OKLAHOMA SCHOOL TESTING PROGRAM

PARENT, STUDENT, AND TEACHER GUIDE

College- and Career-Readiness Assessment:
SCIENCE CONTENT and U.S. HISTORY CONTENT

2025–2026 GRADE 11

OKLAHOMA Education

College- and Career-Readiness Assessments: Science and U.S. History Content Administration Dates

2025–2026 School Year

Online Testing Window
April 1–30, 2026

Paper Testing* Window
April 1–10, 2026

*under special circumstances only

Dear Families and Educators,

In order to expand instructional time and optimize student learning, the Oklahoma School Testing Program (OSTP) takes place in the final weeks of the school year for elementary, middle, and high school students. Districts may select the dates that best fit their academic calendars within the approved testing window that is located at https://oklahoma.gov/education/services/assessments.html. Preliminary test results will be available online to families through the Oklahoma Parent Portal in June.

To access the Oklahoma Parent Portal and view past or new test results for your student, visit https://okparentportal.emetric.net/login. To create an account, you will need your student's 10-digit Student Testing Number (STN) and date of birth. If you do not know your student's STN please contact your student's school. The Oklahoma Parent Portal can help families monitor academic progress over time, as well as provide specific information on needed support or enrichment to keep the momentum building.

The CCRA measures your student's progress in learning the Oklahoma Academic Standards for U.S. history and science. For an overview of the tests, please visit https://oklahoma.gov/education/services/assessments/ostp-for-families.html. In this guide, you will find an explanation of what is covered in each test and sample questions designed to help students become familiar with the test format. This guide will help you and your student understand what to expect on the state assessments.

To learn more about the subject standards, please visit https://oklahoma.gov/education/services/standards-learning/oklahoma-academic-standards.html. The Oklahoma Academic Standards serve as expectations for what students should know and be able to do by the end of the school year.

If you have questions, please contact your school or the State Department of Education at (405) 521-3341 or assessments@sde.ok.gov.

Sincerely,

Oklahoma State Department of Education, Office of Assessments

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THE OKLAHOMA SCHOOL TESTING PROGRAM

State and federal laws require all students to be assessed in science and U.S. history once in high school. These assessments provide valuable indicators of career readiness and provide guidance for coursework needed in the senior year. Results from College- and Career-Readiness Assessments (CCRA) can be used to inform school or district level changes to programs and curriculum. They also help schools measure how students in a given class, school, or district are performing in relation to other students who take the same test. As such, college- and career-readiness assessments serve as a component of the Oklahoma School Report Card to meet state and federal accountability requirements.

This year, students enrolled in Grade 11 will take the following assessments:

- Each district will administer a College- and Career-Readiness Assessment for math and ELA, including a writing section. The test will be administered through a nationally recognized college entrance exam.
- Students will take the College- and Career-Readiness Assessment: Science Content and U.S. History Content, both aligned to the Oklahoma Academic Standards and delivered through an online platform.

Helping Your Student Prepare

There are a number of ways that you can support your student's learning habits on a daily basis that will help him or her be more prepared when it is time to be tested.

Here are some ideas to help your student prepare for each test:

- Make sure your student has had the opportunity to utilize the online practice test: https://okpracticetest.cognia.org/student/login.
- Make sure your student gets plenty of rest and has a well-balanced diet.
- Reassure your student that the test is just one opportunity to show what he or she knows. Classwork, projects, and other tests also show how much a student has learned throughout the year.

CCRA: SCIENCE CONTENT

The CCRA: Science Content is designed to assess the Oklahoma Academic Standards for Science (OAS-S). The OAS-S are three-dimensional performance expectations representing the things students should know, understand, and be able to do to be proficient in science and engineering. The test blueprint describes the content and structure of the test and defines the target number of test items by reporting category for the CCRA: Science Content.

What is my student learning?

The Grade 11 College- and Career-Readiness Assessment: Science Content provides one measure of student understanding of The Oklahoma Academic Standards for Science. This information is a snapshot of learning in science for high school. Students in high school continue to develop their understanding of the most fundamental concepts in the physical and life sciences. Students learn about these concepts by making connections with the crosscutting concepts and by exploring them through the eight science and engineering practices:

- Asking Questions and Defining Problems
- Developing and Using Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

How can I help my student at home?

- Discuss with your student what they are learning in school and ask them to explain it to you.
- Be open to exploring questions when you do not know the answer. Learning together with your student encourages scientific, evidence-based thinking and shows that learning is a lifelong process.
- Discuss current events about scientific discoveries with your student.
- Encourage your student to ask and research questions about common daily occurrences. Everyday questions may include:
    - Why does satellite TV not work during a storm?
    - Why is it necessary to unscrew hoses from the spigot in the winter?
    - Why can't metal go in a microwave?
    - Why is it important to keep space between vehicles when driving?
    - Why does a large truck take longer to stop than a smaller car?
    - Why is skin drier in the winter than in the summer?

CCRA: Science Content Practice Questions

The practice questions you see here represent the types of questions and interactions your student will see when they take the state test. The tests are designed to be administered on the computer and feature a variety of tools and interactive questions that are more engaging and aligned with 21st century teaching and learning practices. The CCRA Practice Test platform can be accessed using the information shown below:

URL: https://okpracticetest.cognia.org/student/login

Login credentials are not required for the Practice Test. Use the drop-down menu under "Select a Test" to select "CCRA Science." Then click "Go."

Note: If login credentials are requested, clear your browser's cache and relaunch the CCRA Science Practice Test.

A student's performance on the sample items provided in the CCRA Practice Test platform and in this guide **does not** predict their overall performance on the CCRA: Science Content. The purpose of the sample items is to allow students and parents to familiarize themselves with the types of questions that may be seen. An explanation as to why a particular response is correct or incorrect can be found at the end of this guide with the answer key.

Students will have access to a periodic table reference sheet as well as to a graphing or scientific calculator to use during the CCRA: Science Content. The reference sheet is available at the end of this manual and online at oklahoma.onlinehelp.cognia.org/reference-sheets/. For the calculator policy, visit https://oklahoma.gov/education/services/assessments/college-and-career-readiness-assessments.html.

For more information on the Oklahoma Academic Standards for Science, please visit https://oklahoma.gov/education/services/standards-learning/oklahoma-academic-standards.html.

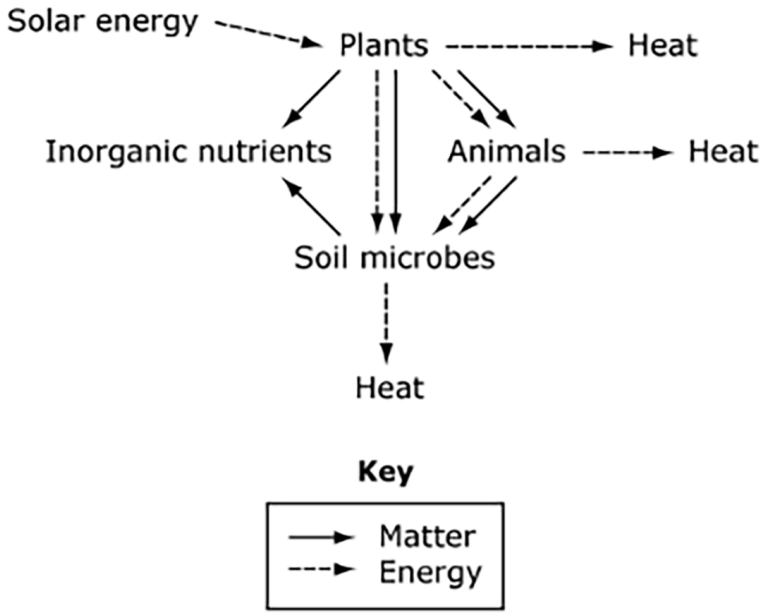
Directions

Read each question and choose the best answer. Find the question number in the answer document that matches the question number in the test booklet. Then mark your answer in the answer document.

Use the information to answer the following questions.

A group of students studied a grassland ecosystem. The students learned that biomass is a measure of the amount of matter in an ecosystem. They also learned that energy is primarily transferred through an ecosystem in the form of food. The students created a diagram to show what they learned.

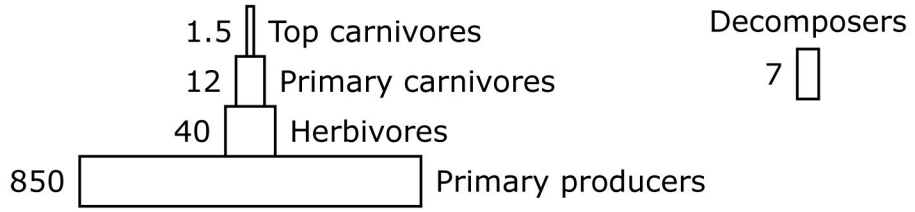
Matter and Energy Flow in a Grassland Ecosystem



After the students created the diagram, their teacher asked them to answer this question: *How is biomass related to energy flow in the grassland ecosystem?*

To help them answer the question, the students found biomass data. They created this second diagram to illustrate the data.

Pyramid of Biomass (g/m^2)



1 A student makes a claim about how the heat energy shown in the diagram "Matter and Energy Flow in a Grassland Ecosystem" helps explain the amounts of biomass shown in the diagram "Pyramid of Biomass."

> **Claim:** As heat energy is released by consumers, less heat is available to organisms at the next level. Therefore the higher pyramid levels contain less biomass.

Which statement **best** analyzes the student's claim?

A The claim is supported; organisms store heat energy in food to produce biomass, and the available heat energy decreases at the higher levels.

B The claim is supported; the amount of biomass stored at higher levels is very small, and small amounts of biomass show that energy and matter are lost from a system.

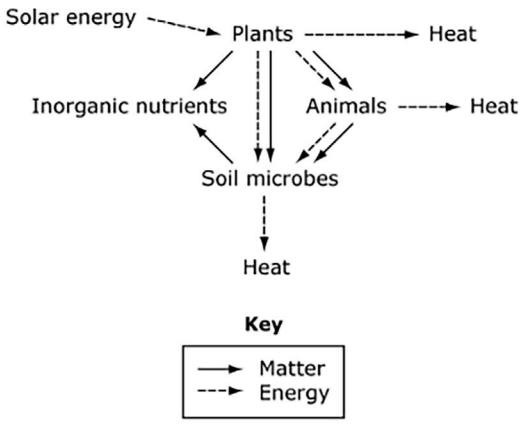
C The claim is rejected; heat energy flows in all directions among the levels, and this allows food energy to be stored within biomass at all levels.

D The claim is rejected; energy from food is used to produce biomass, and the conversion of some of this energy to heat in each level reduces energy to be stored in biomass.

2

A group of students studied a grassland ecosystem. The students learned that biomass is a measure of the amount of matter in an ecosystem. They also learned that energy is primarily transferred through an ecosystem in the form of food. The students created a diagram to show what they learned.

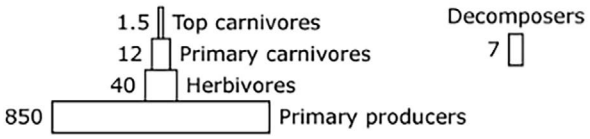
Matter and Energy Flow in a Grassland Ecosystem



After the students created the diagram, their teacher asked them to answer this question: *How is biomass related to energy flow in the grassland ecosystem?*

To help them answer the question, the students found biomass data. They created this second diagram to illustrate the data.

Pyramid of Biomass (g/m^2)



This question has three dropdown boxes. Three claims about energy flow in the ecosystem are listed. Some of the claims are supported by the information in the diagrams, while other claims are not supported. Identify whether each claim is "supported" or "not supported" based on the reasoning provided.

To select each answer, click the arrow and then click the answer. To choose a different answer, click the arrow and click the new answer. Be sure to select an answer for all three dropdown boxes.

Claim	Supported or Not Supported
The plants receive food energy from other organisms and from sunlight.	-Select an Answer-
The amount of stored energy changes as it flows between different trophic levels.	-Select an Answer-
The energy available to animals and microbes is limited by photosynthesis in plants.	-Select an Answer-

Claim	Supported or Not Supported
The plants receive food energy from other organisms and from sunlight.	-Select an Answer- Supported: the food web shows a solid arrow from inorganic nutrients to plants Not Supported: the food web shows a single dashed arrow from the sun to the plants
The amount of stored energy changes as it flows between different trophic levels.	
The energy available to animals and microbes is limited by photosynthesis in plants.	-Select an Answer-

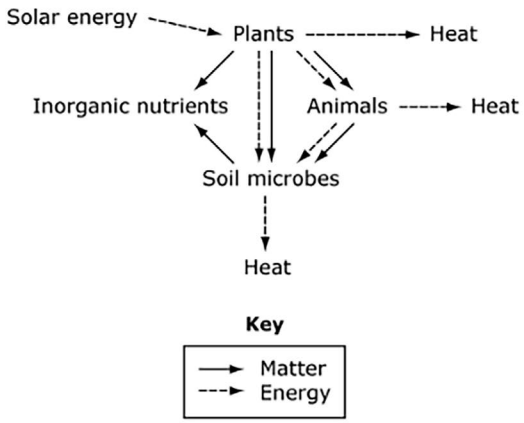
Claim	Supported or Not Supported
The plants receive food energy from other organisms and from sunlight.	-Select an Answer-
The amount of stored energy changes as it flows between different trophic levels.	-Select an Answer- Supported: the food web shows arrows between the organisms and heat Not Supported: the food web shows that both heat and energy move through the ecosystem
The energy available to animals and microbes is limited by photosynthesis in plants.	

Claim	Supported or Not Supported
The plants receive food energy from other organisms and from sunlight.	-Select an Answer-
The amount of stored energy changes as it flows between different trophic levels.	-Select an Answer-
The energy available to animals and microbes is limited by photosynthesis in plants.	-Select an Answer- Supported: the arrows trace all energy back to the use of sunlight by plants Not Supported: heat energy is present at each level of the system

3

A group of students studied a grassland ecosystem. The students learned that biomass is a measure of the amount of matter in an ecosystem. They also learned that energy is primarily transferred through an ecosystem in the form of food. The students created a diagram to show what they learned.

