessment of Science (WCAS) Accommodated Paper Booklets are available for students with a documented need in their IEP or 504 Plan. Accommodated paper booklets include standard print, large print, Spanish, and Braille.

Students may benefit from opportunities to explore and practice with the layout of the test and the tools available to them. This document contains guidance and activities to help students practice with the item types and features of the **Grade 8 WCAS Accommodated Paper-Pencil Training Test Booklet**. A standard print version of the booklet is available on the [Washington Comprehensive Assessment Portal \(WCAP\)](#).

The WCAS Accommodated Paper-Pencil Training Test Booklets include the same standalone questions and item clusters as the WCAS Online Training Tests. However, some modifications may have been made to maximize the accessibility of the item in the accommodated booklet, while adhering to the intent of the item in the online testing system. The modifications are described in this lesson plan. The [WCAS Online Training Tests](#) can be accessed on the [Washington Comprehensive Assessment Portal \(WCAP\)](#) for comparison.

Classroom time spent on this training test lesson should be carefully limited so the focus remains on instruction aligned to the concepts and skills in the [Washington State 2013 K–12 Science Learning Standards](#) (hereafter referred to as "the standards"). Students should use the WCAS Accommodated Paper-Pencil Training Tests just enough to be able to demonstrate their understanding of science concepts and skills on the WCAS Summative Tests without being hindered by lack of familiarity with using an accommodated paper booklet.

For more information on state testing accommodations, see the [Guidelines on Tools, Supports and Accommodations for State Assessments \(GTSA\)](#) and the [Test Coordinator's Manual \(TCM\)](#).

Considerations

- All students should have the opportunity to access WCAS Training Tests before taking the summative WCAS at the end of the school year (hereafter referred to as "the summative test").
- All item types EXCEPT table input are available on the Grade 8 Accommodated Paper-Pencil Training Test Booklet. Students can practice with a table input item by completing Question 1 on the Grade 11 WCAS Accommodated Paper-Pencil Training Test Booklet.
- Teachers are encouraged to answer students' inquiries and give support while students are working in the Training Test.
 - **NOTE:** During the summative test, test administrators (TA) must follow the *TA Script of Student Test Directions* verbatim.
- Emphasize that students should not be concerned with the science content or correct answers but should concentrate on how to enter responses in the accommodated paper-pencil booklet and how to use other tools, supports, and/or accommodations available to them.
- The activities in the lesson are not a checklist. There is no expectation that students complete all suggested activities. The activities do not describe all possible ways students could engage with the questions or tools.
- The activities in the lesson may be modified and/or shared with any interested teacher, parent, or student.

Questions or comments? Email us at science@k12.wa.us.

Features of the WCAS

Student to TA Ratio

During live summative testing, WCAS accommodated paper booklets should be administered to small groups of students to ensure the validity, reliability, and fairness of student results. The student to Test Administrator (TA) ratio should be no greater than 3 students to 1 TA. This ensures that the TA is able to provide all of the supports described in a student's IEP or 504 Plan.

The 3 students to 1 TA ratio does not need to be maintained when practicing with the training tests.

Information Sections

The WCAS includes standalone items and item clusters (information sections and related questions). Some item clusters include more than one information section. Each information section is given before the questions most closely associated to that information. However, students may refer back to previous information sections as needed.

Locking Questions

Some item clusters include locking questions. The locking of questions allows subsequent items or information sections to update the student with correct information and limits clueing among questions in a cluster. Students cannot change an answer to a locking question once they have moved on to the next question.

In the online testing system, students are given a warning about locking questions before they move forward in the test. The online testing system also prevents students from changing an answer if they return to a previously answered locking question. To account for this functionality in the accommodated paper-pencil booklets, locking questions have a red box at the bottom of the page which states:

THIS QUESTION WILL BE LOCKED AFTER COMPLETION.

You must answer this question before moving on to the next question.
After you move to the next question, you cannot change your answer to this question.

During live summative testing, TAs must monitor students closely to ensure that they do not change their answers after they move on in their test booklet. Students can re-read the question, and their answer, but they cannot change their answers for any part of a locking question after they have moved to the next question in the booklet.

