



HSA Science (NGSS) Grades 5 and 8 and the Biology 1 (NGSS) End of Course Exam Interim Assessments: A Guide for Administration

2020-2021

Published August 13, 2020

TABLE OF CONTENTS

Section 1.0: Introduction to the Guide	1
1.1. Intended Audience.....	1
1.2. Purpose of the Guide.....	1
1.3. Organization of the Guide.....	1
1.4. Training Tests.....	1
1.5. HSAP Help Desk	2
Section 2.0: Overview of the Interim Assessments	4
2.1. HSA Science (NGSS) and Biology 1 (NGSS) EOC Exam.....	4
2.2. Key Features of the Interim Assessments	4
2.3. Administration Models	5
2.3.1. Standardized Administration.....	5
2.3.2. Non-standardized Administration.....	5
2.3.3. Criteria for Selecting Standardized Administration.....	6
Section 3.0: Preparing To Administer NGSS-Aligned Assessments	8
3.1. Tasks to Complete Prior to Administration.....	8
3.2. Scheduling the Interim Assessments	9
3.2.1. Testing Times	9
3.2.2. Available NGSS-Aligned Interim Assessments	9
3.3. Remote Administration of the NGSS Interim Assessments.....	12
Section 4.0: Administering the Interim Assessments Online	13
4.1. Starting a Test	15
4.2. Sensitivity Responses	28
Section 5.0: Guidelines For Interim Assessments Test Security	30
5.1. Responding to Testing Improprieties, Irregularities, and Breaches	30
5.2. Electronic Devices	31
5.3. Scratch Paper.....	31
Section 6.0: Viewing Scores and Results	32
6.1. Centralized Reporting Overview	32
6.1.1. Group-Level Results.....	33
6.1.2. Student-Level Results	33
6.1.3. Item-Level Results.....	33
6.2. Accessing Centralized Reporting.....	33
6.3. Reporting Performance for NGSS-aligned IAs.....	34
Appendix A: Example Item Cluster	35
Appendix B: Example Stand-Alone Item	37
Change Log	38

SECTION 1.0: INTRODUCTION TO THE GUIDE

1.1. Intended Audience

This Interim Assessment Guide for Administration is intended for staff who have a role in the administration of, and review of results from, the HSA Science (NGSS) and Biology 1 (NGSS) interim assessments.

1.2. Purpose of the Guide

This document consolidates: the guidelines for administering the NGSS-aligned interim assessments for both non-standardized and standardized administrations; test security; accommodations and accessibility; and, reviewing results in the Centralized Reporting system (formerly known as AIRWays Reporting). These interim assessments can be administered flexibly by teachers to best meet their instructional needs (e.g., in a non-standardized manner).

1.3. Organization of the Guide

The guide is organized into the following sections.

- **Overview of the Interim Assessments:** an overview of NGSS-aligned items and the interim assessments.
- **Tasks to be Completed Prior to Administration:** the steps that need to happen before administering the interim assessments to students.
- **Administering the Interim Assessments Online:** an overview of the test administration site and the student testing site and how to complete important tasks and functions. Interim assessments are administered using the Hawai'i test delivery system via the TA Live Site with certified test administrators launching test sessions and students logging in through the Secure Browser.
- **Guidelines for Interim Assessments Test Security:** general security-related test rules and policies for the interim assessments which are “not secure” but “not public”.
- **Viewing Scores and Results:** an overview of the reports available in Centralized Reporting. Further information is available in the [Centralized Reporting User Guide](#) which can be accessed in the Reporting folder on the HSA Science (NGSS) or EOC Exams Resources page at alohahsap.org.

1.4. Training Tests

Training Tests allow students the opportunity to become familiar with both the testing environment and different kinds of test questions found on the new HSA Science (NGSS) and

Biology 1 (NGSS) assessments. They can be found in the Training and Practice Test folder on the HSA Science (NGSS) and EOC Exams portals under the Students and Families, Teachers, or Test Coordinators / Administrators pages at alohahsap.org.

1.5. HSAP Help Desk

The [Hawai'i Statewide Assessment Program portal](#) is the home for all interim assessments administration information.

For questions regarding the online testing system or for additional assistance, please contact the

Hawai'i Statewide Assessment Program Help Desk

Telephone: 1-866-648-3712

Email: hsaphelpdesk@cambiumassessment.com.

The Help Desk will be open Monday–Friday from 7:30 a.m. to 4:00 p.m. HST (except holidays) During these hours, staff will respond to your calls, voice mail messages, and emails as promptly as possible based on the order in which they are received.

The Help Desk may be contacted for situations and questions that include the following:

- testing system is not available; user accounts are not available or users are not able to administer tests;
- student information is incorrect or missing;
- loading student data or student settings into TIDE;
- preparing for online testing—downloading the secure browser, voice packs, etc.;
- tests showing as unavailable to students when they log in to begin testing;
- password resets for state, complex area, complex, and school users; and
- settings not presenting as intended.

When contacting the Help Desk, provide the representative with as much detail as possible about the issue(s) encountered and the system on which it occurred. This should include the following:

- type of device being used for the test;
- any error messages that appeared (code and description);
- operating system and browser information;
- network configuration information (consult with your Technology Coordinator for this information);
- your contact information for follow-up, including email address and phone number; and

- any relevant and authorized student and school information, including statewide student identifier (SSID), grade level, content area, and test name.

Policy-related questions may be directed to the Assessment Section.

Assessment Section

Assessment and Accountability Branch
Office of Strategy, Innovation, and Performance
Telephone: 808-307-3636
Fax: 808-733-4483

SECTION 2.0: OVERVIEW OF THE INTERIM ASSESSMENTS

2.1. HSA Science (NGSS) and Biology 1 (NGSS) EOC Exam

The grades 5 and 8 science assessments and the Biology 1 End of Course Exam beginning in school year 2020-2021 are aligned to the Next Generation Science Standards (NGSS) (<https://www.nextgenscience.org/>).

The NGSS-aligned interim assessments (IAs) are designed to support teaching and learning throughout the year. In addition, these assessments can be used to prepare students for this year's summative assessments. The IAs **each contain a single cluster item** (see the example in Appendix A) associated with a specific NGSS performance expectation. It is anticipated that, in the future, additional IAs will be available and that they will include both cluster items and stand-alone items (see the example in Appendix B).

2.2. Key Features of the Interim Assessments

The NGSS-aligned IAs allow teachers to check student progress throughout the year, so educators can use the results to inform instruction and help students meet NGSS proficiency. Key Features of the IAs include:

- The optional and flexible tests can also be used formatively (e.g., classroom discussion, small groups of students working on interim assessment items).
- IAs are available for Elementary and Middle Schools as well as the Biology EOC Exam.
- Students will be provided with the designated supports and accommodations identified in TIDE if administered through the TA Live Site with students logging in through the secure browser. It is recommended that students using these tools, supports, and accommodations be administered the Training Tests to familiarize themselves with the use of these tools prior to interim or summative testing.
- Students have up to five opportunities to take each IA throughout the school year. The IAs are fixed-form tests, which means that all students in the class will be presented with the same items and a student who takes an IA more than once will see the same items each time.
- Since each IA covers one NGSS performance expectation educators can use them during the school year more consistently with the sequence of their instruction.

The following factors should be considered when administering the interim assessments.

- **Multiple administrations:** Schools have the flexibility to re-administer IAs up to five times during the school year. These decisions should be made as part of larger

assessment context that includes the purpose of the interim assessment and how the data from the IA will be used to improve teaching and learning.

- **Fixed forms:** There is only one form of each IA. All interims are fixed-form tests so students who take an IA multiple times will see the same questions again. Exposure to and familiarity with test questions may affect student performance and the accuracy of interim results as an indicator of student’s knowledge and skills.
- **Grade levels:** IAs are comprised of item clusters aligned to the NGSS in elementary school, middle school, and high school life science. However, administering the IAs is not constrained by grade level. Students may take an off-grade-level IA to help inform educators on skills and knowledge of a student. Students in grades 3–5 are preset as eligible for all Elementary Interim Assessments and those in grades 6–8 as eligible for both Elementary and Middle School Interim Assessments.
- **Untimed:** IAs are untimed tests. Most students can be expected to complete an NGSS-aligned IA administered under a standardized administration in 10 to 15 minutes but some may take longer.

2.3. Administration Models

2.3.1. Standardized Administration

Standardized administration means that a student completes the IA individually, following the procedure for administration used for the summative assessments. Results from a standardized administration can be used as a gauge of student learning that is comparable across students. In this approach, the interim assessment is used as an assessment of learning after a period of instruction and results reflect an individual student’s mastery of the concepts assessed.

Information about the reliability and meaning of scores for these fixed form assessments applies only to the first time a test is administered under standardized conditions. Subsequent administrations, or results from collaborating with a class or teacher, alter the interpretation of results. The conditions of administration should be considered when interpreting results.

