



AzSCI

Arizona's Statewide Achievement
Assessment for Science

Friday Focus:

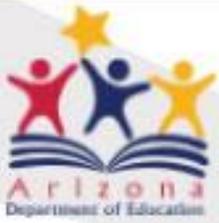
AzSCI A Phenomenal Assessment

Test Administration, Instruction, and Next Steps

Welcome to Webinar #3:

AzSCI Test Administration, Instruction, and Next Steps

- Please enter your First and Last Name in the Chat for tracking purposes for the live event.
- This webinar will be recorded and posted on the [ADE Assessments webpage](#).
- We will also be capturing the chat questions. If there are questions that were frequently asked or need further clarification, ADE will compile and create an FAQ which will then be distributed to DTCs.



Agenda

- ψ Welcome
- ψ AzSCI Implementation and AIMS Wavier
- ψ Science Standards and Assessment
- ψ Testing Tools
- ψ Item Types and Item Sets
- ψ AzSCI Resource Suite



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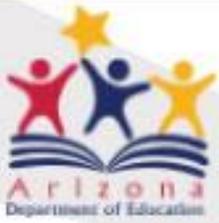
Arizona's Statewide Achievement
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AzSCI Implementation and AIMS Waiver

School Year 2020 - 2021

AzSci
ARIZONA SCIENCE TEST





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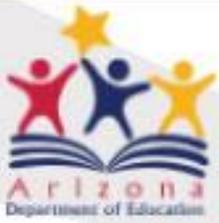
AIMS Science Waiver

The U.S. Department of Education approved a waiver to administer the AzSCI census field test in lieu of AIMS Science for 2020-2021.

For Science, we will only be administering census field tests (AzSCI and MSAA Science Alternate Assessment) in grades 5, 8, and 11 in the spring of 2021.

<https://www.azed.gov/assessment>





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Arizona's Statewide Achievement Assessment for Science

AzSCI is making the transition from Performance Objectives: Grade Level Assessment to 3-Dimensional Standards: Grade Band ASSESSMENT

ARIZONA SCIENCE STANDARDS & ASSESSMENT TRANSITION AND IMPLEMENTATION

New Standards
Fall 2019

Year 1:
2019-2020 AIMS Science Assessment and begin implementation of new standards

Year 2:
2020-2021 Implementation year for standards and transition year for assessment

Year 3:
2021-2022 Implementation year for standards and assessment

2018-19:

- 2004 Standards
- AIMS Science spring 2019

- Implementation of new 2018 Standards
- AIMS Science spring 2020
- Field Test for item types
- Request waiver from USDOE for forms field test for 2021

- Continue implementing 2018 Standards
- ~~AIMS Science spring 2021~~
- Forms Field Testing

New Science Assessment:

5th grade: 3/4/5

8th grade: 6/7/8

11th Grade 9/10/11 Essential Standards

ADE: Provides Phase 1 of guidance implementation with documents and introductory webinars as professional development (January- April, 2019) Updated 8/24/20

Please note the timeline for implementation of the new science standards and science assessment is tentative. As the implementation process evolves, ADE will solicit input from various stakeholders and share information regarding updates as necessary.

Knowing Science	Knowing Science	K	1	2	3	4	5	6	7	8	HS
P1	Physical Science										
P2:	Physical Science										
P3:	Physical Science										
P4:	Physical Science										

Knowing Science	Knowing Science	K	1	2	3	4	5	6	7	8	HS
E1	Earth & Space Science										
E2:	Earth & Space Science										

Knowing Science	Knowing Science	K	1	2	3	4	5	6	7	8	HS
L1	Life Science										
L2:	Life Science										
L3:	Life Science										
L4:	Life Science										

Grade Band and Domain





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Science Assessment Implementation Plan

Year 2 2020-2021	Year 3 2021-2022
Implementation year for standards and transition year for assessment	Implementation year for standards and assessment
AzSCI Grades 5, 8, and 11 (REQUIRED Field Test)	AzSCI Grades 5, 8, and 11 (REQUIRED Operational)
Grade Band Assessment 3-5 6-8 HS 9-11	Grade Band Assessment 3-5 6-8 HS 9-11
Computer-Based Assessment All responses on a special paper version of the assessment must be entered on the computer by the Test Administrator.	Computer-Based Assessment All responses on a special paper version of the assessment must be entered on the computer by the Test Administrator.
Test Window: March 2020 - April 2020	Test Window: TBA



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Science Standards and Assessment

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ARIZONA SCIENCE TEST





The Three Dimensions

Science and Engineering Practices (SEPs)

The core ideas of **Knowing** science (CIs)

AzSS Snapshot: What You Should See Students "Doing," "Thinking," "Knowing," and "Using" in Science

A Framework/Big Ideas for K-12 Science Instruction's 3-Dimensions and AzSS Using Science

Dimension 1: The Science and Engineering Practices

DO

1. Asking questions and defining problems (p. 54)*
2. Developing and using models (p. 56)*
3. Planning and carrying out investigations (p. 59)*
4. Analyzing and interpreting data (p. 61)*
5. Using mathematics and computational thinking (p. 64)*
6. Constructing explanations and designing solutions (p. 67)*
7. Engaging in argument from evidence (p. 71)*
8. Obtaining, evaluating, and communicating information (p. 74)*

Dimension 2: The Crosscutting Concepts

THINK

1. Patterns (p. 85)*
2. Cause and effect (p. 87)*
3. Scale, proportion, and quantity (p. 89)*
4. Systems and system models (p. 91)*
5. Energy and matter (p. 94)*
6. Structure and function (p. 96)*
7. Stability and change (p. 98)*