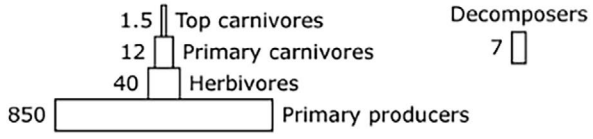
Matter and Energy Flow in a Grassland Ecosystem



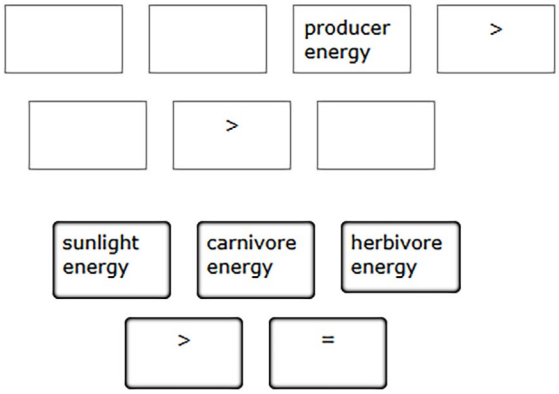
After the students created the diagram, their teacher asked them to answer this question: *How is biomass related to energy flow in the grassland ecosystem?*

To help them answer the question, the students found biomass data. They created this second diagram to illustrate the data.

Pyramid of Biomass (g/m^2)



Complete the mathematical expression to compare the amounts of energy in different levels of the ecosystem. Drag the labels into the boxes to create the mathematical expression for the amounts of energy at the different levels. To change a label, click and hold it, and then drag it back to the original location. You may use each label once or not at all.

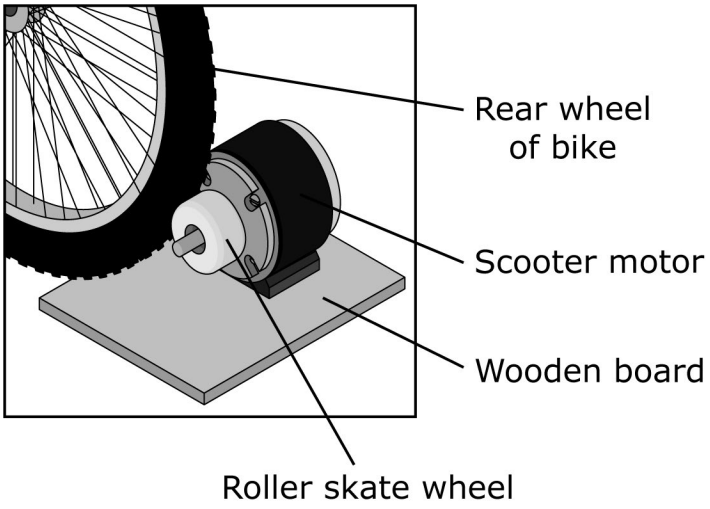


Use the information to answer the following questions.

Students in a science class were asked to build a device that would convert one form of energy into another form. The students were given the following design criteria:

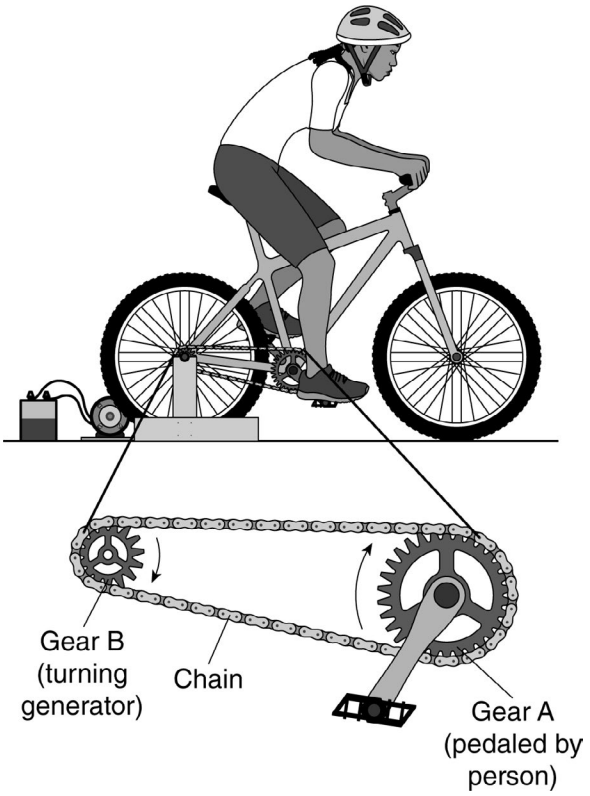
- device must charge a battery to run a six-watt cell phone for seven hours (forty-two watt hours [Wh])
- device must be portable
- device must be built from recycled materials

One group of students designed a bike-powered charging station. They learned that a motor run in reverse can work as an electrical generator. They built their generator by attaching a roller skate wheel to an old scooter motor. The generator was mounted to a wooden board, as shown in the first diagram.



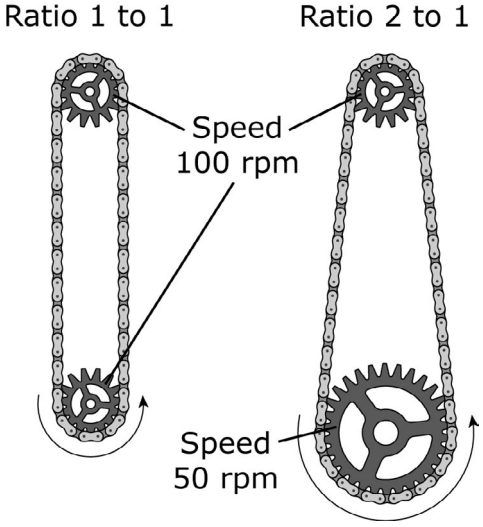
The generator was placed behind the rear wheel of the bike with the roller skate wheel touching the bike wheel. When the bike wheel spun it caused the roller skate wheel to rotate, spinning the generator and producing electricity. Next, the students built a wooden stand to hold the bike upright. Then the students attached the generator to a rechargeable twelve-volt battery.

The second diagram shows the completed setup.



A person pedaled to turn Gear A, which caused the chain attached to the gear to move. This, in turn, caused Gear B and the back wheel to spin, producing electricity and charging the battery. The students noticed that Gears A and B turned at different rates. The students learned this difference in rate is called gear ratio. The third diagram shows how gear size affects gear ratio. Gear speed is measured in rpm (revolutions per minute).

Gear Ratio



GO ON ▶

The data table shows speed data the students recorded for four people using the bike generator.

Speed Testing

3-Minute Test				
	Gear Speed (rpm)			
Person	**Gear A**	**Gear B**	**Charging Power (W)**	**Stored Energy (Wh)**
W	103	323	129.1	6.46
X	105	330	151	7.55
30-Minute Test				
Y	102	315	105	52.5
Z	101	316	106	53

The students also learned that not all of the energy put into the battery would be available to charge the cell phone. In general, only about 70% of the energy stored in a battery can be used to charge a device.

GO ON ▶

4 Which statement **best** describes an energy conversion in this system?

A Mechanical energy is converted to potential energy between Gear A and the chain.

B Kinetic energy is converted to potential energy between the rear wheel and Gear B.

C Potential energy is converted to chemical energy between the generator and the battery.

D Mechanical energy is converted to thermal energy between the rear wheel and the generator.

5 Based on the input and output data shown in the table, is the design useful?

A Yes, because 3 minutes of pedaling will produce an average of 140 W of power, and 98 W will be available to charge the phone.

B No, because 30 minutes of pedaling will produce an average of 52.8 Wh of power, and 37 Wh will be available to charge the phone.

C Yes, because 30 minutes of pedaling will produce an average of 105.5 W of power, and 42 W are needed to run the cell phone for 7 hours.

D No, because 3 minutes of pedaling will produce an average of 7.01 Wh of power, and 42 Wh are needed to run the cell phone for 7 hours.

6 Which change will decrease the amount of time it takes to transfer energy to the battery, assuming the cyclist continues pedaling at approximately 100 rpm?

A replace Gears A and B with two larger gears

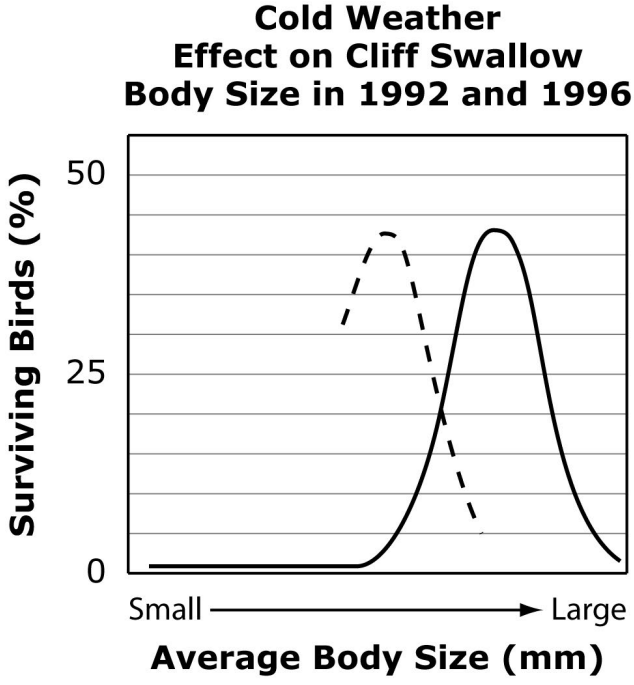
B replace Gears A and B with two smaller gears

C replace Gear A with a smaller gear and Gear B with a larger gear

D replace Gear A with a larger gear and Gear B with a smaller gear

Use the information to answer the following questions.

A student learns in class that cliff swallows are birds that live in the northern Great Plains. Cold weather events that last for several days decrease the availability of insects that cliff swallows primarily eat. The student knows that like other animals, cliff swallows store fat in their bodies that can be broken down to provide energy. Fat also helps animals retain heat in their bodies. The student wonders how cold weather events affect cliff swallow populations. They find a graph that shows how the average body size of a cliff swallow population changed after the birds were exposed to average temperatures and below-average temperatures. Body size is an inherited trait. The graph is shown.



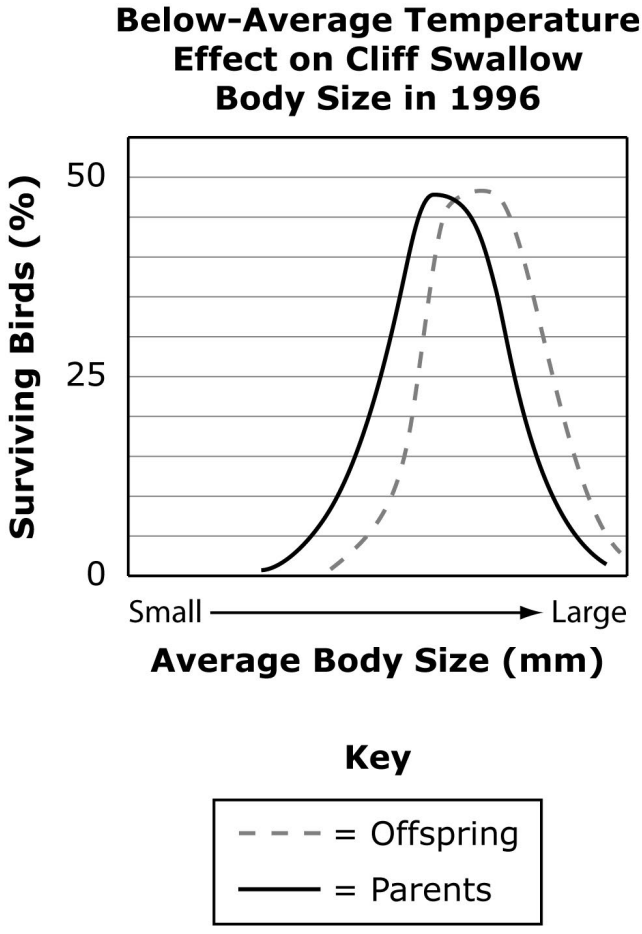
Key

– – – = Average temperatures

——— = Below-average temperatures

The student learns that there was a high survival rate in the cliff swallow population in 1992, suggesting that the average body size in 1992 was comparable to what it was before there were average temperatures.

They also find a graph that shows how below-average temperatures affected the average body size of the offspring of surviving cliff swallows. The graph is shown.



7 Which statement explains what would **most likely** occur to the cliff swallow population after 1996 if below-average temperatures became more frequent?

A Cliff swallows with small average body sizes would become smaller because fat stores in individual swallows would decrease.

B More cliff swallows would have larger average body sizes because there would be more birds inheriting larger bodies in each generation.

C More cliff swallows would have smaller average body sizes because birds with smaller bodies would only have offspring with smaller bodies.

D Cliff swallows with large average body sizes would become a new species because there would be more birds with large bodies in each generation.

8 Based on evidence from the graphs, which statement explains the differences in body size distribution in the cliff swallow population after below-average temperatures?

A Below-average temperatures result in fewer birds with smaller bodies reproducing than birds with larger bodies.

B Below-average temperatures result in birds with smaller bodies choosing to develop larger bodies to survive.

C Below-average temperatures result in birds with larger bodies becoming a different species than birds with smaller bodies.

D Below-average temperatures result in more birds with larger bodies in the population because the large body size trait is used and retained.

9 Based on evidence from the graphs, which statement **best** explains why the cliff swallow body size resulted from natural selection?

A Cliff swallows with the largest body sizes can survive cold weather.

B Cliff swallow offspring inherit body size traits that differ from their parents.

C There is variation in the body size trait that leads to differences in cliff swallow survival.

D Variations in body size for the largest birds are uncommon in the cliff swallow population.

GO ON ▶

Use the information to answer the following questions.

In the 1930s, the first commercial airlines carried passengers across the Atlantic Ocean. But the passengers did not travel in airplanes. Instead, they traveled in airships.