2.3.2. Non-standardized Administration

Non-standardized administration refers to any administration that is not consistent with the administration requirements of the summative assessment. Some examples of non-standardized administration might include (but are not limited to):

- Administering tests while students answer cooperatively in pairs, in small groups, or as a whole class. Teachers may elect to include some discussion time between test items.

- Providing access to classroom resources that may support the students' understanding of the assessed content.

Results from a non-standardized administration of the interim assessments are more appropriately used as assessment for learning (formative assessment process) rather than the assessment of learning. Because non-standardized administrations do not necessarily describe the performance of individual students in a comparable manner, caution must be used when making instructional decisions based on data from a non-standardized administration.

2.3.3 Criteria for Selecting Standardized Administration

The criteria for selecting the standardized option for a student is determined locally. Factors that may impact appropriateness include, but are not necessarily limited to, the extent to which:

- The test items have been exposed to students.
- The interim assessments were administered in a consistent manner across time.
- ***Educators and others who make inferences based on test results should have received adequate training in administering the interim assessments and in interpreting results.***
- A student with disabilities took the interim assessment in a manner consistent with the accessibility resources (e.g., accommodations) identified in his or her respective Individualized Education Program (IEP) or Section 504 Plan.
- A student identified as an English learner took the interim assessment with the necessary accessibility resources identified for use with statewide assessments.

The following table provides several examples of standardized and non-standardized administration of interim assessments.

Table 1: Examples of Standardized and Non-Standardized Administration

Standardized Administration	Non-standardized Administration
<p>Example 1: A teacher administers an IA to assess the degree to which students learned the emphasized skills at the completion of a unit of instruction.</p>	<p>Example 1: The teacher displays an item cluster from an IA that requires hand scoring. Using the Assessment Viewing Application, the teacher asks students to respond to the question on paper. The teacher may then score the responses using the scoring guides and use the results to inform next steps for instruction.</p>

Standardized Administration	Non-standardized Administration
<p>Example 2: A fifth grade teacher administers an Elementary NGSS-aligned IA as a pretest before beginning an instructional unit to determine students' prior knowledge. The teacher uses these results as a foundation for her instructional planning.</p>	<p>Example 2: A teacher asks students to work in small groups and discuss the questions in an IA as they take the test. This is followed with a whole-class discussion.</p>
<p>Example 3: A school pilots a new science to improve students' skills with science and engineering practices. The teachers administer the relevant IAs after a quarter of instruction grade-level IAs and, after reviewing the IA results, discuss any impact they've observed in student performance.</p>	<p>Example 3: A teacher administers an IA during instruction. The teacher projects the items on the screen and elicits answers from the class followed by a discussion about the reasoning behind student responses.</p>

In summary, interim assessments can be used in a variety of ways. They can be administered under standardized conditions, as described in the *Hawai'i State Science (NGSS) Assessments and End-of-Course Exams Test Administration Manual*. This manual can be found in the Test Administrator folder on the HSA Science and EOC Exams portal, in the Resources for Test Administration. Interim assessments can also be administered in a non-standardized manner. In addition, they may be used as a basis for class discussion or feedback but may not be used, displayed or distributed to individuals beyond authorized local education agency staff and students.

SECTION 3.0: PREPARING TO ADMINISTER NGSS-ALIGNED ASSESSMENTS

The NGSS-aligned interim assessments, although not secure tests, can be administered as proctored tests using the same procedures that are used for the HSA Science (NGSS) Assessments and End-of-Course (EoC) Exams.

Table 2: Personnel Who May Serve as Test Administrators

Personnel	Requirements
General education teacher (full or part time)	Must have a Hawai'i teacher license or credential
Special education teacher, including those hired (full or part time) by a private recruiting agency	Must have a teacher license or credential for Hawai'i or another state
School counselor	Must have a master's degree in counseling
Instructors	Must be teaching a class independently in a content area where there is a shortage of Hawai'i licensed or credentialed teachers
Long-term substitute teachers	Not required to have a Hawai'i teacher license or credential if they are teaching a class independently
Identified public charter school employees	Qualified teaching staff members
Test Coordinator	Must meet any one of the above requirements

3.1. Tasks to Complete Prior to Administration

In order to have a successful testing experience the following tasks should be completed prior to scheduling the assessments:

- TCs and TAs should verify that students are provided an opportunity to complete the Training Test prior to testing. This allows students the opportunity to become familiar with all of the item types, the universal tools, buttons, and any allowable designated supports and/or accommodations.
- Ensure that all TAs complete the online [TA Certification Course](#).
- Each student must be correctly assigned to his or her school and grade in TIDE. Incorrect student information must be updated in the Department's student information system (Infinite Campus) before the student can be tested. (Students can be administered off-grade interim assessments if set in TIDE).

- In addition to the correct school and grade, TCs, TAs, and Teachers should verify that all students have accurate test settings in TIDE, including designated supports and accommodations (embedded and non-embedded) based on individual student needs for each content area prior to testing.
- Work with technology personnel to ensure timely computer setup including: conducting network diagnostics, and downloading the latest version of the secure browser available at: <https://alohahsap.org/secure-browsers.stml>,
- Communicate with the TAs to identify the number of headsets needed for each testing location and ensure that the needed number is available for students who require text-to-speech.

3.2. Scheduling the Interim Assessments

3.2.1. Testing Times

Each IA will take students 10 to 15 minutes to complete. This does not include time for providing directions, logging in, etc.

3.2.2. Available NGSS-Aligned Interim Assessments

The available HSA Science (NGSS) and Biology 1 (NGSS) IAs appear in the following tables.

Table 3: HSA Science (NGSS) Elementary Interims

TDS Test Label	Item Description	Performance Expectation
Interim ES Earth and Space Science – Weather and Climate: 3-ESS2-1	Arizona Monsoon*	3-ESS2-1
Interim ES Life Science – Inheritance of Traits: 3-LS3-1	Checkered Chickens	3-LS3-1
Interim ES Life Science – Common Ancestry and Diversity: 3-LS4-1	Redwall Limestone*	3-LS4-1
Interim ES Physical Science – Forces and Motion: 3-PS2-2	Rubber Band Launch	3-PS2-2
Interim ES Earth and Space Science – Earth's Systems 1: 4-ESS2-1	Soil Erosion	4-ESS2-1
Interim ES Physical Science – Energy Transfer: 4-PS3-4	Door Alarm*	4-PS3-4

TDS Test Label	Item Description	Performance Expectation
Interim ES Physical Science – Waves Properties 1: 4-PS4-1	Boat at Dock	4-PS4-1
Interim ES Physical Science – Waves Properties 2: 4-PS4-2	Reflected Cat	4-PS4-2
Interim ES Physical Science – Waves Properties 3: 4-PS4-3	Light Messages	4-PS4-3
Interim ES Earth and Space Science – Earth's Systems 2: 5-ESS2-2	Chesapeake Bay*	5-ESS2-2
Interim ES Life Science –Ecosystems: 5-LS2-1	Terrarium Matter Cycle*	5-LS2-1
Interim ES Physical Science –Properties of Matter: 5-PS1-2	Sugar in Tea	5-PS1-2
Interim ES Physical Science – Chemical Reactions: 5-PS1-4	Expanding Balloon	5-PS1-4
Interim ES Physical Science – Forces and Interaction: 5-PS2-1	Gravity and Feather*	5-PS2-1

Table 4: HSA Science (NGSS) Middle School Interims

TDS Test Label	Item Description	Performance Expectation
Interim MS Earth and Space Science – Space Systems 1: ESS1-1	Lunar Eclipse*	MS-ESS1-1
Interim MS Earth and Space Science – Space Systems 2: ESS1-2	A Change in Orbit	MS-ESS1-2
Interim MS Earth and Space Science – Earth's History: ESS1-4	K/Pg Boundary	MS-ESS1-4
Interim MS Earth and Space Science – Earth's Systems 1: ESS2-1	Metamorphic Rock Ice Wedging*	MS-ESS2-1
Interim MS Earth and Space Science – Earth's Systems: ESS2-5	TN Weather	MS-ESS2-5

TDS Test Label	Item Description	Performance Expectation
Interim MS Earth and Space Science – Human Impacts on Earth Systems: ESS3-3	Bear Glacier	MS-ESS3-3
Interim MS Life Science – Structure and Function: LS1-3	Body's Response to Running*	MS-LS1-3
Interim MS Life Science – Matter and Energy in Organisms: LS1-7	Muscle Repair	MS-LS1-7
Interim MS Life Science –Information Processing: LS1-8	Startle Response	MS-LS1-8
Interim MS Life Science –Ecosystems: LS2-2	Hippos	MS-LS2-2
Interim MS Life Science – Inheritance of Traits 2: LS3-1	Monkeyflower Pollination*	MS-LS3-1
Interim MS Life Science – Inheritance of Traits 1: LS3-2	Jellyfish	MS-LS3-2
Interim MS Life Science – Natural Selection: LS4-4	Pocket Mice	MS-LS4-4
Interim MS Life Science –Adaptation: LS4-6	Bacterial Resistance	MS-LS4-6
Interim MS Physical Science –Properties of Matter: PS1-4	Whistling Tea Kettle	MS-PS1-4
Interim MS Physical Science – Chemical Reactions: PS1-5	Lead Iodide	MS-PS1-5
Interim MS Physical Science – Forces and Motion: PS2-2	Sliding Box*	MS-PS2-2
Interim MS Physical Science – Energy: PS3-3	Energy-efficient Window	MS-PS3-3
Interim MS Physical Science – Wave Properties 2: PS4-1	Guitar*	MS-PS4-1