Dimension 3: The Core Ideas of Knowing Science and The Core Ideas of Using Science

The Core Ideas of Knowing Science

KNOW

- P: Physical Science (p. 105)***
 P1: All matter in the Universe is made of very small particles. (p. 20)**
 P2: Objects can affect other objects at a distance. (p. 21)**
 P3: Changing the movement of an object requires a net force to be acting on it. (p. 22)**
 P4: The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event. (p. 23)**
- E: Earth and Space Science (p. 171)***
 E1: The composition of the Earth and its atmosphere and the natural and human processes occurring within them shape the Earth's surface and its climate. (p. 24)**
 E2: The Earth and our solar system are a very small part of one of many galaxies within the Universe. (p. 25)**
- L: Life Science (p. 142)***
 L1: Organisms are organized on a cellular basis and have a finite life span. (p. 26)**
 L2: Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms. (p. 27)**
 L3: Genetic information is passed down from one generation of organisms to another. (p. 28)**
 L4: The unity and diversity of organisms, living and extinct, is the result of evolution. (p. 29)**

The Core Ideas of Using Science

USE

- U1:** Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised. (p. 30 & 31)**
- U2:** The knowledge produced by science is used in engineering and technologies to solve problems and/or create products. (p. 32)**
- U3:** Applications of science often have ethical, social, economic, and/or political implications. (p. 23)**

Crosscutting Concepts (CCCs)

The core ideas of **Using** science (CIs)





Knowing Science	Knowing Science	K	1	2	3	4	5	6	7	8	HS
P1 Physical Science	All matter in the Universe is made of very small particles.										
P2: Physical Science	Objects can affect other objects at a distance.										
P3: Physical Science	Changing the movement of an object requires a net force to be acting on it.										
P4: Physical Science	The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event.										

Knowing Science	Knowing Science	K	1	2	3	4	5	6	7	8	HS
E1 Earth & Space Science	The composition of the Earth and its atmosphere and the natural and human processes occurring within them shape the Earth's surface and its climate.										
E2: Earth & Space Science	The Earth and our solar system are a very small part of one of many galaxies within the Universe.										

Knowing Science	Knowing Science	K	1	2	3	4	5	6	7	8	HS
L1 Life Science	Organisms are organized on a cellular basis and have a finite life span.										
L2: Life Science	Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms.										
L3: Life Science	Genetic information is passed down from one generation of organisms to another.										
L4: Life Science	The unity and diversity of organisms, living and extinct, is the result of evolution.										





Distribution of the Grades 6-8 Standards	U1: Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised.	U2: The knowledge produced by science is used in engineering and technologies to create products.	U3: Applications of science often have both positive and negative ethical, social, economic, and political implications.
P1: All matter in the Universe is made of very small particles.	6.P1U1.1 8.P1U1.1 6.P1U1.2 8.P1U1.2 6.P1U1.3		
P2: Objects can affect other objects at a distance.	6.P2U1.4 7.P2U1.2 7.P2U1.1		
P3: Changing the movement of an object requires a net force to be acting on it.	7.P3U1.3 7.P3U1.4		
P4: The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event.	8.P4U1.3 8.P4U1.4	6.P4U2.5 8.P4U2.5	
E1: The composition of the Earth and its atmosphere and the natural and human processes occurring within them shape the Earth's surface and its climate.	6.E1U1.6 7.E1U1.6 7.E1U1.5 8.E1U1.6	7.E1U2.7	8.E1U3.7 8.E1U3.8
E2: The Earth and our solar system are a very small part of one of many galaxies within the Universe.	6.E2U1.7 6.E2U1.9 6.E2U1.8 6.E2U1.10		
L1: Organisms are organized on a cellular basis and have a finite life span.	7.L1U1.8 7.L1U1.10 7.L1U1.9 7.L1U1.11		
L2: Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms.	6.L2U1.13 7.L2U1.12 6.L2U1.14		6.L2U3.11 6.L2U3.12
L3: Genetic information is passed down from one generation of organisms to another.	8.L3U1.9		8.L3U3.10
L4: The unity and diversity of organisms, living and extinct, is the result of evolution.	8.L4U1.11 8.L4U1.12		



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- [Grade 3-5 Science Standards](#)
- [Grade 6-8 Science Standards](#)
- [High School Science Standards](#)

<https://www.azed.gov/standards-practices/k-12standards/standards-science>

Arizona Science Standards
(Adopted October 2018)

RESOURCES | PROFESSIONAL LEARNING OPPORTUNITIES

Important message to read for information regarding the implementation of the 2018 Arizona Science Standards and the new science assessment, please click [here](#)

Complete Standards document | PDF

- ▶ Grades Kindergarten - Highschool

NEW STANDARDS SUPPORT MATERIALS

- ▶ Planning Tools *NEW
- ▶ Administrator Tool Kit *NEW
- ▶ Vertical Progressions
- ▶ Distribution of Core Ideas
- ▶ Timeline and Graduation Requirements

PROFESSIONAL LEARNING OPPORTUNITIES

- ▶ Professional Development
- ▶ Recorded Webinars
- ▶ Science Standards Videos



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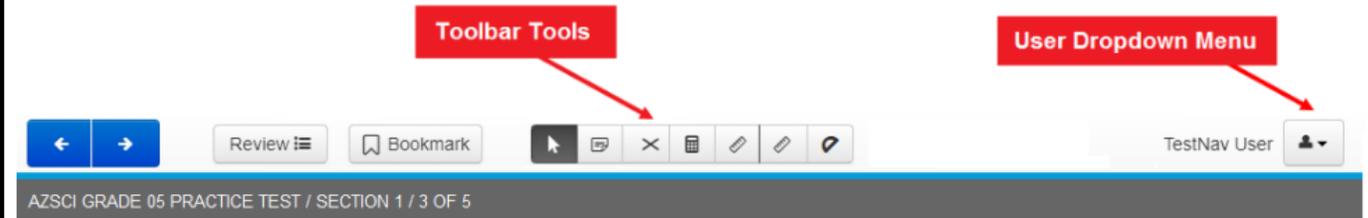
Testing Tools