The Zeppelin Construction Company, a German company, built an airship they named "LZ-129 Hindenburg." The Hindenburg was the largest object ever flown. Most of the volume of this airship was filled with the 200,000 cubic meters of gas used to lift the ship into the air.

When designing the Hindenburg, engineers considered the density of air, which is 1.229 g/L. They considered two different gases to fill the airship, hydrogen and helium. Characteristics of those gases, plus other gases produced in the 1930s, are listed in the table. Reactivity describes how likely a substance is to gain or lose electrons.

Properties of Gases Produced in the 1930s

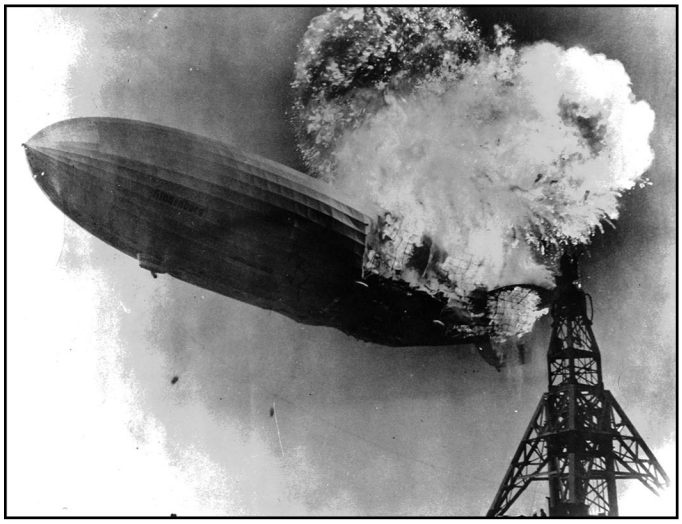
Gas	Number of Electrons in Valence Shell	Density (g/L)	Reactivity
Hydrogen	1	0.089	Highly likely
Helium	2	0.090	Not likely
Fluorine	7	1.700	Highly likely
Neon	8	0.900	Not likely
Chlorine	7	3.200	Highly likely
Argon	8	1.784	Not likely

Due to cost concerns, the Hindenburg engineers chose inexpensive hydrogen gas to fill their airship.

The Hindenburg made thirty-seven flights across the Atlantic Ocean in 1936 and 1937.

GO ON ▶

Then, on May 6, 1937, disaster struck as the ship was landing in stormy weather. Most researchers agree that a spark ignited leaking hydrogen. Within thirty-two seconds, the entire ship was engulfed in flames, taking the lives of some on board. The photograph, taken in the first few seconds of the explosion, shows the scale of the disaster.

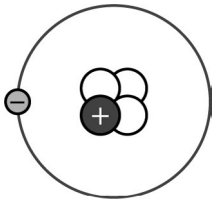


U.S. Navy

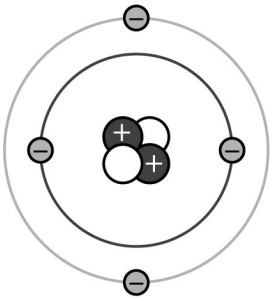
Today, airships are still used across the world. However, as a result of the Hindenburg disaster, they are no longer filled with hydrogen.

10 Based on the information shown in the periodic table and data table, what is the subatomic structure of helium?

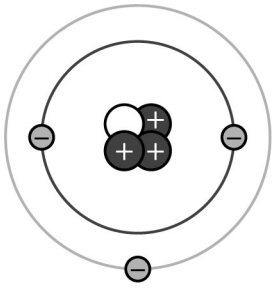
A



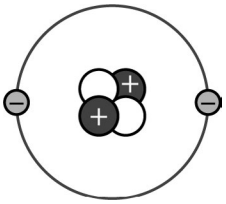
B



C



D



11 The periodic table organizes information into horizontal rows called periods and vertical columns called groups.

How do the data shown in the table relate to the organization of the periodic table?

A Elements with similar numbers of valence electrons are placed into the same period.

B Elements with similar numbers of valence electrons are placed into the same group.

C Elements with similar densities are placed into the same group.

D Elements with similar densities are placed into the same period.

12 How does the observation of reactivity described in the data table and text relate to hydrogen's location on the periodic table?

A Hydrogen's location shows that it has one free electron in its valence shell; this electron is given up freely during reactions.

B Hydrogen's location shows that it has one free electron in its valence shell; this electron reacts with other elements until it has seven other electrons to fill hydrogen's valence shell.

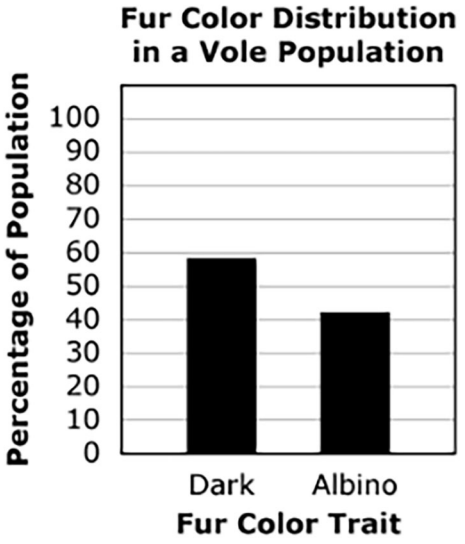
C Hydrogen's location shows that it has more protons than neutrons in its nucleus; hydrogen reacts with other elements until the number of protons is balanced by additional electrons.

D Hydrogen's location shows that it has more protons than neutrons in its nucleus; hydrogen reacts with other elements until the number of electrons is reduced to equal the number of neutrons.

Use the information to answer the following questions.

Meadow voles are small rodents similar to mice that are found in grassy areas. They store food and give birth to their young in underground burrows. Meadow voles usually have dark fur, but they can sometimes have white fur. Voles with white fur are called albinos. The genetic cause of the albino phenotype is the recessive form of a gene for fur color in voles. The dominant form of the gene codes for dark fur.

Albino voles are typically rare and usually have low survival rates in the population. Scientists recorded the distribution of fur color phenotypes in a vole population in one particular habitat, as shown in the graph.



Because the data were not what the scientists expected, they decided to investigate how genetic and environmental factors affect the distribution of expressed traits in vole populations.

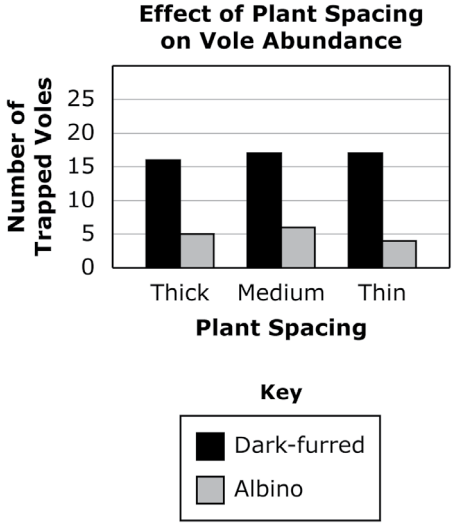
GO ON ▶

13 When thinking about environmental factors to explain the data in the graph "Fur Color Distribution in a Vole Population," scientists observed that there were many plants growing close together in the habitat. The scientists hypothesized that the thick plant cover allowed albino voles to be hidden from predators, and that this caused the fur color distribution seen in the vole population.

The scientists set up an experiment to test how the spacing of plants in an area affects the abundance of dark-furred and albino voles. In late spring, scientists released equal numbers of dark-furred and albino voles into habitats with different spacing and numbers of plants. Three months later, they set traps to capture some of the voles remaining in each area.

Which graph shows results that **best** support the scientists' hypothesis?

A



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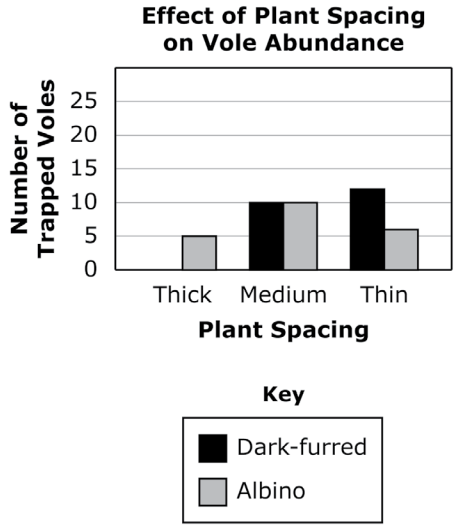

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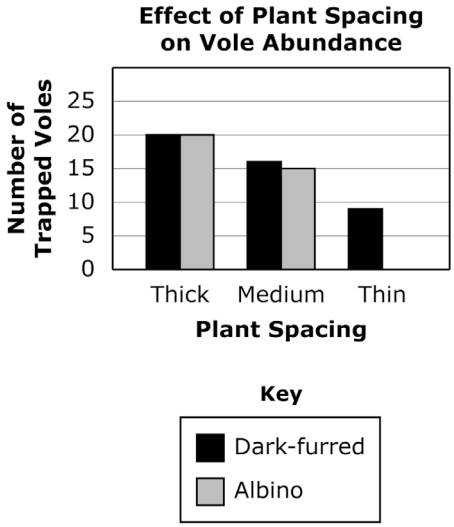

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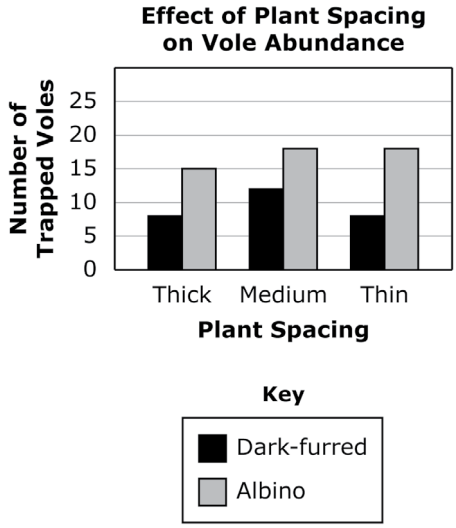
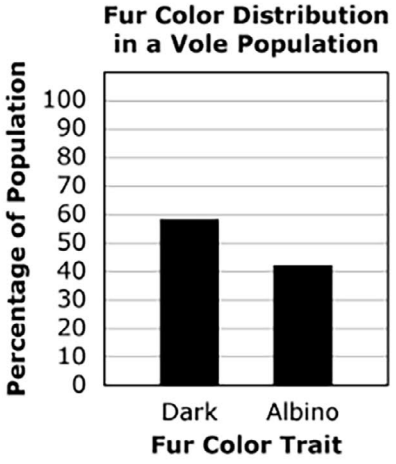


14

Meadow voles are small rodents similar to mice that are found in grassy areas. They store food and give birth to their young in underground burrows. Meadow voles usually have dark fur, but they can sometimes have white fur. Voles with white fur are called albinos. The genetic cause of the albino phenotype is the recessive form of a gene for fur color in voles. The dominant form of the gene codes for dark fur.

Albino voles are typically rare and usually have low survival rates in the population. Scientists recorded the distribution of fur color phenotypes in a vole population in one particular habitat, as shown in the graph.

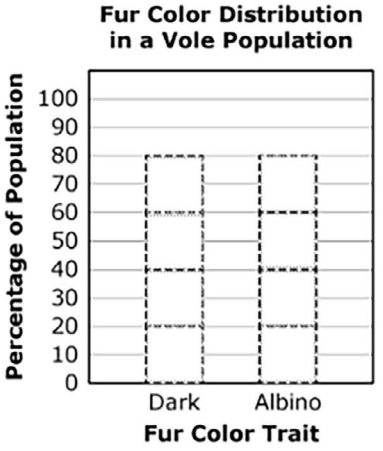


Because the data were not what the scientists expected, they decided to investigate how genetic and environmental factors affect the distribution of expressed traits in vole populations.

Scientists also wondered how another environmental factor, snow, would affect the distribution of fur color in the vole population. They measured survival of dark-furred and albino voles in the winter, after several years with winters that had more snow than usual.

Use the bar graph to show how fur color distribution in a vole population would **most likely** change for voles captured under these conditions.

Click on the boxes in the graph to create two solid-colored bars with appropriate heights. To select a box, click the box. To deselect a box, click on it again.



15

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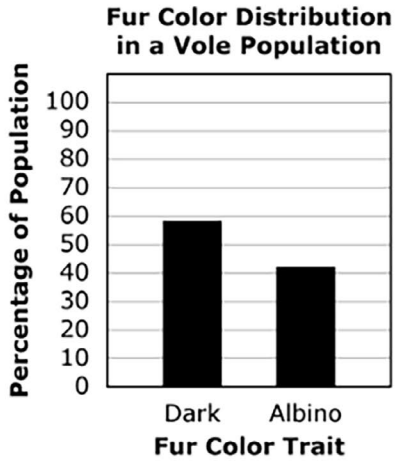


Because the data were not what the scientists expected, they decided to investigate how genetic and environmental factors affect the distribution of expressed traits in vole populations.

Although the environment plays a role in determining the distribution of the fur color trait in the vole population, the percentages of albino voles and voles with dark fur are also influenced by the mating patterns of the voles.

Match each vole cross on the left to its likely outcome on the right to show the expected percentages of offspring with each fur color. To connect a cross and outcome, click the cross and then the outcome. To remove a connection, hold the pointer over the line until it turns red, and then click it. You may connect each outcome to more than one vole cross.