TDS Test Label	Item Description	Performance Expectation
Interim MS Physical Science – Wave Properties 1: PS4-2	Tuning Fork	MS-PS4-2

Table 5: Biology 1 (NGSS) EOC Exam

TDS Test Label	Item Description	Performance Expectation
Interim HS Earth and Space Science – Human Impacts on Earth Systems 2: ESS3-3	Over Fished	HS-ESS3-3
Interim HS Life Science – Molecules to Organisms: LS1-2	Brain Freeze	HS-LS1-2
Interim HS Life Science – Structure and Function: LS1-3	Goldfish Gills	HS-LS1-3
Interim HS Life Science – Matter and Energy in Organisms: LS1-5	Geranium Photosynthesis	HS-LS1-5
Interim HS Life Science –Ecosystems: LS2-2	Oysters/Chesapeake Bay	HS-LS2-2
Interim HS Life Science – Inheritance of Traits: LS3-2	High Bone Density Pedigrees*	HS-LS3-2
Interim HS Life Science – Common Ancestry and Diversity: LS4-1	Red Pandas*	HS-LS4-1

3.3. Remote Administration of the NGSS Interim Assessments



The NGSS Interim Assessments will be available for in-person or remote administration starting on August 18, 2020. Remote administration of the interim assessments will be made available without students needing to use the secure browser. Cambium Assessment (CAI) and the Hawai'i Department of Education (HIDOE) Assessment Section have developed the [Guide to Remotely Administering Interim Assessments](#), to provide specific guidance on administering interim assessments remotely. This document is available on [Interim Assessments Resources](#) page on the AlohaHSAP portal.

SECTION 4.0: ADMINISTERING THE INTERIM ASSESSMENTS ONLINE



Use the following information and script to assist students with the login procedures. Please refer to the *Guide to Navigating the Online HSAP Administration* in the Test Administration folder on the HSA Science (NGSS) or EOC Exams Resources page at alohahsap.org to become familiar with the Online Testing System.



It is important for anyone with access to student information to remember that student personal information, including the student's SSID, is confidential. If materials containing student personal information and/or SSIDs are distributed to students, these materials must be collected before the students leave the testing room and either securely stored to be used in a subsequent test session or shredded. For guidance regarding student information and the remote administration of Interim Assessments, please refer to the [Guide to Remotely Administering Interim Assessments](#).



RECOMMENDATION: Consider printing this section to be used by the Test Administrator on the day of testing.



See Section [3.3. Remote Administration of the NGSS Interim Assessments](#) for information regarding the remote administration of these interim assessments.

The Test Administrator (TA) should verify the security of the testing environment prior to beginning a test session and must ensure that students do not have access to digital, electronic, or manual devices during testing.

Ideally, students taking the interim assessments will practice using the same accessibility supports that they will use during summative testing. For a full listing of available supports, their definitions, and suggestions for use, see the various Hawaii State Test Accommodations Guidelines, the Smarter Balanced Usability, Accessibility, and Accommodations Guidelines (UAAG) and Crosswalk of Accessibility Features Across State Assessments in Hawai'i (CAF). All of these can be found under the [Accessibility and Accommodations Resources](#) on alohahsap.org. IEP Teams should use these guides to engage in a thoughtful process of identifying appropriate accommodations on state tests for students with IEPs/504 Plans. These decisions should be based on individual student characteristics and needs. Once those have been identified, Test Coordinators will electronically submit the [Accommodations Request Form](#) to the Assessment Section. Designated supports can be set in TIDE at the school level by Teachers, Test Administrators, and Test Coordinators.

Please note that all ***Accommodations verified for SY 2019-2020 will be carried over for SY 2020-2021*** unless there have been changes to a student's IEP, in which case the Test Coordinator should contact the Assessment section.

To ensure that all students are tested under the same conditions, the TA should adhere strictly to the script for administering the test unless a student is assigned the non-embedded designated support or accommodation for Simplified Test Directions. These directions can be found in the boxes in bold on the following pages. When asked, the TA should answer questions raised by students but should never help the class or individual students with specific test items. No test items can be read to any student for any content area, unless the decision to provide the Read Aloud Designated Support or Accommodation has been made or rendered.

Please remember that the script must be followed exactly and used each time a test is administered except with students who are assigned the Simplified Test Directions non-embedded designated support as described in the *UAAG* and *CAF*. If the class is resuming a test and the TA is sure that all students can log in without hearing the login directions again, the TA may skip the italicized portions of the directions.

All directions that a TA needs to read to students are indicated by the word "SAY" and are in boxes so they stand out from the regular text. They should be read exactly as they are written, using a natural tone and manner. If the TA makes a mistake in reading a direction, the TA should stop and say, "I made a mistake. Listen again." Then the direction should be reread.

The TA should try to maintain a quiet environment, free from talking and other distractions. Before each test begins, he or she should encourage students to do their best.

Any time a student logs in to the testing system for an NGSS-aligned IA, the TA should follow this script.

4.0.1 Launch Secure Browsers



Prior to launching the secure browser, all other applications should be closed.

A secure browser is required to access the NGSS-aligned interim assessments. The secure browser provides a secure environment for student testing by disabling the hot keys, copy, and screenshot capabilities and access to the desktop (Internet, email, and other files or programs installed on school machines). Prior to launching the secure browser, all other applications should be closed. The secure browser will not display the IP address or URL for the secure testing website. Users cannot access other applications from within the secure browser, even if they know the keystroke sequences. The "back" and "forward" browser options are not available, except as allowed in the testing environment as testing navigation tools. Students will

not be able to print from the secure browsers. During testing, the desktop is locked down, and students must “Pause” (to save the assessment or exam for another session) or answer all test items and complete the assessment or exam in order to exit the secure browser.

Before students arrive to take an assessment, make sure that the student login screen is showing on each computer. Click the HSAP Secure Browser icon on each computer to open the secure browser. It is recommended that Test Administrators rather than students launch the browsers in order to prevent students from accessing other applications. Once the secure browser is launched, students can no longer access other applications.

In the event of technical difficulties with the secure browser, contact your technology coordinator or the HSAP Help Desk.

4.0.2. Distribute Materials

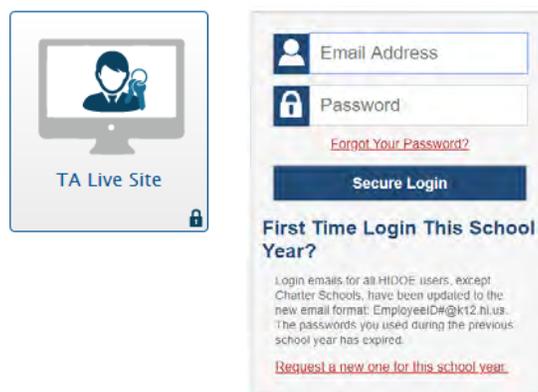
Distribute any needed materials, such as pencils, scratch paper and headphones. You may wish to plug in headphones ahead of time so that you do not need to pass them out during the test session.

4.1. Starting a Test

The TA must create a test session before students can log in to the Student Testing System **(but no more than 30 minutes prior or the system will time out)**. When a TA creates a test session, a unique session ID is randomly generated. This session ID must be provided to the students before they log in and should be written down. TAs should follow these steps to create a session:

1. The TA logs in to the TA Interface.

The TA accesses the TA Interface via the TA Live Site card at <https://hsa.alohahsap.org/>. The TA then enters his or her username and password and clicks **[Secure Login]** to log in to the TA Interface.