Using Tools in the Test

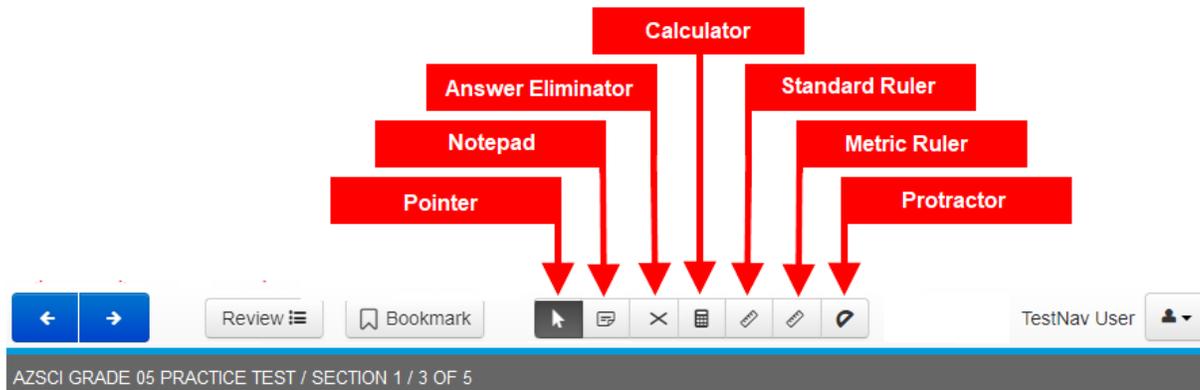
This section shows you how to use the tools in your test.

Select tools from the toolbar and from the User dropdown menu. Your test may also have other tools on the right side of your screen.



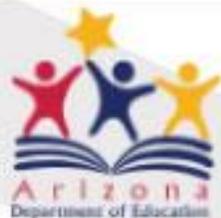
Toolbar Tools

This picture shows the tools you can select from the toolbar.



Other Tools





Using Tools in the Test

Some tools are selected from the **User Dropdown Menu**.

This picture shows the tools you can select from the **User Dropdown Menu**.

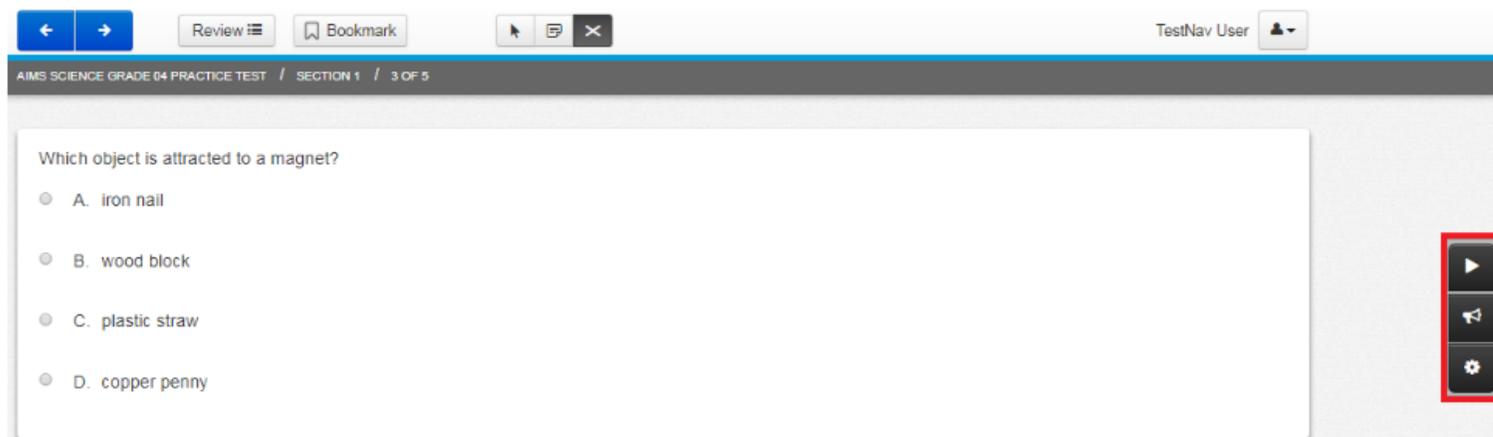
A screenshot of the TestNav user interface. At the top, there is a navigation bar with buttons for navigation (left and right arrows), "Review" (with a list icon), "Bookmark" (with a bookmark icon), and a mouse cursor icon. On the right side of the navigation bar, it says "TestNav User" next to a user profile icon. Below the navigation bar, a dark grey bar displays the test progress: "AIMS SCIENCE GRADE 04 PRACTICE TEST / SECTION 1 / 1 OF 5". The main content area shows a question: "What is the weather in Yuma?" with two multiple-choice options: "A. sunny" and "B. cloudy". To the left of the question, there are directions: "Directions: Use the information to answer the question. The map below shows the weather conditions for some of the cities in Arizona." A red rectangular box highlights the "User Dropdown Menu" on the right side of the screen. The menu is open and contains the following options: "Change the background and foreground color" (highlighted in blue), "Enable Magnifier", "Show Line Reader Mask", "Enable Answer Masking", and "Sign out of TestNav".