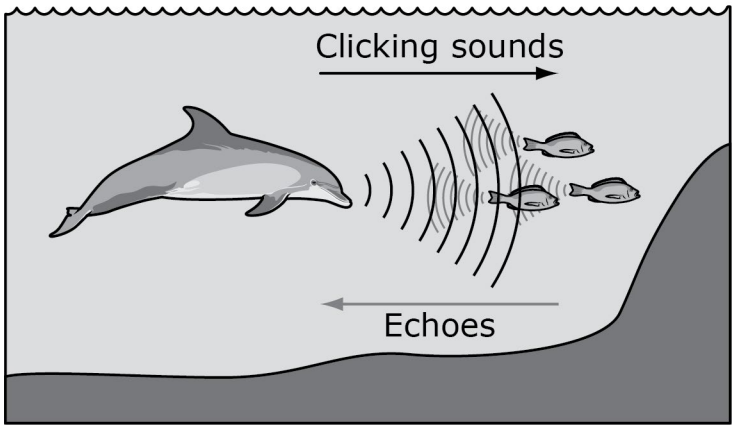
Vole cross	Outcome
AA x AA	50% dark fur and 50% albino fur
Aa x aa	100% of offspring with dark fur
AA x aa	
aa x aa	100% of offspring with albino fur

Use the information to answer the following questions.

A student notices dolphins at an aquarium and is surprised to learn that dolphins can find food from a distance using sound waves, an ability called echolocation.

While researching echolocation, the student learns that when dolphins produce clicking sounds across a range of frequencies, the sounds move through the water. Once the sound wave reaches prey like fish or squid, it echoes back from the prey to the dolphin. These echoes provide the dolphin with information about the location of prey. The diagram represents how dolphins use echolocation to find prey.

Echolocation



The student learns that the frequency in hertz (Hz), velocity in meters per second (m/s), and wavelength in meters (m) of a sound wave produced by a dolphin are related according to the following mathematical equation:

$$v = f\lambda$$

Key

v = Velocity of sound waves (m/s)
λ = Wavelength (m)
f = Frequency (Hz)

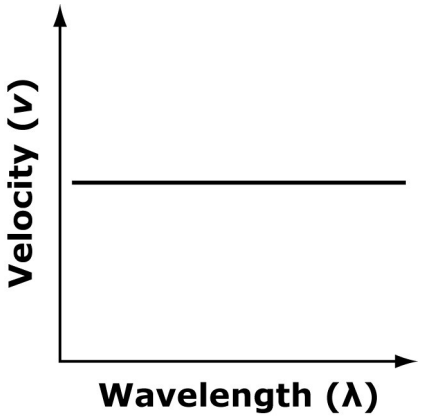
The student also finds a table that shows the velocity of sound in water compared to body tissues such as muscle and blood.

Sound Velocity Through Media

Medium	Velocity (m/s)
Water	1,500
Muscle	1,580
Blood	1,570

16 Based on the mathematical equation, which graph represents the relationship between the velocity and wavelength of a sound wave as it travels from water to the tissues of prey?

A



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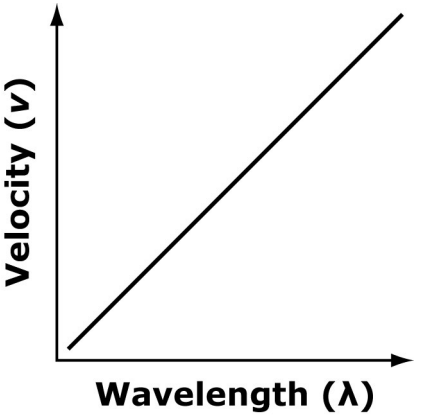
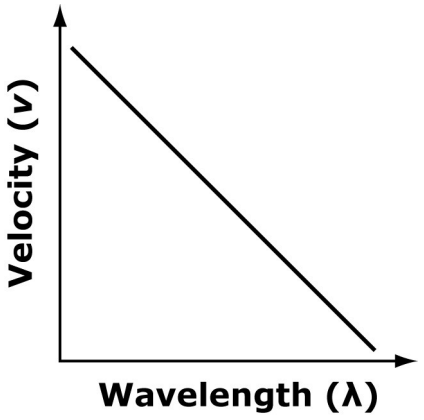
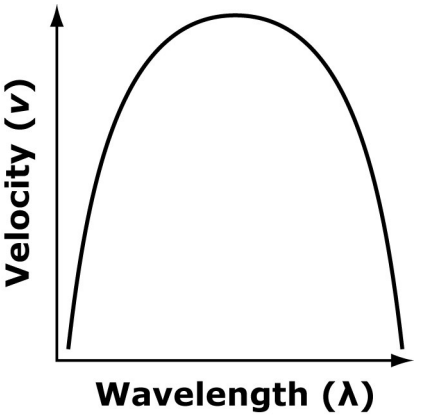


C



D



17 The student learns that when dolphins produce clicking sounds at lower frequencies, they can use echolocation to detect prey that are farther away.

Based on what the student learns, which statement explains how dolphins can detect prey from farther away when they produce lower-frequency clicks?

A This occurs due to wavelength decreasing and speed decreasing as sound travels through prey tissues and echoes back to the dolphins.

B This occurs due to wavelength increasing and speed decreasing as sound travels through prey tissues and echoes back to the dolphins.

C This occurs due to wavelength decreasing and speed increasing as sound travels through prey tissues and echoes back to the dolphins.

D This occurs due to wavelength increasing and speed increasing as sound travels through prey tissues and echoes back to the dolphins.

18 The student learns that shorter wavelength sound waves produced by dolphins provide more detailed information about their prey.

Based on the mathematical equation, which statement **best** describes the sound waves dolphins would need to produce to obtain more detailed information about their prey?

A Dolphins would need to produce sound waves with a higher frequency because f and λ are directly proportional.

B Dolphins would need to produce sound waves with a lower frequency because f and λ are directly proportional.

C Dolphins would need to produce sound waves with a higher frequency because f and λ are inversely proportional.

D Dolphins would need to produce sound waves with a lower frequency because f and λ are inversely proportional.

Use the information to answer the following questions.

A student learns about a type of rodent called a degu in class. Degus tend to live together in groups. A photograph of a degu is shown.

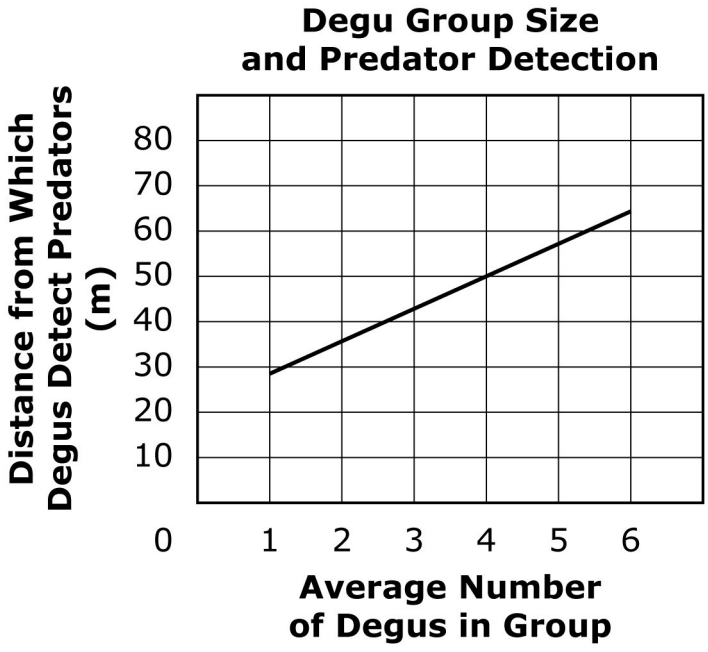
Degu

Degus live in groups of around 3–7 individuals in the shrub habitat of central Chile. They search for plant food aboveground. They live in underground tunnels, or burrows, that they build by digging up the soil. Degus can enter these burrows through different holes at the surface.

The student learns the following information:

- Degus use energy to build burrows.
- Degus in groups dig mostly in the same holes, decreasing the time and energy it takes to build a burrow.
- Burrows provide shelter for degus in the group.
- When degus search for food, they eat some of the food they find and also gather food to bring to all the group's offspring that are raised in the burrows.
- While aboveground, degus are vulnerable to predators such as birds and foxes.
- Degus look out for predators as part of a group and make warning calls to alert members of the group to seek shelter in the nearest hole to their burrow.
- Degus use energy to look out for predators on behalf of group members.

Scientists investigated the relationship between the number of degus in a group and the distance in meters (m) between a predator and the burrow. The graph shows the results from the investigation.



19 The student claims that degu lookout behavior improves the chances of individual degu survival within the group.

Which evidence **best** supports the student's claim?

A Degus use some of their energy to look out for nearby predators.

B While looking out for predators aboveground, degus are exposed to predators.

C Predators are detected from farther away when there are more degus looking out for predators.

D After a degu on the lookout detects a predator, the degu has to travel to the nearest burrow hole.

20 Which additional evidence would **best** support the claim that the food-gathering behavior of adult degus benefits young degus?

A data showing that young degus in a group have access to gathered food until they are able to gather food for themselves

B data showing that adult degus in a group spend a lot of time aboveground searching for food to gather for young degus

C data showing that adult degus travel far away from other degus in their group to gather food for young degus

D data showing that young degus compete with other degus in their group for gathered food

21 The student claims that building burrows as a group benefits the degu species.

Based on the information the student learns, which statement would **best** support the student's claim?

A Once built, burrows are a location for degus to shelter offspring.

B Individual degus are aboveground when they start to build burrows.

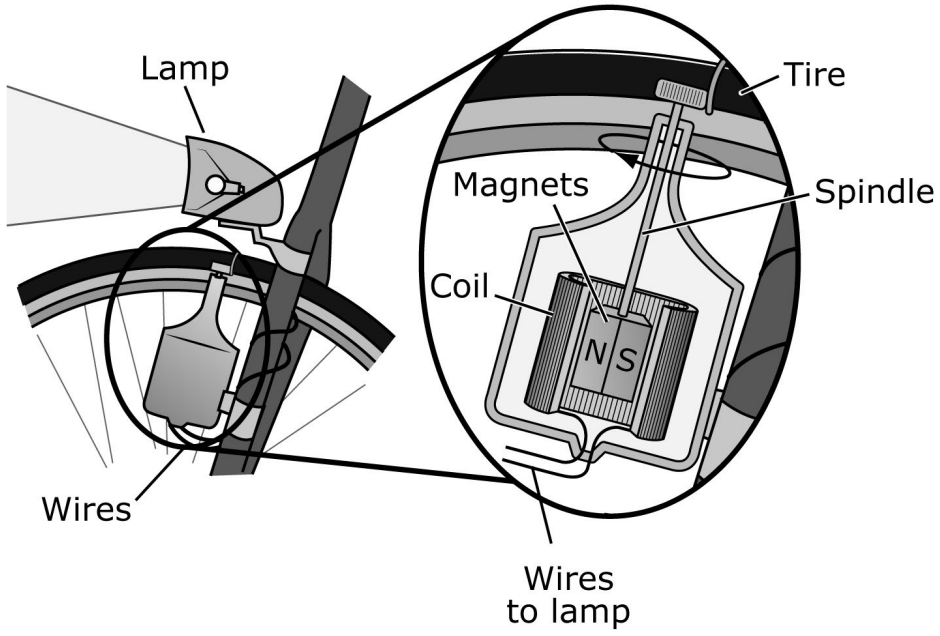
C Degus in a group take more time to build burrows than solitary degu.

D While building a burrow, a group of degus dig up less soil than a solitary degu.

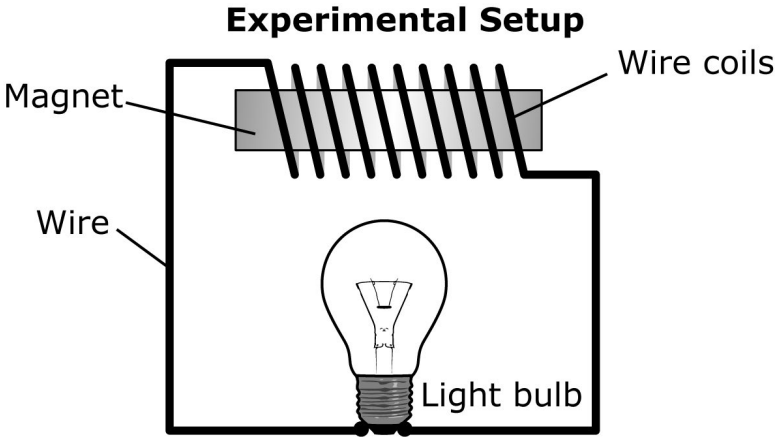
Use the information to answer the following questions.

A student is riding their bike when their headlight turns off due to a dying battery. The student decides to find another way to power the headlight. The student researches alternative energy sources and finds a battery-free headlight powered by an electromagnet. The diagram shows the parts of the battery-free headlight.

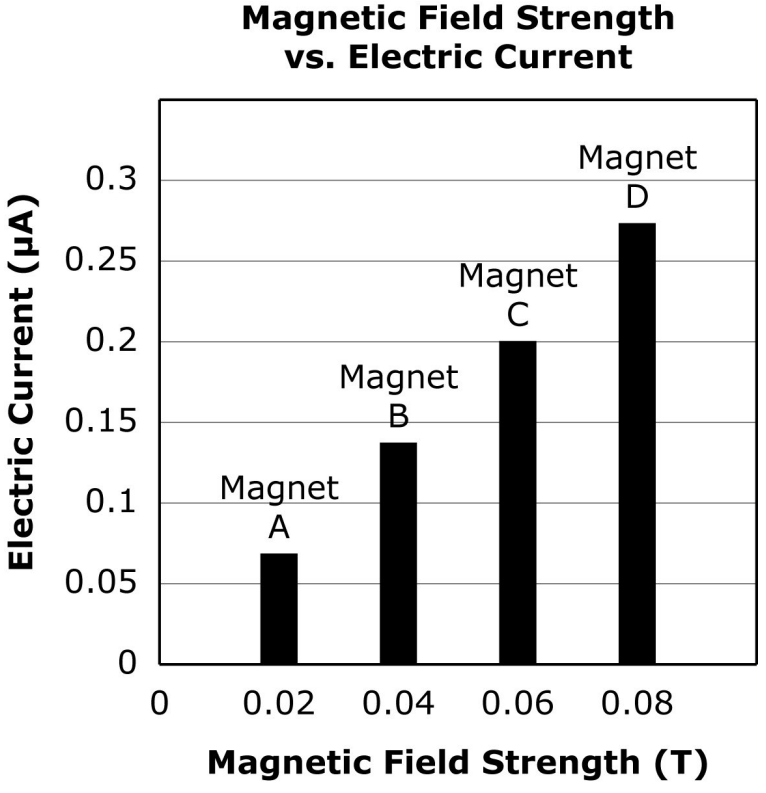
Battery-Free Headlight



The student knows an electric current is produced when the tire spins the magnet. The electric current then travels through the wires to the headlight and provides the energy needed for the light bulb to turn on. The student wants to use the electromagnet as the new energy source for their headlight but wants to make the light brighter. They learn that the more current that flows through the bulb, the brighter the light will be. They decide to set up and conduct an investigation to determine how to produce more current from the electromagnet. The student investigates the effect of the magnetic strength of the magnet on the electric current. The diagram shows the student's experimental setup.