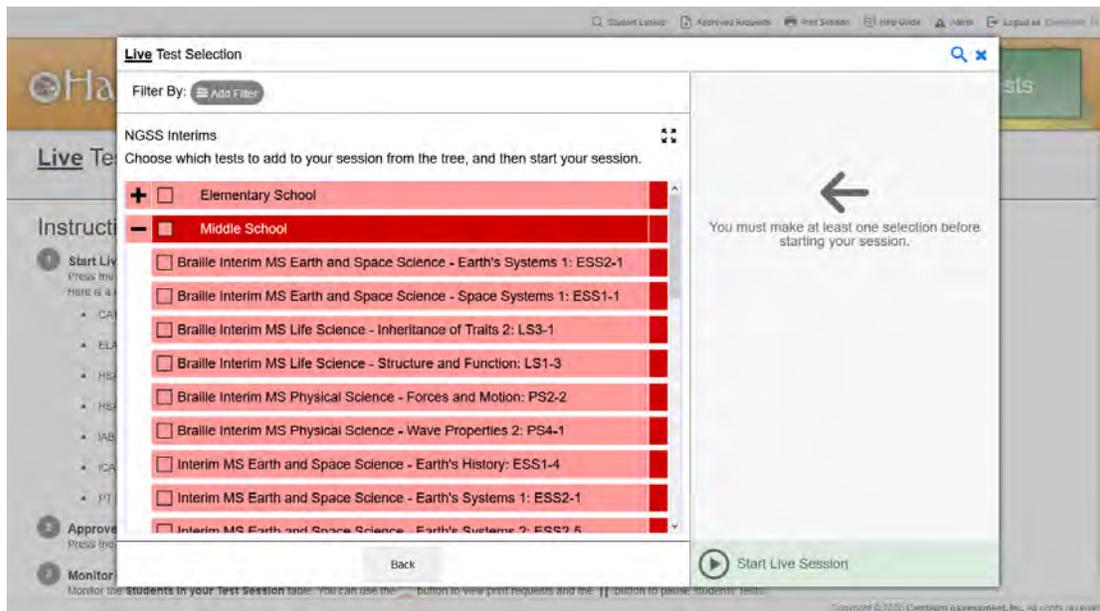


2. The TA creates a test session.

When you log in to the TA Interface via the TA Live Site card, the Test Selection window opens automatically. This window allows you to create a test session, select the particular test(s) to be administered in the test session. All of the interim assessments are available through the [TA Live Site](#). Interim assessments can be “filtered” by test and subject.



Students will only be able to see and access those selected tests for which they are eligible in TIDE.

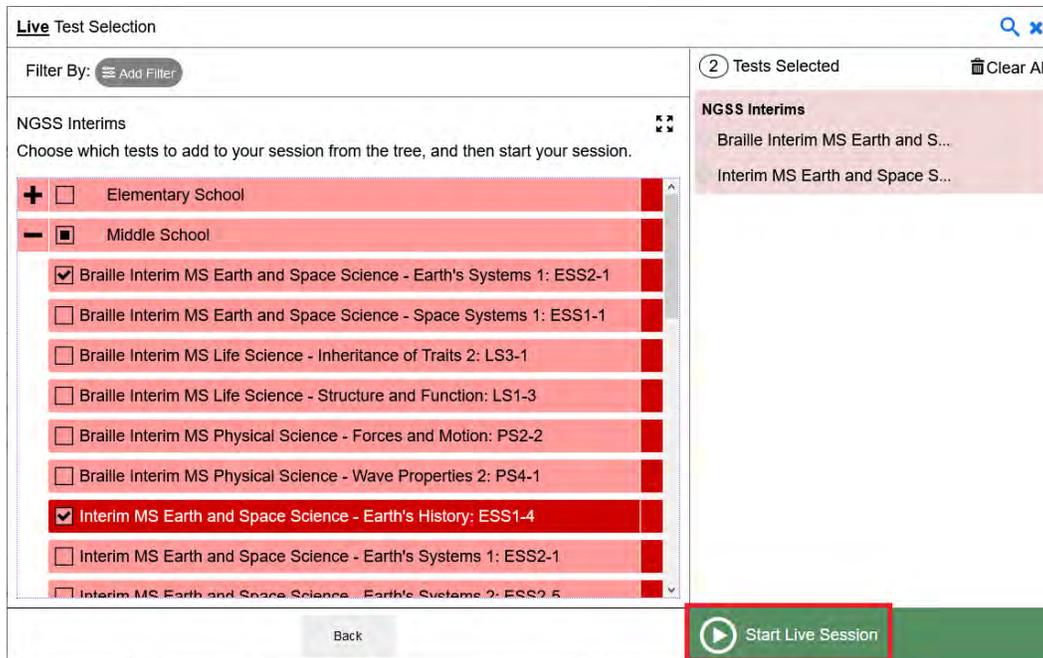


3. The TA begins the test session.

After clicking on the assessment(s) to be administered during the test session, the TA clicks on the **[Start Live Session]** button to begin the test session and generate the session ID that students use to join that test session.

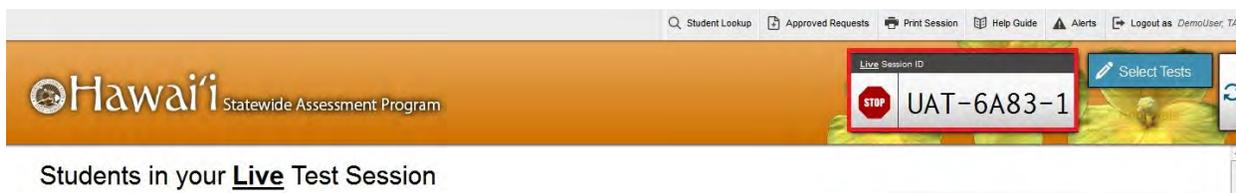


Although the interim assessments are considered non-secure tests, the administration procedures for the summative assessments, including electronic device policies, should be followed.



4. The TA informs students of the test session ID.

The system-generated session ID appears in the top-right corner of the screen.



Write the Session ID clearly on the chalkboard or whiteboard or somewhere else where students will be able to see it. Students must enter the Session ID exactly as it is written, without extra spaces or extra characters, in order to log in.

Test sessions must be created on the day of testing, not before. This prevents potential test security problems. Students from the same class who take tests at different times or with different Test Administrators do not need to use the same Test Session ID.

This script has been modified specifically for the HSA Science (NGSS) and Biology 1 (NGSS) Interim Assessments. Since each NGSS-aligned interim assessment contains a single cluster item, the script is based upon students having **one test session to complete the cluster**.

The modified script should **not** be used when administering any other test. **The script in the [HSA Science \(NGSS\) and EOC Exams Test Administration Manual 2020-2021](#) should be used for all summative HSA Science (NGSS) and End of Course Exams.**

The script should be read in its entirety prior to a student logging in.

SAY: Today, you will take a test a NGSS-aligned Science Interim Assessment. You will be given a test session ID that is required to start the test. Before logging in, let's go over some test rules.

You may only use the computer to take this test. You may not use the computer for another reason before, during, or after testing.

SAY: Take your cell phone and any other electronic devices out of your pocket, backpack, or bag and turn it off. Do not leave it on or place it on silent mode. If you have a backpack or bag, place the turned off phone or device in your backpack or bag and place it in the area I have designated. If you do not have a backpack or bag, bring your phone or device to my desk and place it in the area I have designated. Your phone or device will be returned to you at the end of the test session. If you do not follow these test security directions and you use your phone or device during the test session for any reason, your test will be invalidated, your parents will be informed of your behavior and any consequences that will be determined by the principal.

During Testing

Today's test will consist of one item cluster. You must answer each question before going on to the next one. Go ahead and provide what you think is the best answer even if you are unsure and go on to the next part of the cluster. If you would like to review that answer, you may go back and change the answer during this test session.

If students are expected to complete the item cluster in one session:

SAY: All parts of the item cluster should be completed during this test session.

SAY: If you have a question or need help with something during the test, raise your hand and I will come to you. You should answer all parts of the cluster during this test session.



NOTE: If a school has a more stringent cell phone policy, then that policy may be stated in place of the minimum cell phone test security requirements stated above.

SAY: Please write your name on the scratch paper. I will collect all papers at the end of this session.

SAY: You may pause at any point in the test by clicking PAUSE. Please raise your hand if you need a break and ask permission before clicking PAUSE.

SAY: Your answers need to be your own work. Please keep your eyes on your own test and remember, there should be no talking. If you still have a cell phone or an electronic device, please turn it off, raise your hand and I will come and collect it before the test begins.

If you finish your test early, review your answers. Once you have done so, submit your test and log out. You must sit quietly in your seat until dismissed. You may not use the computer for any reason.

Give students the test session ID and other log-in information. The test session ID, the statewide student identifier (SSID), and the student's first name may be provided to students ahead of time on a card or piece of paper to help them type it in the computer accurately. Student information is confidential; therefore, the cards/papers with this information must be collected and securely stored after each test session and securely shredded after all testing has been completed. **The TA should write down the session ID for his or her own records, in case he or she gets involuntarily logged out of the system.** The TA will be logged out of a test session if there is no activity for 30 minutes by the TA or a student. Having the session ID will allow the TA to resume the test session.

TAs may also write the test session ID on a classroom chalk board or another place where students can see it. Make sure students know that the test session ID must be entered exactly as it is written—it is case sensitive—without extra spaces or characters. Please refer to the *Guide to Navigating Online HSAP Administration* in the Resources > Test Administration folder on the HSA Science (NGSS) or EOC page at alohahsap.org to become familiar with the Online Testing System.

SAY: Now we are ready to log in. Once you have logged in, you will have to wait for me to approve the test before you start. I'll be checking that you have correctly entered the test session ID and other information.

SAY: Enter your legal first name, not your nickname, followed by your SSID number. Then enter the test session ID. *Raise your hand if you need help typing this information on your keyboard.*

Now click “Sign In.” Make sure that your personal information on the next screen is correct and click YES to continue. If it is not correct, raise your hand.