Multipart Questions

Some questions are divided into multiple parts. Typically, this includes two parts (Part A and Part B). Multipart questions can include different item types (e.g., multiple choice followed by an edit task inline choice). Question parts work together to strengthen alignment to a standard. For example, a question could ask a student to evaluate a claim in Part A, and then in Part B, ask the student to identify how a particular trend in data or piece of evidence supports their evaluation of that claim.

Preparing for the Training Test Lesson

In addition to the Grade 8 WCAS Accommodated Paper-Pencil Training Test Booklet, each student should have:

- a paper copy of the Grade 8 WCAS Training Test Glossary of Non-Science Terms which is available on the [WCAP Portal](#).
- access to a scientific calculator, see the [Calculator and Electronic Device Policy](#) for more information;
- scratch and/or graph paper; and
- a paper copy of the WCAS Periodic Table, available on the [WCAP Portal](#).

Some students use additional non-embedded tools, designated supports, and/or accommodations during state testing. Those tools, supports, and accommodations should be available when practicing with the Accommodated Paper-Pencil Training Test booklets.

The lesson plan that follows gives general suggestions for how students can interact with each information section and item. Teachers should include opportunities for students to practice with non-embedded tools, designated supports, and/or accommodations that they use during the course of a school day and that are allowed on the summative WCAS into the lesson plan, where applicable for their students.

For more information, please see the [Guidelines on Tools, Supports, and Accommodations for State Assessments](#) .

Grade 8 Training Test Overview

Table 1 provides the metadata for each of the questions on the **Grade 8 Training Test** including item type, locking information, answer key, score point, and alignment information.

Details about each item type and a full set of item specifications are available in the [Grade 8 Test Design and Item Specifications](#) document on the [Science Assessment webpage](#). Please refer to those documents for more information about the design of the summative test. If the Key column states "Rubric", then more details about the correct answer will be provided on the following pages.

Table 1: Grade 8 Training Test Metadata

#	Title	Item Type	Lock	Key	Score Point	Performance Expectation	Item Specification	Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept
1 A/B	Titan Images standalone	Hot Text/ Matching	No	Rubric/ Rubric	2	MS-ESS1-3	MS-ESS1-3.4	Analyzing and Interpreting Data	~	Scale, Proportion, and Quantity
2 A/B	Natural vs Modified Rubber standalone	Multiple Choice/ Multiple Choice	No	D/B	2	MS-PS1-3	MS-PS1-3.1	Obtaining, Evaluating, and Communicating Data	PS1.B	Structure and Function
3	Earthquake Damage standalone	Multiple Select	No	A, D	1	MS-ESS3-2	MS-ESS3-2.1	Obtaining, Evaluating, and Communicating Data	ESS3.B	Patterns
4 A/B	Sea Star Reproduction cluster	Multiple Choice/ Multiple Choice	Yes	C, A	2	MS-LS3-2	MS-LS3-2.2	Developing and Using Models	LS1.B LS3.B	~
5 A/B	Sea Star Reproduction cluster	Matching/ Multiple Choice	No	Rubric/ B	2	MS-LS3-2	MS-LS3-2.1	Developing and Using Models ~	LS1.B LS3.A LS3.B	Cause and Effect
6	Sea Star Reproduction cluster	Grid	Yes	Rubric	1	MS-LS3-1	MS-LS3-1.2	Developing and Using Models	LS3.A	~
7	Sea Star Reproduction cluster	Edit Task Inline Choice	Yes	Rubric	1	MS-LS3-1	MS-LS3-1.1	Developing and Using Models ~	LS3.A	Structure and Function
8	Sea Star Reproduction cluster	Short Answer	No	Rubric	1	MS-LS3-1	MS-LS3-1.3	~	LS3.B	Structure and Function

Grade 8 Training Test Lesson

Cover Page

The text on the front cover is repeated here as a reminder of the purpose of the Training Test: “This training test paper-pencil booklet is intended to provide students who are administered paper-pencil versions of the Washington Comprehensive Assessment of Science (WCAS) with the opportunity to become familiar with the format of the assessment.”