The student uses four magnets of different magnetic strengths. The magnetic strength of each magnet is measured in Tesla (T) and the electric current is measured in microamperes (μA). The graph shows the recorded data.



22 The student places the magnet in the wire coils as shown in the Experimental Setup diagram. The light does not come on. The student measures an electrical current of zero in the circuit but measures a magnetic field from the magnet.

How should the student modify the setup to measure an electric current?

A Change the magnetic field by using less wire.

B Change the magnetic field by adding another light bulb.

C Change the magnetic field by moving the magnet back and forth.

D Change the magnetic field by wrapping fewer coils around the magnet.

23 Based on the Battery-Free Headlight diagram and the Experimental Setup, which claim **best** describes how the magnet produces an electric current without a battery?

A The spinning magnet produces friction, which transfers static charge to the coil.

B The spinning magnet produces heat energy, which is converted to the coil as electrical energy.

C The spinning magnet produces a changing magnetic field, which causes an electric field in the coil.

D The spinning magnet produces a changing magnetic field that attracts the coil, making it spin, which causes an electric field.

24 Which change to the investigation would **best** provide evidence that there is a direct relationship between the magnetic field and the electrical current?

A Use a stronger magnet in the setup.

B Remove the light bulb from the setup.

C Increase the length of each trial in the experiment.

D Measure the current on a different part of the circuit.

STOP

CCRA: U.S. HISTORY CONTENT

The Grade 11 College- and Career-Readiness Assessment: U.S. History Content measures the Oklahoma Academic Standards for U.S. History. The test blueprint describes the content and structure of the test and defines the target number of test items by reporting category for the CCRA: U.S. History Content.

What is my student learning?

Students in grade 11 continue to develop and demonstrate social studies reading and writing literacy skills. Students can read and analyze social studies texts and compare the point of view of two or more authors on the same or similar subjects. Students can write arguments focused on social studies–specific content, conduct research projects, and draw evidence from informational texts to support analysis, reflection, and research.

How can I help my student at home?

- Discuss historical and current events with your student.
- Research with your student different historical and current events.
- Discuss how different people may have different perspectives on historical and current events and why their perspectives may be different.
- Discuss different laws and amendments, why they were created, and what implications they have on citizens.

CCRA: U.S. History Content Practice Questions

The practice questions you see here represent the types of questions and interactions your student will see when they take the state test. The tests are designed to be administered on the computer and feature a variety of tools aligned with 21st century teaching and learning practices. The CCRA Practice Test platform can be accessed using the information shown below:

URL: https://okpracticetest.cognia.org/student/login

Login credentials are not required for the Practice Test. Use the drop-down menu under "Select a Test" to select "CCRA US History." Then click "Go."

Note: If login credentials are requested, clear your browser's cache and relaunch the Practice Test.

A student's performance on the sample items provided in the CCRA Practice Test platform and in this guide **does not** predict their overall performance on the Grade 11 CCRA: U.S. History Content. The purpose of the sample items is to allow students and parents to familiarize themselves with the types of questions that may be seen. An explanation as to why a particular response is correct or incorrect can be found at the end of this guide with the answer key.

For more information about the Grade 11 CCRA: U.S. History Content, visit the Test Blueprint and Item Specifications at: https://oklahoma.gov/education/services/assessments/college-and-career-readiness-assessments.html.

For more information on the Oklahoma Academic Standards for U.S. History, please visit https://oklahoma.gov/education/services/standards-learning/oklahoma-academic-standards.html.

Directions

Read each question and choose the best answer. Find the question number in the answer document that matches the question number in the test booklet. Then mark your answer in the answer document.

1

> "Europe's requirements for the next three or four years of foreign food and other essential products—principally from America—are so much greater than her present ability to pay that she must have substantial additional help or face economic, social, and political [decline] of a very grave character."
>
> —Secretary of State George Marshall, 1947

What was the main goal of the "help" mentioned by Secretary Marshall?

A to repay loans made to the Soviet Union

B to stop the spread of communism in Europe

C to take over western European governments

D to aid the Soviet Union in rebuilding its military strength

2

> I am tired of fighting. Our chiefs are killed. Looking Glass is dead. Toohulhulsote is dead. The old men are all dead. It is the young men who say yes or no. He who led the young men is dead.
>
> It is cold and we have no blankets. The little children are freezing to death. My people, some of them, have run away to the hills and have no blankets, no food . . . I want to have time to look for my children and see how many I can find. Maybe I shall find them among the dead.
>
> Hear me, my chiefs. I am tired. My heart is sick and sad. From where the sun now stands, I will fight no more forever.
>
> —Surrender of Chief Joseph of the Nez Perce, 1877

Chief Joseph was tired of fighting against

A the intermarriage of U.S. citizens and American Indians.

B the cultural exchange between U.S. citizens and American Indians.

C the forced relocation of American Indians to reservation lands.

D the patriarchal society forced on American Indian groups by settlers.

Study the information. Then answer the following four questions.

Source A

It is not true that the United States feels any land hunger or entertains any projects as regards the other nations of the Western Hemisphere save such as are for their welfare. All that this country desires is to see the neighboring countries stable, orderly, and prosperous. Any country whose people conduct themselves well can count upon our hearty friendship. If a nation shows that it knows how to act with reasonable efficiency and decency in social and political matters, if it keeps order and pays its obligations, it need fear no interference from the United States. Chronic wrongdoing . . . which results in a general loosening of the ties of civilized society, may in America, as elsewhere, ultimately require intervention by some civilized nation, and in the Western Hemisphere the adherence of the United States to the Monroe Doctrine may lead the United States, however reluctantly, in [obvious] cases of such wrongdoing . . . , to the exercise of an international police power.

—Theodore Roosevelt's Corollary to the Monroe Doctrine, 1904

Source B

—John T. McCutcheon, *Chicago Tribune*, 1914

Source C

Now you are called upon to use your influence to prevent the American people from disregarding the rights of others. Self-restraint is a difficult virtue to practice. . . .

It has been the boast of our nation that right makes might; shall we abandon the motto of the republic and go back a century to the monarchical motto which asserts that might makes right? . . .

Imperialism finds its inspiration in dollars, not in duty. It is not our duty to burden our people with increased taxes in order to give a few speculators an opportunity for exploitation; it is not our duty to sacrifice the best blood of our nation in tropical jungles . . . ; it is not our duty to deny to the people of the Philippines the rights for which our forefathers fought from Bunker Hill to Yorktown.

Our nation has a mission, but it is to liberate those who are in bondage—not to place shackles upon those who are struggling to be free. . . .

—William Jennings Bryan, excerpt from
"Who Saves His Country Saves Himself," 1898

3 The policy described in Source A was used as a justification for American intervention in

A Cuba.

B Hawaii.

C Samoa.

D Panama.

4 The creator of Source B would **most likely** agree with which statement?

A It is the duty of the United States to liberate oppressed peoples.

B American foreign policy should be less invasive and more helpful.

C American intervention is sometimes harmful to native populations.

D It is the responsibility of the United States to promote isolationism.

5 The speaker in Source C would **most likely** agree with which position?

A support for war against Spain

B support for the policy of imperialism

C opposition to the annexation of Hawaii

D opposition to a decrease in troops overseas

6 Which conclusion is **best** supported by Sources A, B, and C?

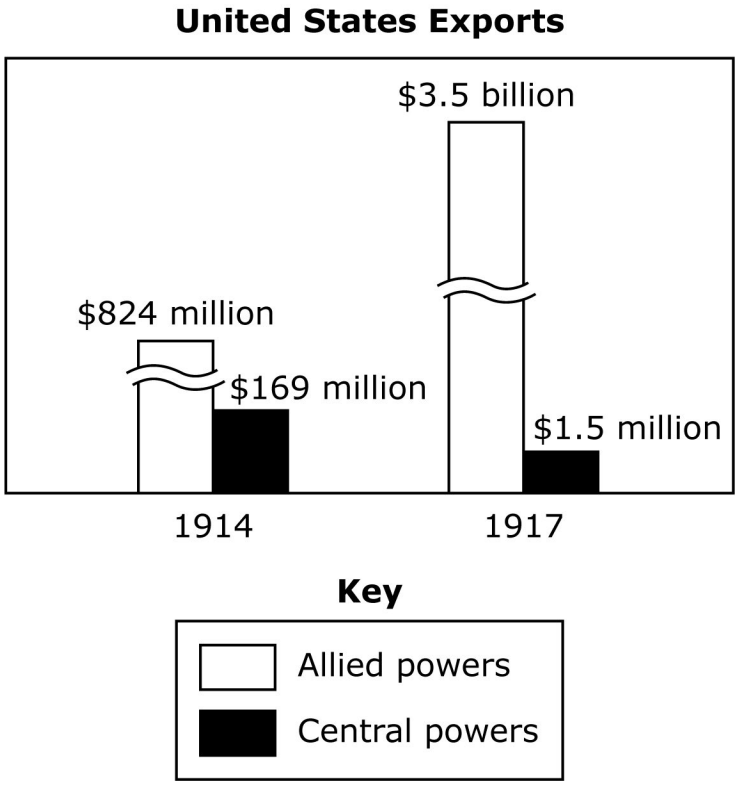
A The majority of citizens were in favor of annexing new territories overseas.

B The global influence of the United States expanded rapidly during the early 20th century.

C Few politicians believed in the financial benefits of supporting the white man's burden.

D Few countries could compete economically with the United States during the early 20th century.

7



Which inference about World War I is **best** supported by the data in this graph?

A The Allied Powers had no need for U.S. exports.

B The U.S. desire for strict neutrality was difficult to meet.

C The value of U.S. exports remained constant during the war.

D The Central Powers no longer needed to trade with for U.S. weapons after the war began.

8

- Equal pay for equal work
- Equal opportunities in the job market
- Elimination of gender-based discrimination

Which social movement is **most** aligned with the ideas in this list?

A Women's Liberation Movement

B Temperance Movement

C Black Power Movement

D Women's Suffrage Movement

9


The Daily Herald

June 2, 1924

President Calvin Coolidge Signs the Indian Citizenship Act into Law

Which statement **best** describes one effect of the action described in this headline?

A American Indians were prevented from owning tribal lands.

B American Indians were allowed to attend private schools.

C American Indians were prevented from serving in the military.

D American Indians were allowed to participate in the political process.

Study the information. Then answer the following four questions.

Source A

President Roosevelt has cleverly camouflaged a most amazing and startling proposal for packing the Supreme Court. . . . Increasing the number of judges from nine to fifteen would not make this high tribunal act any more promptly than it does now, but it would give the President control of the Judiciary Department.

. . . The President is mistaken, if he thinks he can conceal his real purpose of packing, influencing and controlling the Supreme Court . . . The Supreme Court has been the anchor that has held America safe through many storms. Its absolute independence and integrity must never be in doubt.

Our Government is composed of three departments, Legislative, Executive and Judiciary. These are the foundations of our Democracy. As a result of the election and the transfer of powers by so-called emergency measures, the Executive now dominates the Legislative Department. The President now proposes also to dominate the Judiciary.

Do we want to give to this man or any one man complete control of these three departments of our Government which, from the beginning of the Republic, have been kept entirely separate and independent? This proposal should give every American grave concern for it is a step towards absolutism and complete dictatorial power.

—Frank Gannett, Gannett Publishing, Rochester, New York, February 23, 1937

Source B

—*Waterbury Connecticut Republican*, 1937

Source C

Carmichael v. Southern Coal & Coke Company (1937)

Facts of the case:

The Social Security Act sets up a scheme for providing unemployment benefits for workers. Employers are to pay certain percentages of an employee's monthly payroll into the state's unemployment compensation fund, and each employee is required to contribute to the fund as well. The fund is to be used by the states to pay unemployment benefits.

5–4 DECISION FOR SOCIAL SECURITY ACT

Decision of the Supreme Court:

"The Act, as an Act taxing employers, is within the state taxing power. . . . The expenditure under the Act serves a public purpose. Relief of unemployment is such a public purpose. When public evils ensue from individual misfortunes or needs, the legislature may strike at the evil at its source. . . . The pooled-fund plan provides for a pooling of all contributions in a single undivided fund from which benefits are paid to eligible employees."

—Chief Justice Charles Evans Hughes, U.S. Supreme Court, Volume 301

10 The plan described in Source A and Source B was intended

A to guarantee the ratification of new amendments.

B to increase the influence of the executive branch.

C to provide the unemployed with government benefits.

D to stabilize the economy after a series of bank failures.

11 Source C supports the idea that many New Deal programs were

A exempt from review of the courts.

B challenged in the courts.

C created to regulate banks.

D designed to limit the rights of workers.

12 The creators of Source A and Source B would **most likely** agree with which statement?

A The judicial branch should be more powerful than the executive branch.

B The New Deal is a temporary fix to a larger problem.

C The Social Security Act violates basic liberties.

D The plan to stack the court is unconstitutional.

13 Which conclusion is **best** supported by Sources A, B, and C?

A President Roosevelt wanted greater assurance that his New Deal programs would not be struck down in court.

B President Roosevelt wanted more control over the House of Representatives and the Senate.