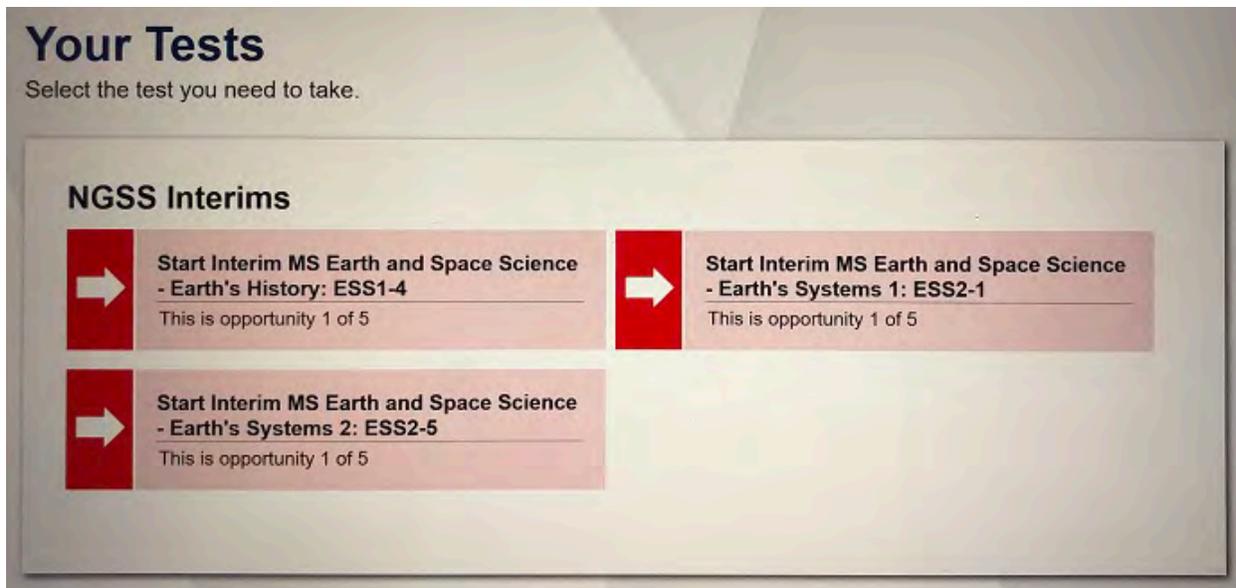
Ensure that all students have successfully entered their information. The TA should ensure that the students use their legal first names, not nicknames. If a student is unable to log in, he or she will be prompted to try again and provided with a message describing the reason (an invalid SSID, for example). If the student is still having difficulty, the TA can look up the correct information using the Student Lookup function on the TA Interface or TIDE. TAs may assist students with logging in if necessary.

Student information could also be provided to students ahead of time on a card or piece of paper to help them type it in the computer accurately. Test tickets with students’ legal name and 10-digit State Student Identification Number (SSID) number can be printed from the Students Section of Preparing for Testing in TIDE at www.hitide.org/. However, please remember that SSIDs are confidential information and papers or cards need to be collected and stored in a secure location after each test session. The papers or cards must be shredded after testing has been completed.

If the information in the online testing system is incorrect for a student, the student’s information must be updated in the Department’s student information system by your school’s office or registrar. Information from that system will then automatically be transferred into the online HSAP system. Typically, it will take 48–72 hours for updated information from the student information system to be updated in the online HSAP system. Please contact your Test Coordinator if a student’s personal information is displayed incorrectly and you need assistance.

5. The TA informs students of the test session in which they are participating.

SAY: On the next screen, select the [INSERT NAME OF TEST], and then click START TEST. After you have selected your test, you will see a screen with a moving bar and message saying that you are waiting for Test Administrator approval.



Students may be able to select from more than one test. TAs should direct students to select the appropriate test name based on what the TA is planning to administer at that time. Students will see only assessments for which they are eligible.

6. The TA views and approves students who are waiting for test session approval.

After students have selected a test, the TA verifies that each student selected the appropriate test before approving that student for testing. **It is very important that the TA pays close attention to the test name prior to approving to be sure it is the correct test to be administered at that time.**



Accidentally selecting and starting a summative assessment will start the clock on these assessments (days for the HSA Science Assessment), regardless of whether or not the TA or teacher intended to start these tests.

- a. Select the [Approvals #] button.

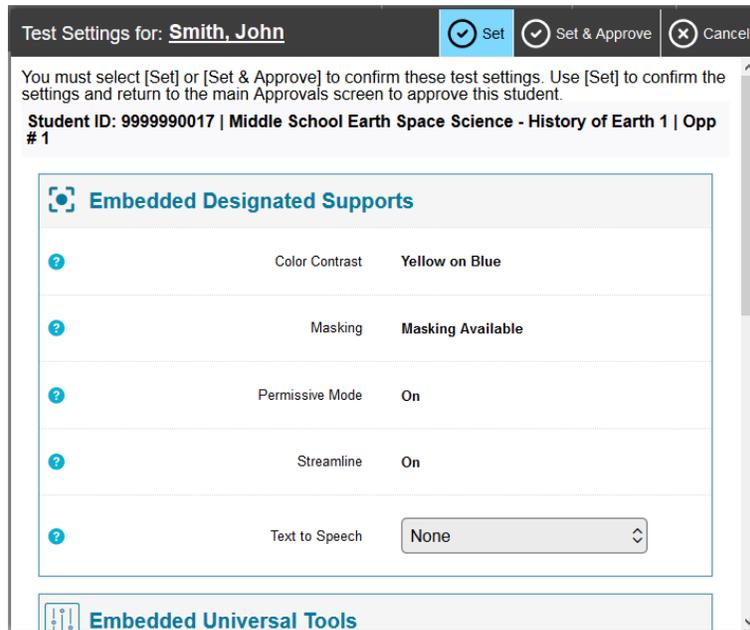
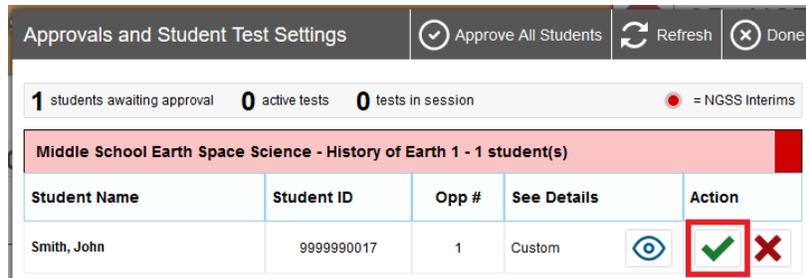


- b. A new window opens that shows a list of students, organized by test name. The TA should review the list to ensure that students are taking the correct test.

- i. If a student selected a test other than the one the TA plans to administer to that student that day the TA must deny the student entry to the test session. The student may then log in again and select the correct test.

NOTE: Administering a summative test instead of an interim test is a testing irregularity and needs to be addressed in Testing Incidents in TIDE. Administering an interim test instead of a summative test is not a testing irregularity but will require students to retest at a later time to complete summative testing.

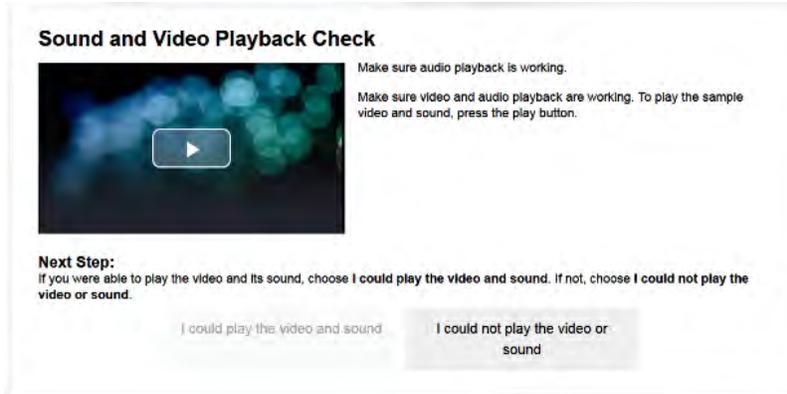
- c. The TA should also review the test settings assigned to each student to ensure that they are correct.
 - i. If a student's settings are incorrect, do not approve that student to begin testing. Depending on the setting, the TA will need to work directly with the Test Coordinator (TC), the student's Teacher, and/or the Assessment Section to correct the test settings in TIDE before approving the student to begin testing. *(Reminder: It may take up to 24 hours for changes to appear in the TA interface.)* Please see the [TIDE User Guide](#) for additional information on correcting student test settings.
 - ii. A designated support may be changed for a student after testing has begun; however, the student's test will need to be paused and he or she will need to log out of the test session in order for the TA to change the designated support in the TA Live Site. The TC may change the designated support in TIDE. The updated designated support will take effect once the student logs back into the test session.
 - iii. The Language selection may not be changed after a student has begun a test opportunity. Once a student has started an online assessment in English, Braille or Spanish the setting cannot be changed. If a student has started a test opportunity with the incorrect Language feature, the student's test should be immediately paused, and the Test Coordinator should contact the HSAP Help Desk for further assistance.
- d. When the correct test is selected and test settings are verified, the TA clicks [] for each student or [Approve All Students]. **The TA should only click Approve All Students if he or she confirms that the content area, type of test, and test settings for each student are correct.** Test settings, designated supports in particular, can be set by the TA if necessary and appropriate.