Text-to-Speech Tool

Use the **Text-to-Speech** tool to listen to the question and answer choices.

The **Text-to-Speech** buttons are found on the right side of the screen.

Select the **Play Text-to-Speech** button  to start and stop the read aloud.



← → Review Bookmark TestNav User

AIMS SCIENCE GRADE 04 PRACTICE TEST / SECTION 1 / 3 OF 5

Which object is attracted to a magnet?

- A. iron nail
- B. wood block
- C. plastic straw
- D. copper penny

The **Toggle Click-to-Hear** button  lets you select the text or question where the read aloud will begin.

The **Text-to-Speech Settings** button  lets you select how fast the text is read.



Speed: Normal

– +

Voice: Female



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Item Types and Item Sets



Figure 1: Percentage of Arizona Land Area in Drought

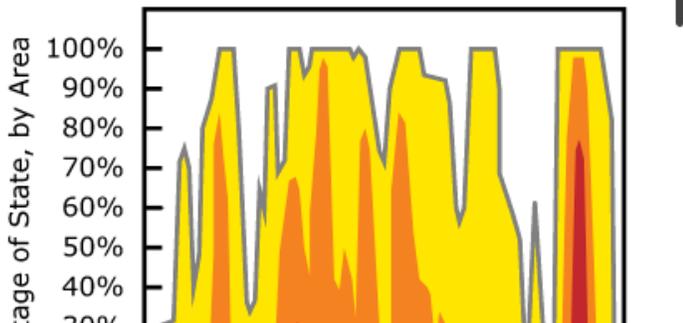
1 Figure 2: Three-Month Temperature Probability and Figure 3: Three-Month Precipitation Probability

Table 1: Average Annual Precipitation

2 The U.S. Drought Monitor website shows that most of Arizona has experienced some level of drought since the year 2000.

Figure 1: Percentage of Arizona Land Area in Drought provides information about the drought in Arizona.

3 **Figure 1: Percentage of Arizona Land Area in Drought**



This question has **two** parts. First answer Part A. Then answer Part B.

4

Part A

During late 2018, Arizona had a short period of significantly above-normal precipitation. However, weather scientists continued to recommend that people plan for drought through 2019.

Based on **Figures 1, 2, and 3**, which statement describes a reason that weather scientists expected continued drought?

- A. The precipitation is usually higher late in the year.
- B. The precipitation was a short-term weather event.
- C. The temperatures need to decrease for the drought to end.
- D. The temperatures are too high for continued precipitation.

Part B

Which statement describes evidence the weather scientists **most likely** used to make the recommendation?

1- Review all stimuli

2 - In this example, the stimuli (figures 1, 2, 3, and Table 1) will appear in this region when you select it at the top.

3 – Always scroll to the bottom of the stimulus frame to see all information.

4 – Read the directions and test questions.

5 - Always scroll to the bottom of the frame to see all information.



Multiple Choice

Which statement explains how having yellow flowers benefits radish plants?

- A. Plants with yellow flowers are larger than plants with other flower colors.
- B. Yellow flowers frequently attract honeybees, which helps the plants reproduce.
- C. Yellow flowers are prettier, which helps the plants outlive other plants.
- D. Plants with yellow flowers are more likely to outlive plants with other flower colors.

Evidence Based Response

This question has **two** parts. First answer Part A. Then answer Part B.

Part A

Based on **Figure 1**, which statement **best** describes the Coconino County environment over the past 400 million years?

- A. Coconino County was below sea level.
- B. Coconino County was far above sea level.
- C. Until recently, sea level was higher than the elevation of Coconino County.
- D. Sea level increased, covering Coconino County with ocean water, but then decreased.

Part B

Which evidence from **Figure 1** supports the answer to Part A?

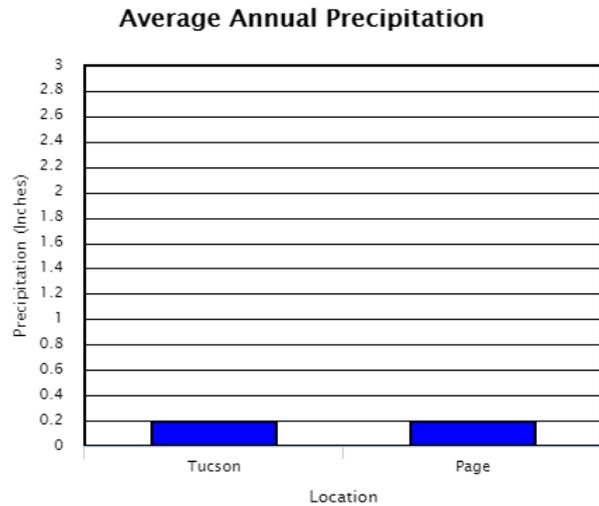
- A. The fossils found in Coconino County are land fossils.
- B. The fossils found in Coconino County are marine fossils.
- C. The oldest and the most recent fossils found in Coconino County are marine fossils.
- D. The oldest and the most recent fossils found in Coconino County are land fossils.

Bar Graph/Slider

After viewing tables of annual precipitation, students drag the top of the bar to the correct height.

Use the data in **Table 1** to create a bar graph that shows the average annual precipitation for the month that flooding is **most likely** to occur in each city.

Drag the top of each bar to the correct height.



Gap Match/Drag and Drop

Students move the text to the correct box.

Determine the order in which fossils will **most likely** be found, based on **Table 1** and **Figure 1**. Arrange the order with the fossil in Site 1 at the top. Move each type of fossil into the correct box in the table.

Amphibian tracks

Petrified wood

Shark teeth

Order	Fossil
1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>



Inline Choice

Students complete the sentences by selecting the correct word to fill in the blank.