C President Roosevelt wanted to be sure that his actions would not lead to his impeachment by Congress.

D President Roosevelt wanted to increase the likelihood that the Republican Party controlled the judiciary.

14

1912 Presidential Election Results by Party

Party	Popular Vote (%)	Electoral Vote (%)
Democratic (Wilson)	43	82
Republican (Taft)	24	2
Progressive (Roosevelt)	28	16

Former Republican President Theodore Roosevelt ran for president on a third-party ticket in 1912. This table **best** supports which claim about third parties?

A Third parties divert attention from important issues.

B Third-party candidates introduce new ideas into elections.

C Third parties are typically better funded than major parties.

D Third-party candidates usually draw votes away from one major party.

15

> You have a row of dominoes set up, you knock over the first one, and what will happen to the last one is the certainty that it will go over very quickly.
>
> —President Dwight D. Eisenhower, referring to the spread of communism in Southeast Asia, 1954

Which U.S. action was a direct result of President Eisenhower's theory about communism in Vietnam?

A the deployment of additional troops to South Vietnam

B the call for public demonstrations against the Vietnam War

C the decision to negotiate a treaty with North Vietnamese leaders

D the order to end the bombing of North Vietnamese military bases

GO ON ▶

16

Executive Order 11,246 (1965) required federal contractors to take affirmative action to recruit and employ minorities.

President Lyndon B. Johnson issued this executive order **primarily** to

A eliminate poverty in rural areas.

B reverse the effects of past discrimination.

C reduce the wage gap between men and women.

D end negotiations between labor unions and laborers.

17

Events in President Bill Clinton's Administration

September 1993—President Clinton promotes negotiations between Yasir Arafat of the Palestine Liberation Organization and Yitzhak Rabin of Israel.

September 1994—President Clinton sends President Jimmy Carter to Haiti to negotiate the removal of the Haitian dictator.

November 1995—President Clinton sponsors negotiations among the leaders of Serbia, Croatia, and Bosnia.

These events **best** demonstrate President Clinton's

A commitment to peace.

B plans for a world trade organization.

C efforts to negotiate economic sanctions.

D hesitancy to become involved in international affairs.

GO ON ▶

18

During the early 1900s, a group of American writers called muckrakers wrote extensively about corruption, economic inequalities, and social hardships in urban areas in the United States.

How did the work of these writers **most** affect the United States?

A by contributing to public support for going to war

B by encouraging public support for progressive reforms

C by influencing politicians to pass immigration quotas

D by limiting the growth of labor unions

19

In late 1919 and early 1920, U.S. Attorney General A. Mitchell Palmer authorized a series of government raids to arrest suspected radicals in the United States. The raids became known as the "Palmer Raids" and were considered highly unsuccessful and resulted in the Department of Justice receiving a lot of criticism. In addition, the overall constitutionality of the raids was brought into question.

Based on this information, the government was criticized for failing to

A defend the country from a foreign enemy.

B protect the civil liberties of individual citizens.

C pass legislation to limit political corruption.

D enact reforms to prevent an economic depression.

20

> At the height of the 1920s, average Americans spent more and more of their disposable income on major durable consumer goods . . . The advertising industry grew to match. By the end of the 1920s, an increasingly sophisticated advertising industry had integrated new techniques . . . into the marketing process. Marketing efforts accelerated to match businesses' rapid introduction of new products and services to satisfy consumer markets.
>
> — Library of Congress

Which factor **most** contributed to the trend described in this excerpt?

A allowing labor unions to strike for better wages

B implementing regulations to break up monopolies

C establishing policies and quotas to restrict immigration

D using credit and installment plans to make purchases

21

Selected Events Leading to the Start of World War II in Europe

October 1935	Italy invades Ethiopia.
March 1936	Nazi Germany marches into the Rhineland, previously demilitarized from the Treaty of Versailles.
October 1936	Hitler and Mussolini form the Rome-Berlin Axis.
March 1938	Nazi Germany occupies the Sudetenland, previously Western Czechoslovakia.
September 1938	Great Britain and France agree to the Nazi occupation of the Sudetenland at the Munich Conference.
March 1939	Nazi Germany occupies all of Czechoslovakia.
September 1939	Nazi Germany invades Poland.

How did the British policy of appeasement and U.S. isolationist policies contribute to these events?

A by allowing Fascist leaders to become more aggressive

B by preventing Fascist countries from joining the League of Nations

C by permitting Fascist countries to be members of the UN Security Council

D by limiting the ability of Fascist leaders to make military alliances

22

The concept of mutually assured destruction (MAD) developed during the Cold War between the two superpowers, the United States and the Soviet Union. Mutually assured destruction was based on the belief that an attack by one superpower would be met with an overwhelming counterattack by the other. The end result would be that both the attacker and defender would be completely destroyed.

How did this doctrine affect the United States and the Soviet Union?

A It led to a military alliance between the countries.

B It resulted in both countries sharing nuclear technology.

C It resulted in both countries continuing to develop nuclear weapons.

D It led both countries to sign a free trade agreement with each other.

23

Source: National Park Service

Arriving at Ellis Island

How did this island **most** contribute to the development of the United States during the early 1900s?

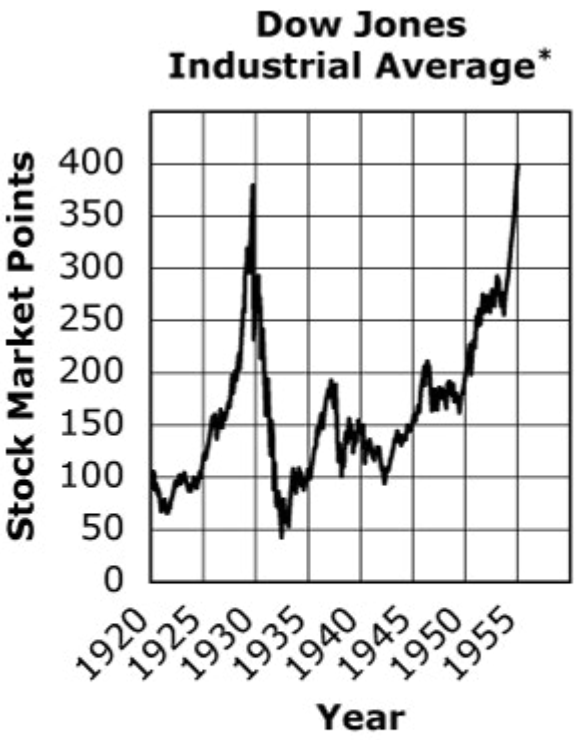
A by hosting cultural events for immigrants

B by serving as a naval base for the Great White Fleet

C by operating as the largest processing station for immigrants

D by providing housing for ambassadors from European nations

24



*The Dow Jones Industrial Average is a stock market index that tracks the stock value of large companies traded in the New York Stock Exchange.

Source: Federal Reserve

How did the trend shown in this graph affect the U.S. economy between 1929 and 1934?

A It led to increasing rates of employment.

B It contributed to a decline in industrial production.

C It led to increasing trust in financial institutions.

D It contributed to decreasing rates of poverty.

25

In the middle of the 20th century, a nationwide movement for equal rights for African Americans and for an end to racial segregation and exclusion arose across the United States. This movement took many forms, and its participants used a wide range of means to make their demands felt. . . . By the end of the 1960s, the civil rights movement had brought about dramatic changes in the law and in public practice, and had secured legal protection of rights and freedoms for African Americans that would shape American life for decades to come.

—Library of Congress

Match the **three** leaders with the phrases that **best** describe them.

Leaders	Descriptions
	believed that violence was acceptable for achieving social change when it was used in self-defense
Dr. Martin Luther King Jr.	
	argued the *Brown v. Board of Education* case and later became a Supreme Court Justice
Malcolm X	
Thurgood Marshall	
	believed that peaceful protest could help bring about social equality

26

Incorporation Doctrine

Case	Results
Gitlow v. New York (1925)	Freedom of speech
Mapp v. Ohio (1961)	Freedom from unreasonable search and seizure
Gideon v. Wainwright (1963)	Right to counsel

How did the application of this doctrine **most** affect the United States?

A by further securing the individual rights of citizens

B by further protecting states' authority to pass laws

C by reducing the courts' authority to conduct judicial review

D by reducing protections for people accused of a crime

27

In the future days, which we seek to make secure, we look forward to a world founded upon four essential human freedoms.

The first is freedom of speech and expression—everywhere in the world.

The second is freedom of every person to worship God in his own way—everywhere in the world.

The third is freedom from want—which, translated into world terms, means economic understandings which will secure to every nation a healthy peacetime life for its inhabitants—everywhere in the world.

The fourth is freedom from fear—which, translated into world terms, means a world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor—anywhere in the world.

—President Franklin D. Roosevelt, "Four Freedoms Speech," January 1941

What was the **primary** goal of this speech?

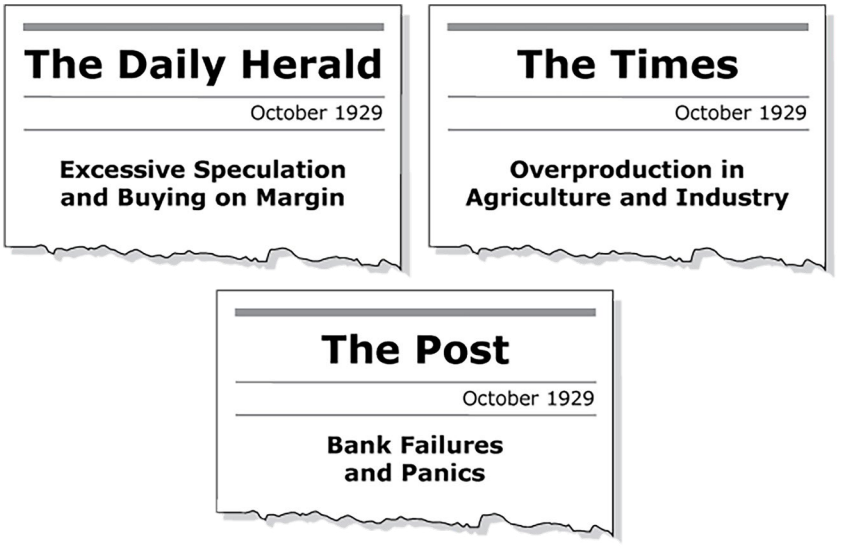
A to declare war on Japan after the attack on Pearl Harbor

B to rally public support for involvement in World War II

C to announce the creation of the United Nations

D to address the economic problems of the Great Depression

28



How did the issues described in these headlines affect the United States?

A by contributing to an unstable economy

B by leading to the elimination of the New Deal

C by contributing to the entry into World War II

D by leading to the passage of isolationist policies

29

> I have faith in the judgment of the great mass of the American people and believe that they will eagerly avail[1] themselves of the opportunity to bring the Senate nearer to the people and make it more quickly responsive to the public will, and that the amendment will be speedily ratified.
>
> —Senator Joseph Bristow of Kansas, May 15, 1912

[1]avail: help or benefit

What was the intended purpose of the amendment referenced in this speech?

A to grant women the right to serve in the Senate

B to allow for the direct election of senators

C to allow for the presidential appointment of senators

D to enable the Senate to appoint state legislatures

30

1991 Gulf War Coalition by Country

Key

▨ = Coalition countries

What was the **primary** goal of President George H. W. Bush in building this coalition?

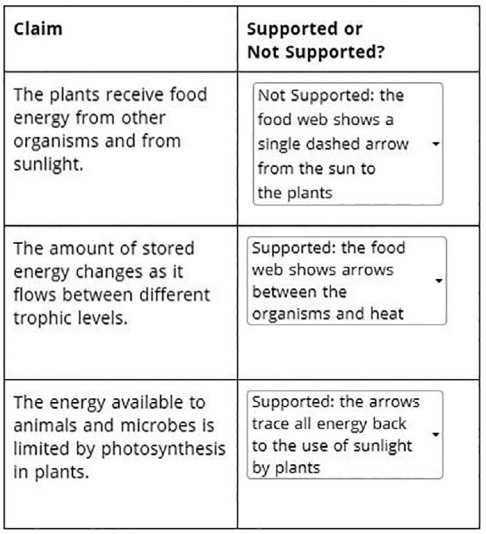
A to oppose Iraqi military aggression within the Middle East region

B to force the Iraqi government to support a military alliance within the Middle East

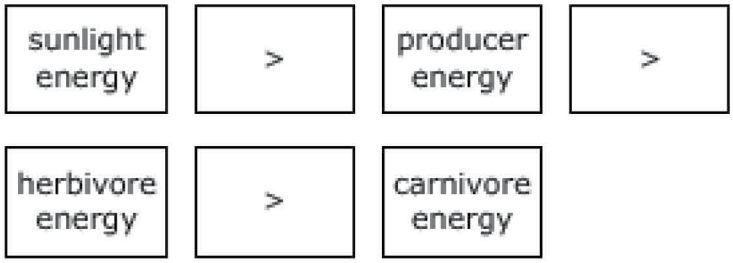
C to encourage Iraq to sign a free trade agreement with Middle Eastern nations

D to negotiate human rights agreements between Iraq and Middle Eastern countries

STOP

<table>
<tr><th colspan="3">Science</th></tr>
<tr><th>Number</th><th>Reporting Category</th><th>Item Distractor Rationales</th></tr>
<tr><td>1</td><td>Life Science</td><td>A. The student may think energy is stored as heat energy in food.
B. The student may think that energy and matter within a system can be lost from a system instead of being transformed to different forms or transferred to different organisms within the system.
C. The student may think heat flows in all directions, and food energy is stored as biomass.
D. Correct. Food is used to produce biomass, and this conversion leads to a loss of heat energy from one trophic level to the next higher trophic level, reducing the energy stored as biomass.</td></tr>
<tr><td>2</td><td>Life Science</td><td>Scoring Rubric
<table>
<tr><th>Score</th><th>Description</th></tr>
<tr><td>2</td><td>Students select 3 correct options.</td></tr>
<tr><td>1</td><td>Students select 2 correct options.</td></tr>
<tr><td>0</td><td>Students select 1 or no correct options.</td></tr>
<tr><td>Blank</td><td>The response was left blank.</td></tr>
</table>
Sample Response