SAY: After I approve you to begin testing, you will see a screen asking you to check your test content area and settings. If all the information is correct, you may select YES, START MY TEST. If any of it is incorrect, please raise your hand.

Each student will be logging in at a different time. The TA should monitor the sessions and log in all students who are currently ready before assisting any students who are having problems.

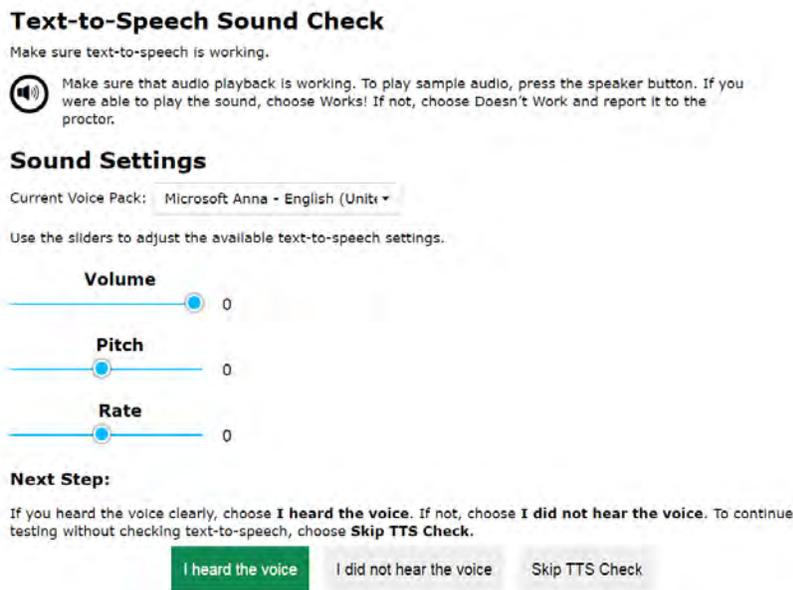
SAY: Next you should see a screen that prompts you to verify that the sound on your computer is working. Put your headsets on and click the icon of the speaker in the circle to hear the sound. If you hear the chime, click [I heard the sound]. If not, raise your hand.



If students will be using Text-to-Speech during the test session, read the next blue box so the students will know how to verify that their headsets are working properly.

[The following should be read for test sessions where any students have the Text-to-Speech designated support]

SAY: Next, if you have the Text-to-Speech designated support is available, you should see a screen that prompts you to verify that the sound on your computer is working. Put your headsets on and click the icon of the speaker in the circle to hear the sound. If you hear the chime, click [YES]. If not, raise your hand



If a student's volume is not working, troubleshoot basic steps such as ensuring that the headset is fully plugged in, mute is not inadvertently selected, and the volume setting is turned up. If the student is still experiencing issues, contact your School Technology Coordinator or the HSAP Help Desk at 1-866-648-3712 or hsaphelpdesk@cambiumassessment.com.

SAY: Before your test appears, you will see an Instructions and Help page, which contains a Test Settings option and a Help Guide option. The Test Settings option may be used to review your test settings. The Help Guide may be used to review the test tools and buttons that will be available during the test or that will appear on the test. You can also find this information during your test by clicking the question mark button in the top right corner.

When you are ready to begin your test, click **BEGIN TEST NOW** at the bottom of the page.

7. The TA Monitors test progress.

Monitoring Test Selection

It is very important that TAs monitor student progress throughout the test session. This includes verifying that students are participating in the appropriate test. The TA monitors the test each student is taking by referring to the Students in Your Test Session table in the TA Interface.

In the event a student is taking an incorrect test, the TA can pause the student's test. The TA should then instruct the student to log out and log in again to select the correct test.

In the rare event that a student starts a summative HSA Science test unintentionally, the test's 45-day expiration timeline will be activated.

Monitoring Test Sessions

Once students have started their tests, the TA should circulate through the room to ensure that all conditions of test security are maintained. Incidences of cheating or other inappropriate behaviors should be addressed at the school level.

Student Directions During Testing

TAs and proctors may not advise or assist students during test sessions, such as:

- provide reminders of test taking strategies,
- advise a student to use scratch paper,
- provide hints on problem solving techniques,
- remind students to review work,
- provide guidance on pacing (speed up or slow down).

If you notice that a student is off task, you may read the statement below **verbatim**.

SAY: It is important that you do your best. Do you need to pause the test and take a break?



If a student is not actively engaged with the test, the TA may pause the student's test and should consult with the TC to determine if additional test sessions are appropriate. TAs are not required to provide additional test sessions for a student who has exceeded the average test taking time and is not actively engaged in the test.

If a student is concerned about an item, you may direct the student to review a tutorial by reading the script below **verbatim**.

SAY: Try your best and choose the answer that makes the most sense to you. If you are unsure about how a question works, you can select Tutorial from the context menu to view a short video.

Allowing the students to practice on the Training Test prior to testing is strongly encouraged to ensure that students are able to manipulate each item type and use the various tools and supports during testing.

IMPORTANT:

- If the TA is using the TA Interface and navigates to another CAI system (TIDE, Centralized Reporting, etc.) the session will stop, and all students in the session will be logged out.
- If the TA Interface or TA training site browser is accidentally closed while students are still testing, the session will remain open until it times out after 30 minutes. (Inactivity is different from pausing a test. The Pause Rule is 20 minutes). Before 30 minutes have elapsed, the TA can open the browser and navigate back to the TA Interface. The TA will be prompted to enter the active session ID and re-enter the test session.
- As a security measure, TAs are automatically logged out of the TA Interface after 30 minutes of TA user inactivity (defined as clicking the  button or navigating to any part of the TA Site) and/or student inactivity (defined as selecting an answer or navigation option in the test) in the test session, which will result in closing the test session. If this occurs, the TA will have to create a new session and the students will have to log in to the new session to resume testing. When starting a new session, the TA should give the students the new session ID so that they can log in and resume testing. Please note that students will not be able to return to CAT items from previous sessions, even if the responses were marked for review.

8. The TA ends the test session and logs out of the Test Administrator Site.

When there are approximately ten minutes left in the test session, the TA should give students a brief warning.

If this will be the only session for this test:

SAY: There are 5 minutes remaining in this test session. Be sure to answer all parts of the cluster. If you have answered all parts of the cluster, you may review any of your responses now.

If there will be additional session for this test:

SAY: There are 5 minutes remaining in this test session. You may review any completed or marked items now. Do not submit your test unless you have answered all of the questions. If you have not finished the test, you will have a chance to answer the rest of the test questions on another day.

SAY: If you need additional time let me know.

After answering the last item in each segment, each student is presented with a screen prompting him or her to review answers (marked and unmarked) for all items available to the student or prior to submitting the test.

After answering the last question students must pause or submit their tests. Once a student clicks [**Submit Test for Scoring**], the student will not be able to review answers. Students must then click [**Log Out**] to exit the testing site. Students who have not finished can click [**Pause**].

If this will be the only session for this test:

SAY: This session is ending. Click [**Submit Test For Scoring**]. Then click [**Log Out**]. I will now collect any scratch paper or other materials.

If there will be additional session for this test:

SAY: This test session is now over. If you have answered all the questions on your test and have finished reviewing your answers, click [**Submit Test For Scoring**]. Then click [**Log Out**]. If you have not finished, click [**Pause**], and you will be able to finish at another time. Then click [**Log Out**]. I will now collect any scratch paper or other materials. Please be sure your name is written on your scratch paper.

TAs should click [**Stop Session**] to end the test session and pause any student test in the session that is still in progress. When finished, TAs can log out of the TA Interface by clicking the [**Logout**] button at the top right. TAs should also collect any used scratch paper (and graph paper for grades 6 and up).

4.2. Sensitivity Responses

4.2.1. Taking appropriate action with student responses or student actions that cause concern

Throughout the test administration process, student safety is always the primary consideration.

During testing, TAs may encounter student actions that disrupt the assessment administration and may endanger the student or others. In addition, it is possible that TAs will encounter student responses to questions or notes on scratch paper that necessitate some action to ensure student safety.

Security protocols make it clear that TAs are not permitted to review student responses in the testing interface or students' notes on scratch paper. However, during or after the assessments, a TA might unexpectedly encounter a student response that raises sufficient concern to warrant adult action. Topics that may require the TA to take action include, but are not limited to, student references to:

1. Suicide
2. Criminal activity
3. Alcohol or drug use
4. Extreme depression
5. Extreme violence
6. Sexual assault or physical abuse
7. Self-harm or intent to harm others
8. Neglect
9. Bullying

4.2.2. Collecting information

Prior to administration, each TA should have a thorough understanding of school and/or state policies regarding documentation of student actions or concerning responses during a secure test event. The TA should document as much information as possible in accordance with school, and/or state policies.