The student wrote a statement about the terrarium. Complete the sentences by selecting the correct answers from the drop-down menus.

During the daytime, the terrarium light energy, which the thermal m. This change in energy the terrarium. The collection of water inside the terrarium shows that matter is as energy flows in the system.

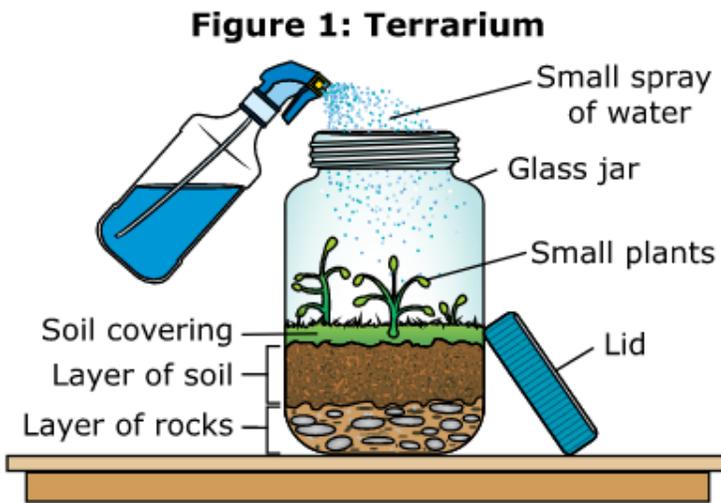
Note: A dropdown menu is open over the second "Select..." box, showing the following options: "Select...", "produces", "reflects", and "absorbs".

Figure 1: Terrarium

Jar Ecosystems

A terrarium can serve as a model ecosystem. Many terrariums contain rocks, soil, a soft soil covering that can absorb water, and a few small plants.

A student constructed a terrarium using a glass jar as shown in **Figure 1: Terrarium**.



The table shows three observations about the terrarium. Select boxes to indicate whether the observed event resulted from a transfer of energy, a transfer of matter, or both.

Select **all** the correct answers for each observation. You may select more than one answer in each row.

Observation	Transfer of Energy	Transfer of Matter
Plants increased in size, producing new leaves and stems.	<input type="checkbox"/>	<input type="checkbox"/>
Sunlight caused the temperature to increase.	<input type="checkbox"/>	<input type="checkbox"/>
The number of water droplets decreased during the day.	<input type="checkbox"/>	<input type="checkbox"/>

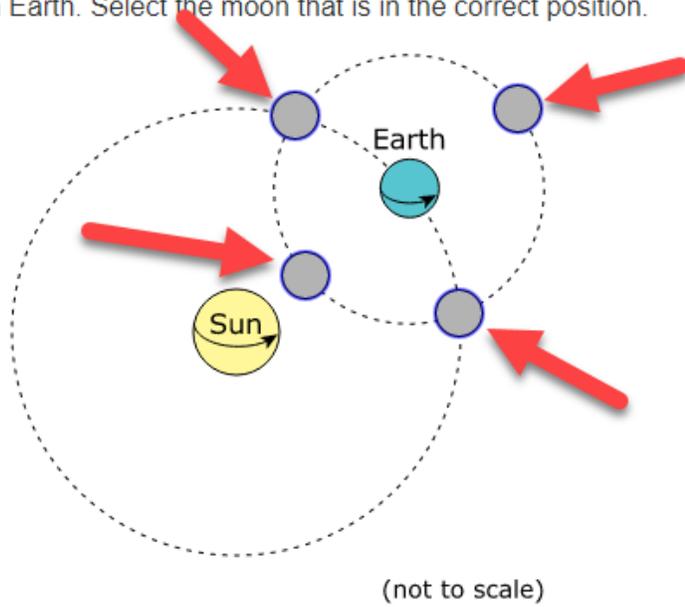
Match – Table Grid

Students select the boxes to indicate the correct response.

Selected Response (Hot Spots indicated by arrows)

The appearance of the moon from any position on Earth changes during each month.

Choose the position of the moon that creates the appearance of a new moon for observers on Earth. Select the moon that is in the correct position.

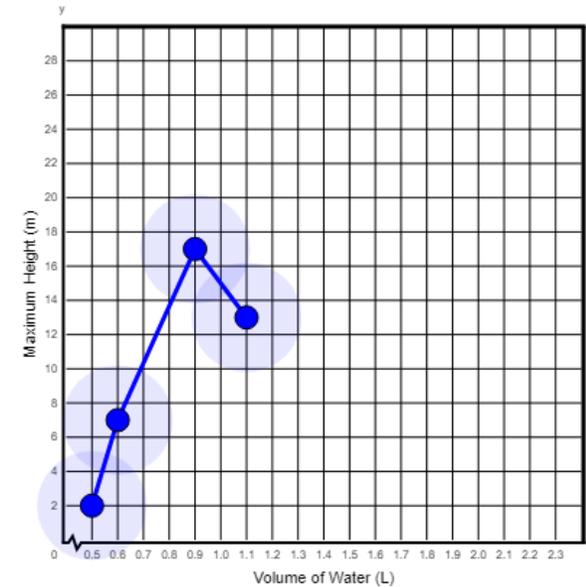


Coordinate Grid

Use the data in **Table 1** to graph the relationship between the volume of water and maximum height of the bottle rockets.

Select a location on the coordinate grid to plot each data point from the table. A line segment will connect the points.