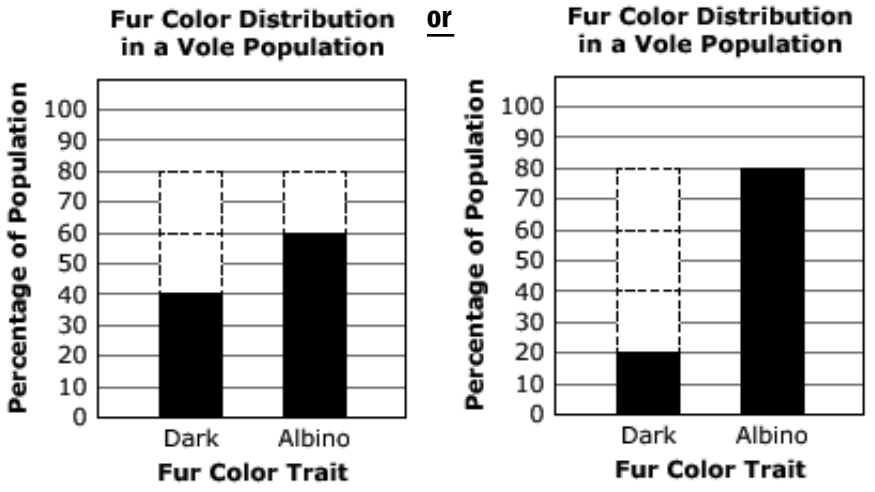
Rationale
Plants receive energy for food only from the Sun. As shown by the loss of heat, the total amount of energy at each trophic level changes. The plants are the only producers shown in the diagram and therefore are the only source of food energy within the system for consumers and decomposers.</td></tr>
</table>

<table>
<tr><th colspan="3">Science</th></tr>
<tr><th>Number</th><th>Reporting Category</th><th>Item Distractor Rationales</th></tr>
<tr><td>3</td><td>Life Science</td><td>
Scoring Rubric
<table>
<tr><th>Score</th><th>Description</th></tr>
<tr><td>2</td><td>Students place 4 options in the correct location.</td></tr>
<tr><td>1</td><td>Students place 3 options in the correct location.</td></tr>
<tr><td>0</td><td>Students place 2 or fewer options in the correct location.</td></tr>
<tr><td>Blank</td><td>The response was left blank.</td></tr>
</table>
Sample Response


Rationale
The energy available at each trophic level decreases from each successive trophic level to the next, so the original energy source from the Sun would have the greatest amount of energy and the amount of energy would then progressively decrease from producers to herbivores to carnivores.
</td></tr>
<tr><td>4</td><td>Physical Science</td><td>
A. The student may think that the moving chain is potential energy.
B. The student may think that the moving wheel is potential energy.
C. The student may think that the moving generator is potential energy.
D. Correct. As the rear wheel rubs on the generator, causing it to spin, one form of mechanical energy is converted to thermal energy due to friction.
</td></tr>
<tr><td>5</td><td>Physical Science</td><td>
A. The student may not understand that they should consider watt-hours.
B. Correct. Although sufficient watt-hours are produced, not all energy stored in the battery can be put to use.
C. The student may not understand that they should consider watt-hours.
D. The student may not understand that they should also look at the 30-minute test data.
</td></tr>
</table>

Science		
Number	**Reporting Category**	**Item Distractor Rationales**
6	Physical Science	A. The student may not understand that the ratio between the gear sizes is the variable needed to be changed. B. The student may not understand that making both gears smaller will not change the ratio between gear sizes. C. The student may not understand that in this scenario, the gear ratio decreases because gear B is increasing in size, and the rpm for gear B decreases. This increases the amount of time needed to charge the battery. **D. Correct. In this scenario the gear ratio increases, and the rpm for gear B increases, decreasing the amount of time needed to charge the battery.**
7	Life Science	A. The data suggests that swallows with smaller average body sizes would become less frequent in the population since having less fat stores would increase the likelihood of birds with smaller bodies dying when temperatures are below-average. **B. Correct. An increase in the frequency of below-average temperatures would likely increase the proliferation of birds with larger body sizes that are more likely to survive and reproduce.** C. The data suggests that birds with larger body sizes would become more frequent in the population if below-average temperatures became more common, since birds with larger body sizes that survive are likely to also reproduce and pass down that body size trait. D. Students may think that evolution and speciation are the same, but a proliferation of birds with larger body sizes occurs because of differential survival and reproduction, not speciation.
8	Life Science	**A. Correct. Fewer offspring with smaller body sizes after below-average temperatures suggests that fewer parent birds with smaller body sizes were reproducing and passing down the small body size trait.** B. Students may think that change happens as a result of choice and that birds can intentionally choose to have larger bodies. C. Students may think that evolution is the same as speciation. D. Students may think that traits that are not used are lost.
9	Life Science	A. While the graphs indicate that this is true, this statement does not indicate how differences in body size arose due to differential survival and reproduction. B. While the graphs indicate that this can occur, this statement does not indicate how differences in body size arose due to differential survival and reproduction. **C. Correct. This statement is supported by the graphs and explains why body size resulted from natural selection, indicating that body size is a trait variant that was acted upon by natural selection because cliff swallows with a particular variant had a greater chance of surviving to reproduce than cliff swallows with other trait variants.** D. This statement is not evidenced from the graphs and does not refer to differential survival as part of how body size resulted from natural selection.

Science		
Number	**Reporting Category**	**Item Distractor Rationales**
10	Physical Science	A. The student may think that proton number should match valence electrons. B. The student may think that the first electron shell is filled and then there are two valence electrons. C. The student may think that this model represents two valence electrons and that there should be an equal number of protons. **D. Correct. The number of valence electrons matches number of protons, and the number of nuclear particles matches atomic mass.**
11	Physical Science	A. The student may be confused about the organization of the periodic table. **B. Correct. This pattern is seen for He, Ne, and Ar, as well as for Cl and F.** C. The student may have confused density with reactivity. D. The student may think that density increases proportionally with atomic mass.
12	Physical Science	**A. Correct. Because hydrogen has one electron in its valence shell, it is highly reactive, giving up this electron freely during reactions.** B. The student may think that hydrogen reacts to fill an octet. C. The student may be confused about the relationship between neutrons and the organization of the periodic table and think that hydrogen reacts to balance protons to electrons. D. The student may be confused about the relationship between neutrons and the organization of the periodic table and think that hydrogen reacts based on the numbers of neutrons and electrons.
13	Life Science	A. The student may think that plant spacing not having a clear effect on the vole population will support the hypothesis. B. The student may think that showing a bias against dark-furred voles in thick plant spacing will support the hypothesis. **C. Correct. The graph shows that albino survival decreases and plant spacing increases.** D. The student may think that showing greater numbers of albino voles relative to dark-furred voles supports the hypothesis.

<table>
<tr><th colspan="3">Science</th></tr>
<tr><th>Number</th><th>Reporting Category</th><th>Item Distractor Rationales</th></tr>
<tr><td rowspan="7">14</td><td rowspan="7">Life Science</td><td colspan="2">Scoring Rubric</td></tr>
<tr><td>Score</td><td>Description</td></tr>
<tr><td>2</td><td>Students select the Dark bar showing 40% and Albino bar showing 60% OR Dark bar showing 20% and Albino bar showing 80%.</td></tr>
<tr><td>1</td><td>Students select the Dark bar showing 20% and Albino bar showing 60% OR Dark bar showing 40% and Albino bar showing 80%.</td></tr>
<tr><td>0</td><td>Students select some other combination.</td></tr>
<tr><td>Blank</td><td>The response was left blank.</td></tr>
<tr><td colspan="2">Sample Response
 

Rationale
More albino voles will most likely be captured since their color will better match the snow than dark-furred voles. The combined percentages should total 100%.</td></tr>
</table>

<table>
<tr><th colspan="3">Science</th></tr>
<tr><th>Number</th><th>Reporting Category</th><th>Item Distractor Rationales</th></tr>
<tr><td>15</td><td>Life Science</td><td>
Scoring Rubric
<table>
<tr><th>Score</th><th>Description</th></tr>
<tr><td>2</td><td>Students select 4 correct matches.</td></tr>
<tr><td>1</td><td>Students select 3 correct matches.</td></tr>
<tr><td>0</td><td>Students select 2 or fewer correct matches.</td></tr>
<tr><td>Blank</td><td>The response was left blank.</td></tr>
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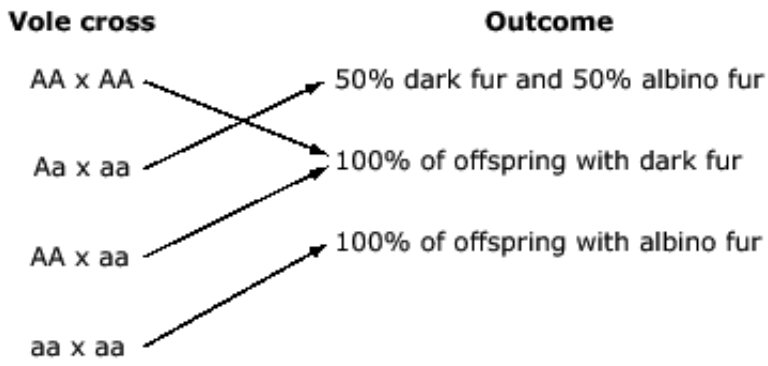
Sample Response


Rationale
The cross AA x AA and AA x aa yields 100% of offspring with dark fur because all offspring will inherit either the AA or Aa genotype. The cross Aa x aa yields 50% of offspring with dark fur and 50% with albino fur because offspring have a 50% chance of inheriting either the Aa or aa genotype. The cross aa x aa yields 100% of offspring with albino fur because all the offspring will inherit the aa genotype.
</td></tr>
<tr><td>16</td><td>Life Science</td><td>
A. This graph incorrectly suggests that v remains constant regardless of the λ.
B. Correct. The v of sound increases as it travels from water to muscle since f remains constant and λ increases, so the graph should show that v and λ are directly proportional.
C. Students may think that the λ decreases as the v increases.
D. The relationship between v and λ is directly proportional, not parabolic.
</td></tr>
<tr><td>17</td><td>Life Science</td><td>
A. This statement is incorrect because a lower frequency sound wave would have a longer wavelength, and the data show the speed of sound increases as it travels through blood and muscle.
B. While lower frequency sound waves would have longer wavelengths, the data show the speed of sound increases as it travels through blood and muscle.
C. While the speed of sound increases as it travels through blood and muscle, the mathematical equation shows lower frequency sounds have longer wavelengths.
D. Correct. When the sound waves produced by a dolphin travel between media, the wavelength and speed of the sound wave changes so that a lower frequency sound would have a longer wavelength. This would result in the sound traveling a greater distance.
</td></tr>
</table>

Science		
Number	**Reporting Category**	**Item Distractor Rationales**
18	Life Science	A. Wavelength and frequency are inversely proportional instead of directly proportional. B. Wavelength and frequency are inversely proportional instead of directly proportional, which means that shorter wavelength sound waves are higher frequency. **C. Correct. Based on the mathematical equation, shorter wavelength sound waves are higher frequency.** D. Lower frequency sound waves are longer wavelength, and based on the mathematical equation, dolphins would need to produce waves with a higher frequency to produce shorter wavelength sound waves.
19	Life Science	A. Expending energy on this behavior would not increase the chances that individual degus survive as degus need energy to perform other functions that are necessary for survival. B. Increased exposure to predators would increase the risk that individual degus get eaten while aboveground, even when they are vigilant. **C. Correct. Evidence from the graph indicates that as the degu group size increases, degus with the lookout behavior are better able to detect predators from farther distances, which would likely result in individual degus having a better chance of being alerted to nearby predators so they can seek shelter in their burrows.** D. Having to travel a certain distance to the nearest burrow entrance would increase the risk of exposure to predators aboveground before individual degus could take shelter.
20	Life Science	**A. Correct. By having a source of food that individual degus can access as members of a group, young degus are more likely to survive before they can gather food for themselves.** B. This evidence does not sufficiently indicate how spending time gathering food relates to the amount of food that individual degus have access to. C. This evidence does not indicate how traveling a farther distance from other degus in the group would benefit young degus. D. Increased competition for food between young degus would likely reduce the access young degus have to gathered food.
21	Life Science	**A. Correct. By building burrows that are underground and providing shelter to raise offspring, it is more likely that the genetic relatives of degus of this species will survive.** B. Since degus are exposed to predators abovegound during burrow building and many individuals could be eaten, this statement contradicts the student's claim. C. The evidence contradicts this statement since degus in a group dig in the same holes and therefore spend less time constructing burrows since those burrows are built faster. It would also not be beneficial for the degus to lack shelter for a longer period of time. D. Degus in a group dig in the same holes and spend less time and energy digging burrows as a group than as solitary degu, suggesting that by building burrows together, degus in a group have more energy for other activities such as reproduction.