4.2.3. Escalating information

Should the TA encounter a sensitive situation while supervising the test session, the TA should immediately escalate this concern to the test coordinator or principal in accordance with school policies and procedures.

SECTION 5.0: GUIDELINES FOR INTERIM ASSESSMENTS TEST SECURITY

Interim assessments can serve a variety of educator needs. To better support the range of possible uses consistent with school policies and procedures, educators may establish the timeframe, administration policies, and local scoring practices for interim assessments. The interim assessments are designated as student and teacher facing. This designation means that educators have the flexibility to access the test questions and their students' responses to the test questions. Educators may use the interim assessments for the formative assessment process to improve teaching and learning. Because of this flexibility, the interim assessments are not intended to be used for accountability purposes.

Interim assessments are not for public use, display, or distribution. For this reason, any use, display, or distribution of the interim assessments that results in access to individuals beyond authorized local education agency staff and students is prohibited. Finally, interim assessment items must not be copied into third party systems without the permission.

5.1. Responding to Testing Improprieties, Irregularities, and Breaches

Since interim assessments are not intended to be used for accountability purposes, most testing improprieties, irregularities, and breaches are not reported during an interim assessment administration. Unlike the summative assessments, teachers may discuss interim test items with students or other educators in the school and may use interim test items for instructional purposes.

There are two exceptions to this general policy:

- **Testing Irregularity:** A Test Administrator accidentally administers a summative assessment instead of an interim assessment. This testing irregularity is typically reported to the School Principal and TC immediately, and forwarded to the Assessment Section within 24 hours and entered into TIDE should a testing incident request be required.
- **Breach:** An adult or student shares interim items publicly. Incidents that are considered breaches for interim assessments include the following:
 - Adult or student posting interim test items or stimuli on social media (Twitter, Facebook, etc.).
 - Adult allowing students to take home copied or printed test items, stimuli, or scratch paper that was used during the test. This includes the use of photocopiers or digital, electronic, or manual devices to record or communicate a test item.
 - Adult or student posting interim test items in a third-party system (e.g., a student information system or local database).

- Adult displaying or distributing interim assessment items that results in access to individuals beyond authorized local education agency staff and students (e.g., posting on a classroom webpage or putting them into a homework packet).

These inappropriate uses of interim items may prevent a teacher from a different school, complex, or complex area from using an interim assessment for their planned purpose. A breach incident must be reported to the School Test Coordinator immediately. The School Test Coordinator is responsible for notifying the HIDOE Assessment Section at 808-307-3636.

5.2. Electronic Devices

For standardized administration conditions, students should only have what is needed and allowed for testing on their desks, unless a device is needed for medical monitoring as described in the [Smarter Balanced Usability Accessibility and Accommodation Guidelines](#). All other student belongings should be placed in the location identified by the Test Administrator.

For standardized and non-standardized test administrations, no digital, electronic, or manual device may be used to record or retain test items or stimuli (reading passages). Similarly, these materials may not be shared using email, social media websites, etc. This is consistent with the interim assessments being “student and teacher facing” only and the information provided in section [5.1. Responding to Testing Improprieties, Irregularities, and Breaches](#)

5.3. Scratch Paper

Scratch paper is a non-embedded universal support for students to take notes, write computations, or develop draft responses. Scratch paper should be provided to students for all of the interim assessments.

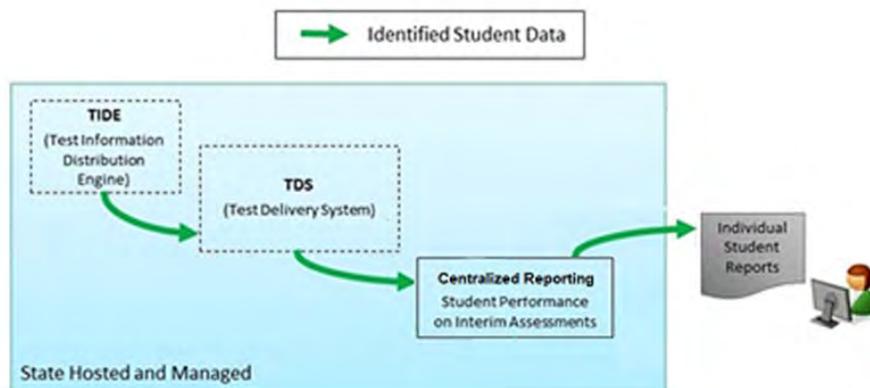
For a standardized interim assessment administration, the teacher may either destroy scratch paper or securely store it after each test session, if the teacher plans to use student notes after testing for instruction.

Work that students do on scratch paper for interim assessments may contribute to classroom discussions, (e.g., compare first drafts to later versions of a writing response). It may also help inform teacher’s next steps in instruction or be used in a Professional Learning Community within the school environment. In all cases, the scratch paper must be kept securely and should be destroyed/shredded when the instructional use ends.

SECTION 6.0: VIEWING SCORES AND RESULTS

Interim Assessment results will be available in Centralized Reporting after tests have been submitted by a student and all the responses have been combined to generate a report.

Flow of Test Data During Standard Administration



The Centralized Reporting system can be accessed at: <https://hsa.alohahsap.org/users/test-administrators.stml> using your TIDE user name and password. The *Centralized Reporting User Guide* can be found in the Reporting folder on the HSA Science (NGSS) or EOC Exams Resources page at alohahsap.org.



Centralized Reporting provides detailed information regarding school, class, and student results for the Interim Assessments. The system includes the student responses to Interim Assessment items.

6.1. Centralized Reporting Overview

Centralized Reporting provides student performance reports for interim assessments. Centralized Reporting consists of a **Dashboard** page and various Assessment Reports. The **Dashboard** provides a summary of all the assessments associated with a particular user or institution, and the Assessment Reports provide detailed performance data for each of the assessments.

Assessment Reports are available at various levels within a complex. Access to each Assessment Report depends on your user role.

Below is a brief description of each level of results.

6.1.1. Group-Level Results

Group-level results can help educators evaluate the degree to which they may need to adjust their instruction by analyzing in which areas students are excelling and for which they may need additional support. The definition of a group is locally defined. Some examples are:

- A teacher's classes
- The group of students who received similar instruction or who participates in a specific program (e.g., intervention or enrichment)

The reporting system allows users to establish customized groups or to display results by grade-level, demographic category, education status (e.g., IEP, EL) within a particular school.

6.1.2. Student-Level Results

Student-level results provide a roster of students with each student's raw score on a selected IA.

6.1.3. Item-Level Results

Item-level results provide student responses to test questions and enable educators to evaluate any patterns in responses by looking at which items the group did well on and on which items they struggled. The item-level view for an individual student shows the disciplinary core idea, performance expectation, rubric(s), scoring assertion(s) the maximum score, and the student's score for the item in the cluster. In addition, users can view scoring rubrics and student responses. Answer keys are also available in [TIDE](#) under Resources.

6.2. Accessing Centralized Reporting

Access to the reports and features available in Centralized Reporting depends on your user role in TIDE. All users may access the Student Portfolio Report.

- Teachers can access the Teacher Assessment Report and Student Assessment Report.
- Principals and Test Coordinators can access the School Assessment Report, Roster Assessment Report, and Student Assessment Report.
- Complex staff users can access the District Assessment Report, School Assessment Report, Roster Assessment Report, and Student Assessment Report.

See the *Centralized Reporting User Guide* for more detailed information about user roles. The *Centralized Reporting User Guide* can be found in the Reporting folder of the HSA Science (NGSS) or EOC Exams Resources page at alohahsap.org.