Height vs. Volume of Water





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▶ **AzSCI Resource Suite**

▶ **AzSCI Testing Information**

▶ **AzSCI Testing Accommodations**



▼ **AzSCI Resource Suite**

[AzSCI Sample Test](#) - Select Arizona, then click on "Mic Check and Sample Tests"

- Recorded Videos for Using the Sample Tests
 - [Accessing the Sample Test](#)
 - [How the Tests are Set Up](#)
 - [Item Types](#)
- Scoring Guides
 - [AzSCI Scoring Guide Grade 5](#)
 - [AzSCI Scoring Guide Grade 8](#)
 - [AzSCI Scoring Guide Grade 11](#)
- Grade 8 and 11 Exhibit
 - [Periodic Table of Elements](#)
- Grade 11 Exhibit
 - [Formula Reference Guide](#)
- Item Specifications
 - [Grade Band 3-5](#)
 - [Grade Band 6-8](#)
 - [High School](#)

<https://www.azed.gov/assessment/sci>



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TestNav
Where do you want to go?

	Arizona	Michigan
	Colorado	Minnesota
	Delaware	New Jersey
	District of Columbia	Puerto Rico
	Florida	Rhode Island
	Illinois	Tennessee
	Iowa	Texas
	Kentucky	Utah

TestNav
Arizona

Username

Password

Sign In

Test Audio
[Mic Check & Sample Tests](#)

AzSCI Sample Tests
TestNav - <https://testnav.com/> or through the TestNav app.



[Back to Sign in](#)

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[AzSCI TestNav Sample Tests](#)

[Grade 05 AzSCI Sample Test](#)

[Grade 08 AzSCI Sample Test](#)

[High School AzSCI Sample Test](#)

[AzSCI Calculator Tutorial](#)

[AzSCI TestNav8 Tutorial](#)

Scoring Guides

Item Number	3
Item Title	The Red Car
Domain (<i>Reporting Category</i>)	Physical Science
Science and Engineering Practices (SEP) Group (<i>Reporting Category</i>)	Sensemaking
Content Standard	3.P4U1.3
SEP	Developing and Using Models
Crosscutting Concepts (CC)	Patterns
Phenomenon	A student sees a red car in a parking lot on a sunny 80-degree day. When the student touches the hood of the car it is hot.
TAGS	S2
Item Type	Bar Graph

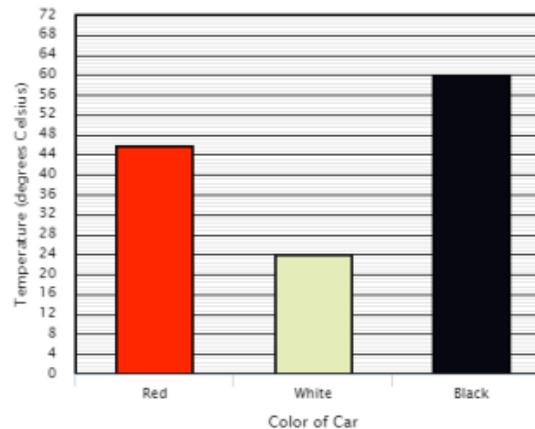
Item Details

The student puts a thermometer on the hood of each car to measure the amount of energy each hood is receiving from the sun.

The student records the temperatures 24°C, 46°C, and 60°C.

Use the bar graph to show the amount of energy each car hood is receiving from the sun. Drag the top of each bar to the correct height.

Hood Temperatures



Response

Score	Scoring Rubric
1	Student places bar height (from left to right) 46, 24, and 60
0	The response is incorrect or irrelevant.

Scoring

Item Specifications



ARIZONA SCIENCE TEST

AzSCI Item
Specifications

Table of Contents

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Test Design and Blueprint Tables	6
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Item Sets and Item Types	10
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Grade Band 6-8 Standard Specifications	17-35

Blueprints

AzSCI Blueprint

AzSCI assesses what it means to be proficient in science; it rests on a view of science as both a body of knowledge and an evidence-based, model- and theory-building enterprise that continually extends, refines, and revises knowledge. It presents three dimensions that will be combined to form each standard and item:

Domain	Number of Items	Percentage
Science and Engineering Practices and Crosscutting Concepts in Physical Sciences	16–17	33.33%
Science and Engineering Practices and Crosscutting Concepts in Life Sciences	16–17	33.33%
Science and Engineering Practices and Crosscutting Concepts in Earth and Space Sciences	16–17	33.33%

Every standard in each grade band will be assessed over a three-year period.

AzSCI TAGS

	Number of Items	Percentage
Doing tasks	1-3	5%
Guided tasks	33	65%
Scripted tasks	15	30%

SEP Coverage

	Number of Items	Percentage
Investigating	10–11	20%
Sensemaking	14–15	30%
Critiquing	10–11	20%

TAGS and Item Sets

Task Analysis Guide in Science - TAGS

AZ Task Analysis Guide in Science			
TAGS	Az TAGS Example	TAGS Coding	
		Students must use 2 Dimensions	Students must use 3 Dimensions
<p>Doing Science Tasks: Students are required to DO science by using practices to DEVELOP an understanding of a scientific or engineering phenomenon. Students must develop a model, explanation or argument from raw data or information. Students must be able to determine which data or information is appropriate and how to use it.</p>	<p>Doing Science items will typically not direct the students to specific information to use. <i>Use the information to explain the patterns observed.</i> OR <i>Which graph best represents the changes in X?</i> (Students then must look through all information/tabs to determine what information is relevant.)</p>	D2	D3
<p>Guided Science Tasks: Students use higher-level thinking to work through guided or scaffolded tasks. Students are told what information (model, data etc.) to use or are provided with information and then required to develop the actual answer.</p>	<p>Guided items will typically direct the students to the information to use (Tab 2, Graph 1, etc.), but the method for completing the task is left for the student to develop/determine with minimal if any further instruction. <i>Based on Graph 1, which statement explains when X event will happen?</i></p>	G2	G3
<p>Scripted Science Tasks: Students follow a script (defined actions or procedure) to complete a task.</p>	<p>Scripted items will typically direct the student to the information to use (Tab 1, Table 1, etc.) AND provide a set of well-defined actions or procedures to perform in order to complete a given task. Drag and drop (<i>Drag the arrows to complete the food chain</i>), hot spots, etc.</p>	S2	S3

Item Sets

Item Sets and Item Types

Item Sets

Item Set: A group of items that share the same stimulus centered on a specific science and/or engineering phenomenon. The AzSCI Assessment uses two different types of item sets.