Do Not Write on This Page

Page 3

These pages are included to ensure the correct layout in the progression of items in the WCAS accommodated paper-pencil booklets.

Have students:

Notice the GO ON arrow in the bottom-right hand corner of the page.

Teacher notes:

This symbol means that there are more questions to answer in the test.

Question 1: Hot Text/Matching

Page 4, 5, & 6

This question is a **multipart** question. Multipart questions can include different item types for each part (e.g., multiple choice followed by an edit task inline choice).

Have students:

Note that this item appears on three pages.

Teacher notes:

Multipart Items may appear on one, two, or sometimes even three pages.

Read the first line of the question: “The following question has two parts. First, answer part A. Then, answer part B.”

This line of text is important to notice, since it tells students how many parts are related to each other. Some questions may also have a part C.

Read the entire question carefully to determine where each part of the question begins and ends.

*Bold text stating “**Part A**” and “**Part B**” is there to guide them. A complete response must provide answers to all parts.*

Part A is a **hot text** item. Hot text items ask students to order statements into a sequence. In the online test, students use a mouse, touch pad, or touch screen to drag and drop statements into a table. In the paper booklet, students fill in bubbles in the rows of a table to order a set of lettered statements. For this question, students fill in a circle in each of rows 1 through 5 to show the order of the given statements.

Sometimes statements can be used only once. Sometimes they can be used more than once. Sometimes there are more statements than boxes, and not all statements are used.

Have students:

Read the question carefully and respond to Part A by filling in one circle in each row.

Teacher notes:

*Point out the sentence: "Fill in **one** circle for each row." The bolded word in the directions helps students fill in the correct number of circles for the hot text item.*

Part B is a **matching** item. Matching items provide students with a table and ask the students to fill in circles within the cells of the table to make identifications, classifications, or predictions. The directions may clarify how many circles can be filled in per row or column. In the online system, the student uses a mouse, touchpad, or touchscreen to select cells in the table. In the paper booklet, the student fills in circles in cells.

Have students:

Read the question carefully and respond to Part B by filling in one circle in each row.

Teacher notes:

*Point out the sentence: "Fill in **one** circle for each row." The bolded word in the directions helps students fill in the correct number of circles for the matching item.*

Correct Answer – 1 point for Part A, 1 point for Part B

Part A Correct Sequence:

Row 1. Option C: Minerals in the rocks on Titan

Row 2 Option D: Shape of large landforms

Row 3 Option A: Diameter of Titan

Row 4 Option E: Titan's orbital path around Saturn

Row 5 Option B: Distance between Titan and the sun

Part B:

Diameter of Titan: Telescope Orbiting Earth

Distance between Titan and the sun: Telescope Orbiting Earth

Minerals in the rocks on Titan: Probe on Titan's Surface

Shape of large landforms on Titan: Spacecraft Orbiting Saturn

Titan's orbital path around Saturn: Spacecraft Orbiting Saturn

Question 2: Multiple Choice/Multiple Choice

Page 8, 9, & 10

Part A and Part B Are **multiple choice** items. Multiple choice items include a question followed by four options. In the online system, the student uses a mouse, touchpad, or touchscreen to select a lettered circle in front of one option. In the paper booklet, the student fills in a lettered circle in front of the option.

Have students:

Notice the diagram is in color.

Find the word “shows” in the question AND in the Glossary of Non-Science Terms.

Read the question and respond to Part A by filling in one circle.

Read the question and respond to Part B by filling in one circle.

Teacher notes:

Colored graphics in the WCAS are chosen to ensure the content is discernible for the widest range of viewers, including those with common types of colorblindness. If a student struggles to see the graphic clearly, you can explore additional tools, designated supports, or accommodations.

The word “shows” is defined as “gives information”. There are several definitions for the word shows. Because “gives information” is not the most common definition, the word is included in the Glossary of Non-Science terms.