6.3. Reporting Performance for NGSS-aligned IAs

NGSS-aligned IAs are reported as raw scores (the number of points earned out of the total number of possible points) Centralized Reporting includes the item cluster, student responses, scoring assertions, and scoring rubrics

AIR Ways

Hawaii Statewide Assessment Program

User: 20107498@k12.hi.us | Role: SC @ state: Hawaii Department of Education

Dashboard

Filtered By Test Reason: All Test Reasons

Assessment Name	Test Reason	Student Count	Average Score	Date Last Taken
Middle School Earth Space Science - History of Earth 1	Unassigned	1	1/7	09/24/2019
Biology EOC (NGSS) Science - Human Sustainability	Unassigned	1	0/8	09/24/2019
Middle School Earth Space Science - Space Systems 1	Unassigned	1	3/10	09/24/2019
Elementary School Earth Space Science - Weather and Climate	Unassigned	1	1/6	09/24/2019
Biology EOC (NGSS) Life Science - Interdependent Relationships in Ecosystems	Opportunity 2	1	0/7	09/24/2019
Middle School Life Science - Natural Selection and Adaptations 2	Unassigned	1	5/11	09/23/2019

Student	Student ID	Total Score	Total Items	Total Items										
				Item Numbers, Max Points and Points Earned										
				1	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	
				11 pt	1 pt	1 pt	1 pt	1 pt	1 pt	1 pt	1 pt	1 pt	1 pt	
My Students		5/11		5	0	0	0	1	1	1	1	1	0	
Lname, Fname	9876510060	5/11		5	0	0	0	1	1	1	1	1	0	

Middle School Life Science - Natural Selection and Adaptations 2

Student: Lname, Fname

Current Item : 1 Score : 5/11

Item & Score	Rubric & Resources
7. The student selects Type B bacteria for "Decrease in percentage of population," providing some evidence of an ability to use data to infer likely changes in the distribution of traits in the population.	✓
8. The student selects Type A bacteria as having an advantage that allowed them to survive more easily OR Type B bacteria as having a disadvantage that made it hard for them to survive, providing some evidence of an understanding of how advantageous or deleterious traits can affect a population in a changing environment.	✓
9. The student selects "reproduce more often" if Type A was selected in the first blank, or "reproduce less often" if Type B was selected in the first blank, providing some evidence of an understanding of how advantageous or deleterious traits affect populations in changing environments.	✗
10. The student selects "natural selection," providing some evidence of an understanding of the process of advantageous or deleterious traits acting on a population in a changing environment.	✗
11. The student selects "the percentages of bacterial populations in later generations," providing some evidence of an ability to compile, from given information, the data needed for a particular inference about the relationship between changes in the environment and changes in the traits of a population.	✗

student setting(s) OFF

A petri dish has two types of bacteria. Type A bacteria are resistant to a certain antibiotic, meaning they cannot be killed by it. Type B bacteria are not resistant to this antibiotic, and can be killed by it. Almost all of the first generation bacteria are Type B. Very few Type A.

When the antibiotic is placed in the petri dish, the percentages of Type A and Type B bacteria in the population change. No major changes were seen for the first 10 generations.

Part A

Click on each blank box and select a word or number to complete the sentences.

From the 10th to the 50th generation, the percentage of Type A bacteria by percentage points.

From the 10th to the 50th generation, the percentage of Type B bacteria by

APPENDIX A: EXAMPLE ITEM CLUSTER

This cluster, called Yellowstone Ecosystem, is designed for middle school addressing the Performance Expectation MS-LS2-4: Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations. This page presents the phenomenon. The following has the associated parts of the cluster.

Willow populations in Yellowstone National Park have increased since wolves were reintroduced to the park in 1995.

Willows are small trees that grow best in marshlike environments. After studying the Yellowstone food web shown in Diagram 1 and the population data for the park shown in Table 1, students arrive at two different hypotheses.

Diagram 1. Yellowstone Food Web

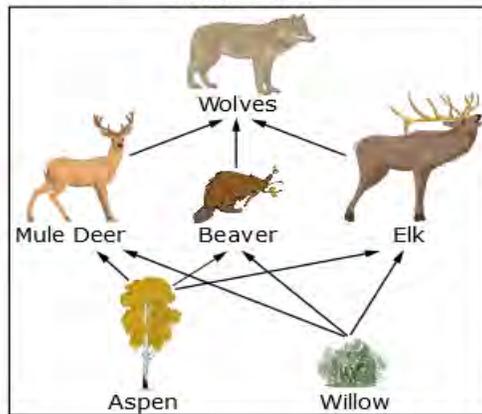


Table 1. Yellowstone Population Data

	Wolves	Elk	Beaver	Mule Deer
1995	31	16,791	10	2,014
2004	171	8,335	120	2,014

Hypothesis 1:

When wolves were reintroduced to Yellowstone, the wolves preyed upon the elk, which allowed the beavers to eat more willow. This led to more beavers and beaver dams. Beaver dams create marsh environments that willows do well in, allowing the willow's population to increase.

Hypothesis 2:

When wolves were reintroduced to Yellowstone, they preyed upon all animal species that ate plants. With fewer plant-eating animals eating willows, fewer willow plants were eaten and the population of willow plants increased.

Your Task

In the questions that follow, you will analyze and evaluate these two competing hypotheses.

Part A

Click on each box and select a word/phrase that completes the table with the Yellowstone population data from 1995 and 2004 and the hypothesis those data support.

Table 2. Summary of Yellowstone Population Data and Supported Hypotheses

Data	Hypothesis Supported
Elk population <input type="text"/>	<input type="text"/>
Beaver population <input type="text"/>	<input type="text"/>
Mule deer population <input type="text"/>	<input type="text"/>

- increased
- decreased
- had no change

Part B

Which hypothesis is best supported by the evidence?

- A All of the evidence is consistent with Hypothesis 1.
- B All of the evidence is consistent with Hypothesis 2.
- C Most of the evidence is consistent with Hypothesis 1.
- D Most of the evidence is consistent with Hypothesis 2.
- E The evidence does not favor either hypothesis.

- Supports Hypothesis 1
- Supports Hypothesis 2
- Supports both hypotheses
- Supports neither hypothesis

- preyed on by wolves
- it has the same prey as wolves
- its consumers are preyed on by wolves
- it is not preyed on by wolves

Part C

Aspen trees are shown in Diagram 1. Moose and bison are two plant-eating animal species that are not shown in Diagram 1 but are also part of the Yellowstone food web.

Based on Hypothesis 2, click on each box to select a word/phrase to make a prediction about what would happen to the moose, bison, and aspen tree populations after the reintroduction of wolves.

Table 3. Population Predictions

Species	Population after Wolf Reintroduction	Reason for Impact on Population
Moose	<input type="text"/>	<input type="text"/>
Bison	<input type="text"/>	<input type="text"/>
Aspen tree	<input type="text"/>	<input type="text"/>

- increase
- decrease
- stayed the same

Part D

Based on Hypothesis 1, and the information in Diagram 1, Table 1, and Table 3 from part C, click on each box to select **two** different predictions.

Table 4. Population Predictions

Prediction Number	Prediction Statement
1	<input type="text"/>
2	<input type="text"/>

- Willows would grow in more places throughout the park.
- Willows would have more leaves on each plant.
- The aspen population would increase.
- Aspen would have more leaves on each tree.

APPENDIX B: EXAMPLE STAND-ALONE ITEM

The stand-alone aligns to the Performance Expectation HS-LS2-6: Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

Ranchers have raised livestock on the island of Crete since 10,000 BCE. Goats and sheep raised on a mountain on Crete eat shrubs, grass, and leaves from the lower branches of trees.

Figure 1 shows the number of livestock grazed on the mountaintop from 1961 to 1991.

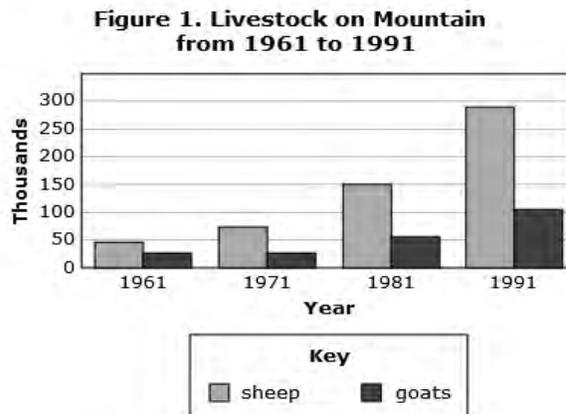
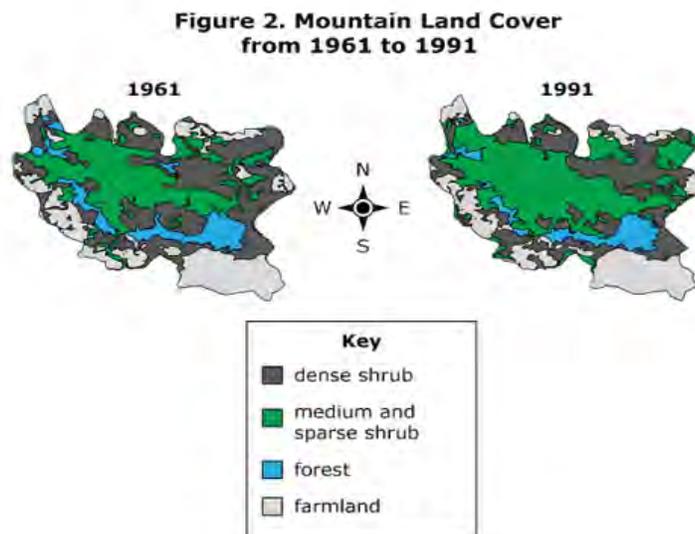


Figure 2 shows the land cover of the mountaintop from 1961 to 1991.



Select the **three** characteristics that provide evidence that the mountain ecosystem has changed.

- density of shrubs
- amount of farmland
- livestock habitat size
- total number of livestock
- ratio of forest to farmland

CHANGE LOG

This Change Log can be used to identify specific changes that are made to any of the information included in the original document throughout the current school year.

Change	Section	Date