Independent Item Set	Cluster Item Set
Aligns to at least one standard	Aligns to at least one standard
Three or more associated items	Five associated items
Items must function independently and do not need to be related.	All five items will be placed on the same form and should work together to show understanding of the phenomena.
Items can target various difficulty levels.	Avoid large differences in difficulty levels of items within a cluster set of five items.
Stimulus has a maximum of two tabs.	Stimulus has a maximum of four tabs.

Item Standard Specifications

AZ Grades 3–5 Item/Standard Specifications

Standard	3.P2U1.1 Ask questions and investigate the relationship between light, objects, and the human eye
SEPs	Asking Questions and Defining Problems
CCs	Patterns, Cause and Effect, Scale, Proportion and Quantity; Systems and System Models ; Energy and Matter; Structure and Function ; Stability and Change
Clarifications	
Assessment Boundaries	
Stimulus Materials	Figures, Graphs, Tables
Item Types	MC, MR

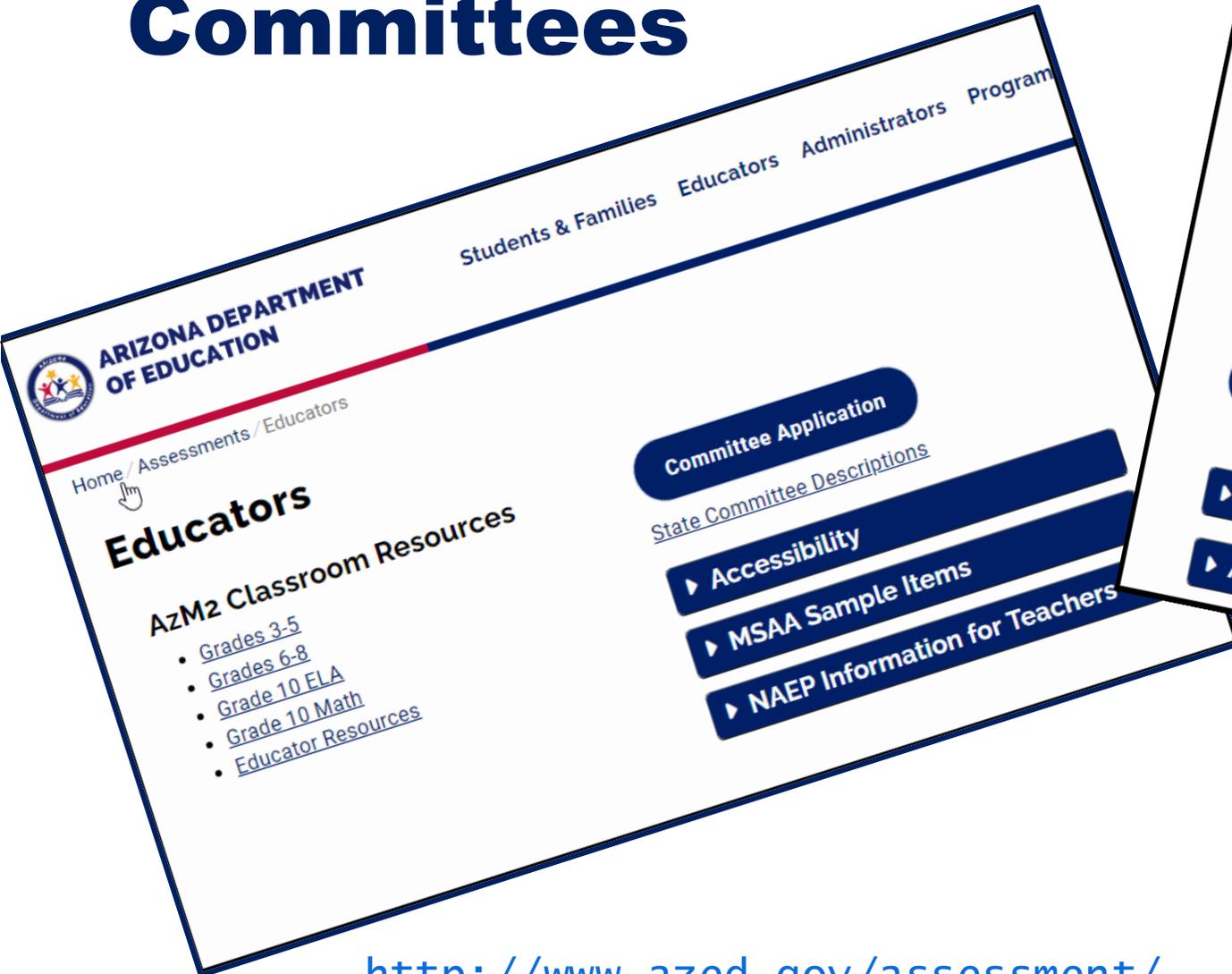
Standard	3.P2U1.2 Plan and carry out an investigation to explore how sound waves affect objects at varying distances.
SEPs	Planning and Carrying Out Investigations
CCs	Patterns, Cause and Effect, Scale, Proportion and Quantity; Systems and System Models ; Energy and Matter; Structure and Function ; Stability and Change
Clarifications	
Assessment Boundaries	The discussion at this grade level is qualitative only; it can be based on the fact that two different sounds can pass a location in different directions without getting mixed up.
Stimulus Materials	Figures, Graphs, Tables
Item Types	MC, MR, Inline Choice, Match - Table Grid