Correct Answer – 1 point for Part A, 1 point for Part B

Part A: Option D

Part B: Option B

Question 3: Multiple Select

Page 12 & 13

Multiple select items include a direction followed by five or more options. The directions indicate how many options a student should select to complete the question. In the online system, the student uses a mouse, touchpad, or touchscreen to select an empty box in front of an option. In the paper booklet, the student fills in an empty circle in front of an option.

Have students:

Note the circles do not have letters inside them.

Find the word "probability" in the question AND in the Glossary of Non-Science Terms.

Find the bolded words in the question.

Read the question carefully and respond to Part B by filling in two circles.

Teacher notes:

This is a clue that more than one answer option will be selected.

The word "probability" is defined as "chance". Items in the grade 8 WCAS use language targeted to the previous grade or lower reading level with the exception of expected science terms. Because "probability" is an 8th word, it is included in the Glossary of Non-Science terms.

Remind students that the directions to some questions will tell them exactly how many options to choose.

If a student wishes to change their answer, be sure they erase the mark completely and fill in a different circle.

Correct Answer – 1 point

Option 1 and Option 4

Questions 4–8: *Sea Star Reproduction Cluster*

An item cluster starts on pages 14 and 15. The information provided in Section 1 will support students in answering the questions in the cluster.

Have students:

Read the directions: “Read the information and answer the questions.”

Find the word “unite” in Section 1 AND on the Glossary of Non-Science Terms.

Read the information carefully, then GO ON to the questions in the cluster.

Teacher notes:

All text and diagrams should be read very carefully before answering any questions.

The word “unite” is defined as “join together”. This word is included in the Glossary of Non-Science Terms as it may be unfamiliar to English Learners.

Students can use scratch paper to organize their thoughts and make notes while reading the information.

Students can return to the information while answering questions.

Question 4: Multiple Choice/Multiple Choice (locking question)

Pages 16 & 17

Part A and Part B of Question 4 are **multiple choice** items. Question 4 is also a **locking** question. The locking of questions allows subsequent items or information sections to update the student with correct information and limits clueing among questions within a cluster.

Students must answer a locking question before moving to a different question. After moving to a different question, students can return to locked questions and see their answer, but they cannot change their answer.

In the online system, this question is a one-part grid item. It has been modified to a two-part multiple choice question for the paper booklet.

Have students:

Carefully read the red text in the box at the bottom of page 17.

Read the question and respond to Part A by filling in one circle.

Read the question and respond to Part B by filling in one circle.

Teacher notes:

Explain to students that they must answer the question before moving to a different question. They cannot change their answer to this question after they move to a different question.

Correct Answer – 1 point for Part A, 1 point for Part B

Part A: Option C

Part B: Option A

Question 5: Matching/Multiple Choice

Page 19

Note that there is a new information section (Section 2) on page 18. Some clusters include more than one information section. Each information section is delivered along with the questions most closely associated to that information. Students should carefully read the text and diagram in Section 2 before working with Question 5. The information in Section 1 is also available for the student to reference if needed.

Part A is a **matching** item.

Have students:

Read the question carefully and respond by filling in one circle in each row.

Teacher notes:

*Point out the last sentence: "Fill in **one** circle for each row."
The bolded word in the directions helps students fill in the correct number of circles for the matching item.*

Part B is a **multiple choice** item.

Have students:

Read the question carefully and respond by filling in one circle.

Teacher notes:

Remind students that they can refer back to the information in Section 1 when answering questions.

Correct Answer – 1 point for Part A, 1 point for Part B

Part A:

All offspring have the same traits: Asexual Reproduction

Genetic information is transferred to the offspring: Both

Different combinations of genetic information in the offspring are possible: Sexual Reproduction

Each offspring has two alleles for every trait: Both

Part B: Option B

Question 6: Grid (locking question)

Page 15

Note that there is a new information section (Section 3) on page 20. Students should carefully read the text and diagram in section 3 before working with Question 6.

Have students:

Find the word “grasping” in Section 3 AND on the Glossary of Non-Science Terms.

Teacher notes:

The word “grasping” is defined as “grabbing and holding an object”. This word is included in the Glossary of Non-Science Terms as it may be unfamiliar to English Learners.

Question 6

This question is a **grid** item. In the online system, students use a mouse, touch pad, or touchscreen to drag and drop labels into pre-placed answer spaces to make a model. In this modified item, students fill in a circle in each row of a table to identify the locations in a lettered model where labels belong. The directions clarify how many circles can be filled in per row of the table.

Have Students:

Carefully read the red text in the box at the bottom of page 21.

Teacher Notes:

Explain to students that they must answer the question before moving to a different question. They cannot change their answer to this question after they move to a different question.

Read the question carefully and respond by filling in one circle in each row.

*Point out the last sentence: “Fill in **one** circle for each label.” The bolded word in the directions helps students fill in the correct number of circles for the matching item.*

Correct Answer – 1 point

Sticky foot trait: Z

Sticky foot protein: Y

Sticky foot gene: X

Question 7: Edit Task Inline Choice (locking question)

Page 22

This question is an **edit task inline choice** item. Edit task inline choice items provide partially completed sentences that students complete by selecting words, phrases, letters, or numbers from a set of options. In the online system, students use a mouse, touch pad, or touchscreen to select options from each drop-down list in the question. In the paper booklet, students fill in a circle in each box in the question.

Have students:

Carefully read the red text in the box at the bottom of page 22.

Find the bolded words in the question.

Read the question carefully and respond by filling in one circle in each of the two boxes.

Teacher notes:

Explain to students that they must answer the question before moving to a different question. They cannot change their answer to this question after they move to a different question.

In this item, "each" is bolded to remind students that each box needs to have one circle filled in.

Have students read the completed sentence aloud after filling in one circle for each box to demonstrate how this item type works.

Correct Answer – 1 score point

A mutation changes the structure of the gene, which can change the structure and function of the protein.

Question 8: Short Answer

Page 25

Short answer items ask students to construct a written response to a question. Some short answer items first ask students to choose from a list of options before constructing the response. In the online system, students type their answers into a response box. In the paper booklet, students write their answers on lines in a response box.

Have students:

Find the bolded words in the question.

Read the question carefully and respond by filling in one circle AND writing a response to the prompt in the area with lines.

Teacher notes:

Remind students that the directions to some questions will tell them exactly how many options to choose. Remind students they may look back at information in Sections 1, 2, and 3.

Notice how the prompt before the writing space has bolded "that" to help link the option the student selects to the description the student writes.

Students can use scratch paper to organize their thoughts, make notes, etc. Only responses written into the response box will be scored for the summative test, so students should practice that here.

A student does not need to fill all of the lines in the response box.

Correct Answer – 1 point

If the student selected "Beneficial", then they should write something like "The sea star could move more easily to catch prey/avoid predators if its feet don't stick to rocks as much," or "The mutation is beneficial because less sticky protein means the sea star can move more quickly without getting stuck on objects."

OR

If the student selected "Harmful", then they should write something like "The sea star can't open prey as easily as when the protein was stickier," or "The sea star can be pulled off of rocks by predators more easily."

STOP You have reached the end of the test.

Page 27

This page tells students that they have finished with the test. This is an opportunity to review their work. Remember, students can return to locked questions and see their answer, but they cannot change their answer.

Legal Notice



Except where otherwise noted, this work by the [Office of Superintendent of Public Instruction](#) is licensed under a [Creative Commons Attribution License](#).

Please make sure that permission has been received to use all elements of this publication (images, charts, text, etc.) that are not created by OSPI staff, grantees, or contractors. This permission should be displayed as an attribution statement in the manner specified by the copyright holder. It should be made clear that the element is one of the “except where otherwise noted” exceptions to the OSPI open license.

For additional information, please visit the [OSPI Interactive Copyright and Licensing Guide](#).

OSPI provides equal access to all programs and services without discrimination based on sex, race, creed, religion, color, national origin, age, honorably discharged veteran or military status, sexual orientation including gender expression or identity, the presence of any sensory, mental, or physical disability, or the use of a trained dog guide or service animal by a person with a disability. Questions and complaints of alleged discrimination should be directed to the Equity and Civil Rights Director at 360-725-6162 or P.O. Box 47200 Olympia, WA 98504-7200.