AZ High School Item/Standard Specifications

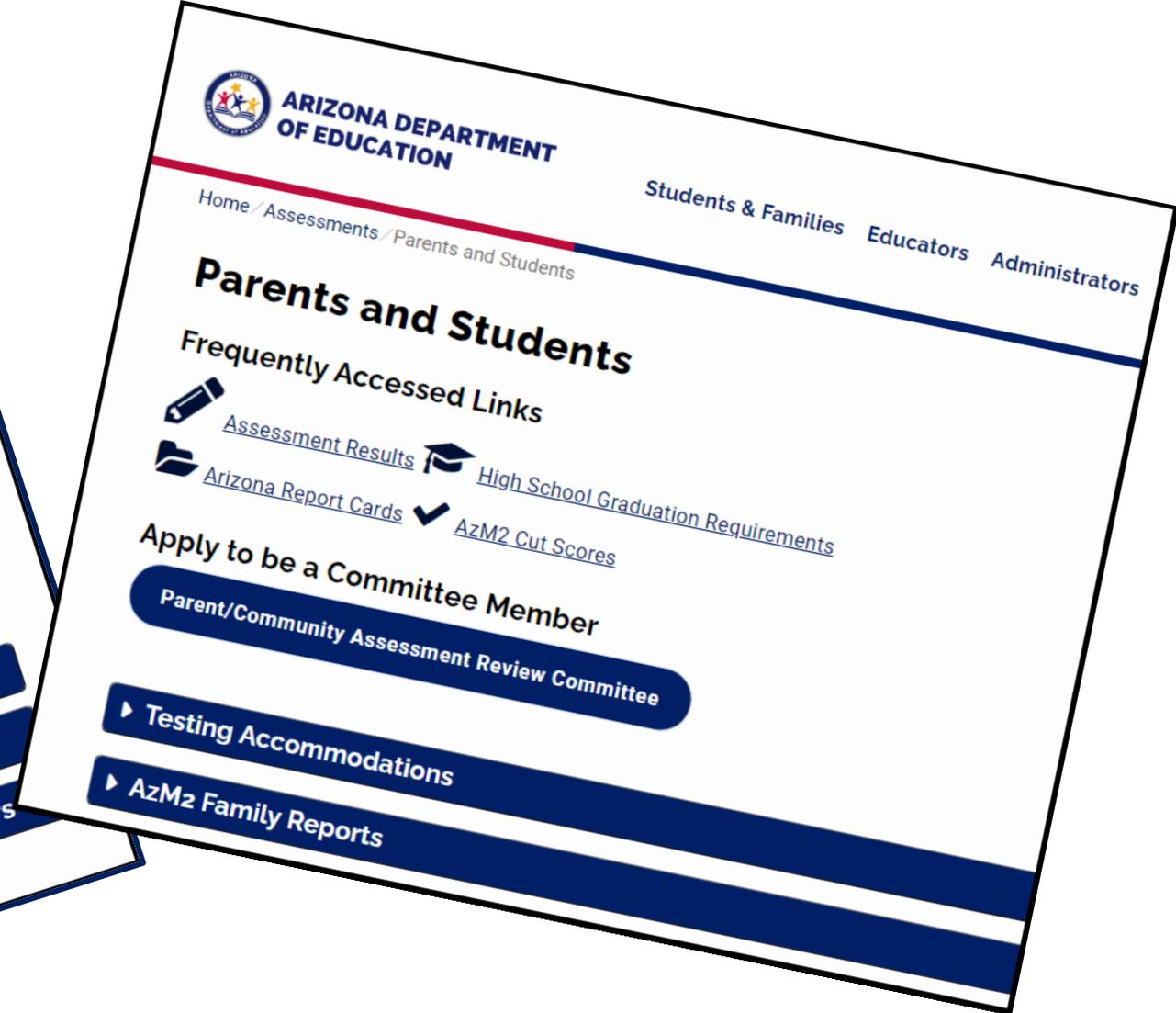
Standard	Essential HS.P1U1.1 Develop and use models to explain the relationship of the structure of atoms to patterns and properties observed in the Periodic Table and describe how these models are revised with new evidence.
SEPs	Develop and use models
CCs	Patterns; Cause and Effect; Scale, Proportion and Quantity; Systems and System Models; Energy and Matter; Stability and Change; Structure and Function
Clarifications	
Assessment Boundaries	
Stimulus Materials	Models, Figures, Diagrams
Item Types	MC, Hot Spot, Text Entry

Standard	Essential HS.P1U1.2 Develop and use models for the transfer or sharing of electrons to predict the formation of ions, molecules, and compounds in both natural and synthetic processes.
SEPs	Develop and use models
CCs	Patterns; Cause and Effect; Scale, Proportion and Quantity; Systems and System Models; Energy and Matter; Stability and Change; Structure and Function
Clarifications	
Assessment Boundaries	
Stimulus Materials	Models, Figures, Diagrams
Item Types	Inline Choice, MC, Gap Match, Text Entry

Assessment Committees



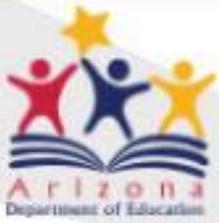
<http://www.azed.gov/assessment/educators/>



<http://www.azed.gov/assessment/parents/>

Questions





Thank You!

For questions, please contact us at:

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