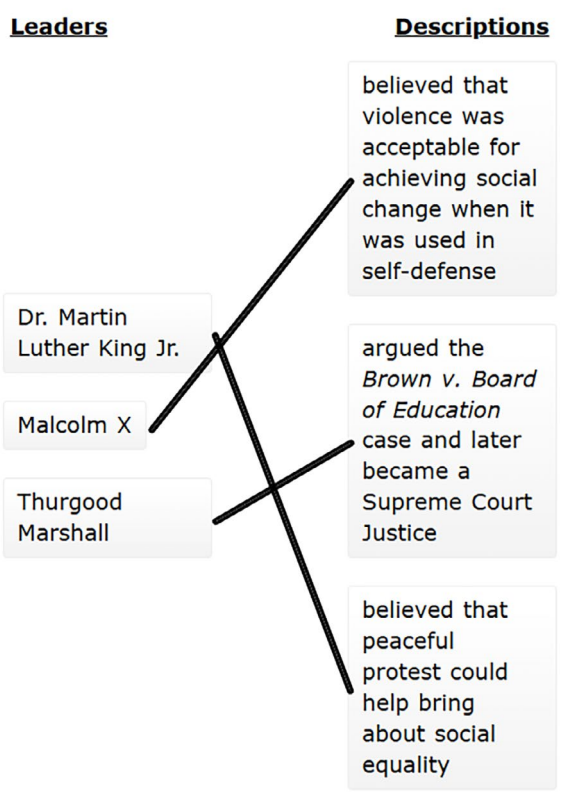
Science		
Number	**Reporting Category**	**Item Distractor Rationales**
22	Physical Science	A. Using less wire would lower the resistance but it is negligible. B. Adding another light bulb would not change the energy in the circuit. **C. Correct. Moving the magnet back and forth creates a changing magnetic field, generating an electric field that moves the electrical energy through the wire.** D. Making fewer turns in the wire coils would decrease the electrical current and it does not add energy to the circuit.
23	Physical Science	A. The magnet does not touch the coil, so friction is not produced. B. The spinning magnet does not move fast enough to produce heat, and there is no conversion method for the heat energy to electrical energy in the electromagnet. **C. Correct. Electric current, which comes from the electric field, is only produced when the magnetic field is changing due to the spinning magnet.** D. The coil does not move even though the spinning magnet creates a magnetic field.
24	Physical Science	**A. Correct. By doing this, students could determine how changing the strength of a magnet affects the electrical current that is produced.** B. Removing the light bulb takes away a location for the electric current to go but does not affect the amount of electric current. C. The length of each trial does not affect the magnetic field strength or electric current. D. Measuring the current on a different part of the circuit would not affect the magnetic field strength.

U.S. History		
Number	**Reporting Category**	**Item Distractor Rationales**
1	U.S. History	A. To repay loans the U.S. made to the Soviet Union was not a main goal of the Marshall Plan. **B. Correct. This source is about the Marshall Plan, which was an initiative led by George Marshall to provide support to countries in order to stop the spread of communism.** C. To take over western European governments was not a main goal of the Marshall Plan. D. To aid the Soviet Union in rebuilding its military strength was not a main goal of the Marshall Plan.
2	U.S. History	A. Chief Joseph isn't saying he is tired of fighting against the intermarriage of U.S. citizens and American Indians. B. Chief Joseph isn't saying he is tired of fighting the cultural exchange between U.S. citizens and American Indians. **C. Correct. In this source, Chief Joseph indicates that he is tired of fighting against the forced relocation of American Indians to reservation lands.** D. Chief Joseph isn't saying he is tired of fighting the patriarchal society forced on American Indian groups by settlers.
3	Civics	A. Theodore Roosevelt's Corollary to the Monroe Doctrine was not used as justification for American intervention in Cuba. B. Theodore Roosevelt's Corollary to the Monroe Doctrine was not used as justification for American intervention in Hawaii. C. Theodore Roosevelt's Corollary to the Monroe Doctrine was not used as justification for American intervention in Samoa. **D. Correct. Theodore Roosevelt's Corollary to the Monroe Doctrine was used as justification for American intervention in Panama.**
4	U.S. History	**A. Correct. The creator of Source B would most likely agree that it is the duty of the United States to liberate oppressed peoples.** B. The creator of Source B would not agree that American foreign policy should be less invasive and more helpful. C. The creator of Source B would not agree that American intervention is sometimes harmful to native populations. D. The creator of Source B would not agree that it is the responsibility of the United States to promote isolationism.
5	U.S. History	A. William Jennings Bryan would not support a war against Spain. B. William Jennings Bryan would not support imperialism. **C. Correct. William Jennings Bryan would most likely oppose the annexation of Hawaii.** D. William Jennings Bryan would not oppose a decrease in troops overseas.
6	U.S. History	A. The sources do not show that the majority of citizens were in favor of annexing new territories overseas. **B. Correct. "The global influence of the United States expanded rapidly during the early 20th century" is the best conclusion for the sources.** C. The sources do not show that few politicians believed in the financial benefits of supporting the white man's burden. D. The sources do not show that few countries could compete economically with the United States during the early 20th century.

U.S. History		
Number	**Reporting Category**	**Item Distractor Rationales**
7	U.S. History	A. The data in the graph do not show that the Allied Powers had no need for U.S. exports. **B. Correct. The data in the graph show that the U.S. desire for strict neutrality was difficult to meet due to the differing amount of exports the U.S. shipped to the Allied vs. Central powers.** C. The data in the graph do not show that the value of U.S. exports remained constant during the war. D. Although the data in the graph show that there was a significant decrease in the amount of goods exported to the Central Powers, that was because the United States was more closely aligned with the Allied Powers and not because the Central Powers no longer wanted to trade with the United States for weapons.
8	Civics	**A. Correct. The goals listed in the list were all part of the Women's Liberation Movement.** B. The Temperance Movement is most related to the prohibition of alcohol. C. The Black Power Movement is most associated with achieving equal rights for Black citizens. D. The Women's Suffrage Movement was primarily about granting women the right to vote.
9	Civics	A. The passage of the Indian Citizenship Act of 1924 did not prevent American Indian tribes from owning tribal lands. B. American Indians were allowed to attend private schools before the passage of the Indian Citizenship Act of 1924. C. The Indian Citizenship Act of 1924 granted American Indians U.S. citizenship and did not prevent them from serving in the military. **D. Correct. The Indian Citizenship Act of 1924 granted American Indians U.S. citizenship, which gave them the right to vote in elections.**
10	Civics	A. Sources A and B do not describe a plan that guarantees the ratification of new amendments. **B. Correct. Sources A and B describe a plan that was intended to increase the influence of the executive branch.** C. Sources A and B do not describe a plan to provide the unemployed with government benefits. D. Sources A and B do not describe a plan to stabilize the economy after a series of bank failures.
11	Civics	A. Source C provides evidence that the Supreme Court reviewed New Deal programs and that the New Deal programs were not exempt from judicial review. **B. Correct. Source C supports the idea that many New Deal programs were challenged in the courts.** C. Although there were New Deal programs that regulated banks, Source C does not support this idea. D. Source C does not show that New Deal programs were designed to limit the rights of workers.

U.S. History		
Number	**Reporting Category**	**Item Distractor Rationales**
12	U.S. History	A. The creators of Sources A and B would not agree that the judicial branch should be more powerful than the executive branch. B. The creators of Sources A and B would not agree that the New Deal was a temporary fix to a larger problem. C. The creators of Sources A and B would not agree that the Social Security Act violated basic liberties. **D. Correct. The creators of Sources A and B would most likely agree that the plan to stack the court was unconstitutional.**
13	Civics	**A. Correct. According to the sources, President Roosevelt wanted greater assurance that his New Deal programs would not be struck down in court.** B. The sources do not show that President Roosevelt wanted more control over the House of Representatives and the Senate. C. The sources do not show that President Roosevelt wanted to be sure that his actions would not lead to his impeachment by Congress. D. The sources do not show that President Roosevelt wanted to increase the likelihood that the Republican Party controlled the judiciary.
14	Civics	A. While some third-party candidates may divert attention from issues, the data in the chart do not support this answer. B. While third-party candidates may introduce new ideas into elections, the data in the chart do not support this answer. C. While third-party candidates receive campaign contributions, the data in the chart do not support this answer. **D. Correct. This source supports the claim that a third-party candidate draws votes away from one major party.**
15	U.S. History	**A. Correct. The deployment of additional troops to South Vietnam was a direct result of President Eisenhower's theory about communism in Vietnam.** B. The call for public demonstrations against the Vietnam War was not a direct result of President Eisenhower's theory about communism in Vietnam. C. The decision to negotiate a treaty with North Vietnamese leaders was not a direct result of President Eisenhower's theory about communism in Vietnam. D. The order to end the bombing of North Vietnamese military bases was not a direct result of President Eisenhower's theory about communism in Vietnam.
16	U.S. History	A. President Lyndon B. Johnson did not issue Executive Order 11,246 to eliminate poverty in rural areas. **B. Correct. President Lyndon B. Johnson issued Executive Order 11,246 in order to reverse the effects of past discrimination.** C. President Lyndon B. Johnson did not issue Executive Order 11,246 to reduce the wage gap between men and women. D. President Lyndon B. Johnson did not issue Executive Order 11,246 to end negotiations between labor unions and laborers.

U.S. History		
Number	**Reporting Category**	**Item Distractor Rationales**
17	U.S. History	**A. Correct. The events in the source best demonstrate President Bill Clinton's commitment to peace.** B. The events in the source do not demonstrate President Bill Clinton's plans for a world trade organization. C. The events in the source do not demonstrate President Bill Clinton's efforts to negotiate economic sanctions. D. The events in the source do not demonstrate President Bill Clinton's hesitancy to get involved in international affairs.
18	U.S. History	A. The writings of the muckrakers did not contribute to public support to go to war. **B. Correct. The writings of the muckrakers brought attention to the political corruption, economic inequalities, and social hardships that many people experienced in urban areas. This increased attention led to an increase in public support for the passage of progressive reforms.** C. The writings of the muckrakers did not lead to the passage of immigration quotas. D. The writings of the muckrakers did not limit the growth of labor unions.
19	U.S. History	A. The Palmer Raids were an attempt to deal with suspected radicals and unrest within the United States, not a foreign enemy. **B. Correct. The Palmer Raids were criticized because many citizens claimed that they violated the constitutional rights of citizens.** C. The Palmer Raids were not an attempt to limit political corruption. D. The Palmer Raids were not an attempt to avoid an economic depression.
20	U.S. History	A. Labor unions striking for better wages was not a significant factor that contributed to the increase in consumerism during the 1920s. B. The implementation of regulations to break up monopolies was not a significant factor that contributed to the increase in consumerism during the 1920s. C. The creation of quotas to restrict immigration was not a factor that contributed to the increase in consumerism during the 1920s. **D. Correct. During the 1920s, many Americans purchased automobiles and household goods using credit and installment plans.**
21	U.S. History	**A. Correct. The policies of appeasement and isolationism emboldened fascist leaders to become more aggressive because they did not fear a response from Great Britain or the United States.** B. The policies of appeasement and isolationism were not related to the League of Nations or preventing countries from joining. C. The United Nations was formed after the defeat of the fascist countries in World War II, not before the war. D. The policies of appeasement and isolationism did not prevent fascist leaders from creating military alliances with each other. The Axis powers was a military alliance of fascist countries.

U.S. History		
Number	**Reporting Category**	**Item Distractor Rationales**
22	U.S. History	A. The doctrine of Mutually Assured Destruction (MAD) did not result in the United States and Soviet Union creating a military alliance with each other. B. The doctrine of Mutually Assured Destruction (MAD) did not result in the United States and Soviet Union sharing nuclear technology with each other. **C. Correct. The doctrine of Mutually Assured Destruction (MAD) resulted in both countries continuing to develop more nuclear weapons.** D. The doctrine of Mutually Assured Destruction (MAD) did not result in the United States and Soviet Union signing a free trade agreement with each other.
23	U.S. History	A. Ellis Island was not used to host cultural events for immigrants during the early 1900s. B. Ellis Island was not used as a naval base. **C. Correct. Ellis Island was the largest immigrant processing center in the United States during the late 1800s and early 1900s.** D. Ellis Island was not used as a housing facility for foreign diplomats.
24	U.S. History	A. The 1929 stock market crash resulted in mass unemployment, not an increase in employment. **B. Correct. The 1929 stock market crash resulted in a decline in industrial production as the country entered the Great Depression.** C. The 1929 stock market crash resulted in a loss in public confidence in financial institutions, not an increase in trust. D. The 1929 stock market crash resulted in an increase in poverty, not a decline.
25	Civics	Match the **three** leaders with the phrases that **best** describe them. 

U.S. History		
Number	**Reporting Category**	**Item Distractor Rationales**
26	U.S. History	**A. Correct. The application of the Incorporation Doctrine does ensure the individual rights of U.S. citizens.** B. The application of this doctrine does not protect the state's authority to pass laws. C. The application of this doctrine does not reduce the court's authority to conduct judicial review. D. The application of this doctrine does not reduce protections for people accused of a crime.
27	U.S. History	A. The goal of the Four Freedoms Speech was not not a declaration of war on Japan. **B. Correct. The goal of the Four Freedoms Speech was to rally public support for involvement in WWII.** C. The goal of the Four Freedoms Speech was not to announce the creation of the United Nations. D. The goal of the Four Freedoms Speech was not to address the economic problems of the Great Depression.
28	U.S. History	**A. Correct. The result of an unstable economy is directly connected to the outcomes described in the headlines.** B. The New Deal programs were a major response to economic problems, but not the result of the issues described—it was a solution created afterward by the government to address the Great Depression. C. The U.S. did not enter WWII as a direct result of domestic economic issues, but because of the attack on Pearl Harbor. D. Isolationist policies were more closely connected to reactions after World War I and a desire to avoid foreign entanglements, not caused by domestic economic issues.
29	U.S. History	A. The 17th amendment did not grant women the right to serve in the Senate. **B. Correct. The amendment referenced in this speech is the seventeenth which allowed for the direct election of senators.** C. The 17th amendment did not allow for presidential appointment of senators. D. The 17th amendment did not enable the Senate to appoint state legislatures.
30	U.S. History	**A. Correct. President Bush built a coalition consisting of the NATO allies and the Middle Eastern countries to oppose Iraq's invasion of Kuwait.** B. A military alliance of Middle East countries was not the goal of President Bush. C. A free trade agreement among the Middle Eastern nations was not a goal of President Bush. D. A human rights agreement between Iraq and Middle Eastern countries was not the intention of President Bush in forming a coalition.

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ANSWER SHEET

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Science

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U.S. HISTORY

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9	Ⓐ	Ⓑ	Ⓒ	Ⓓ	19	Ⓐ	Ⓑ	Ⓒ	Ⓓ	29	Ⓐ	Ⓑ	Ⓒ	Ⓓ
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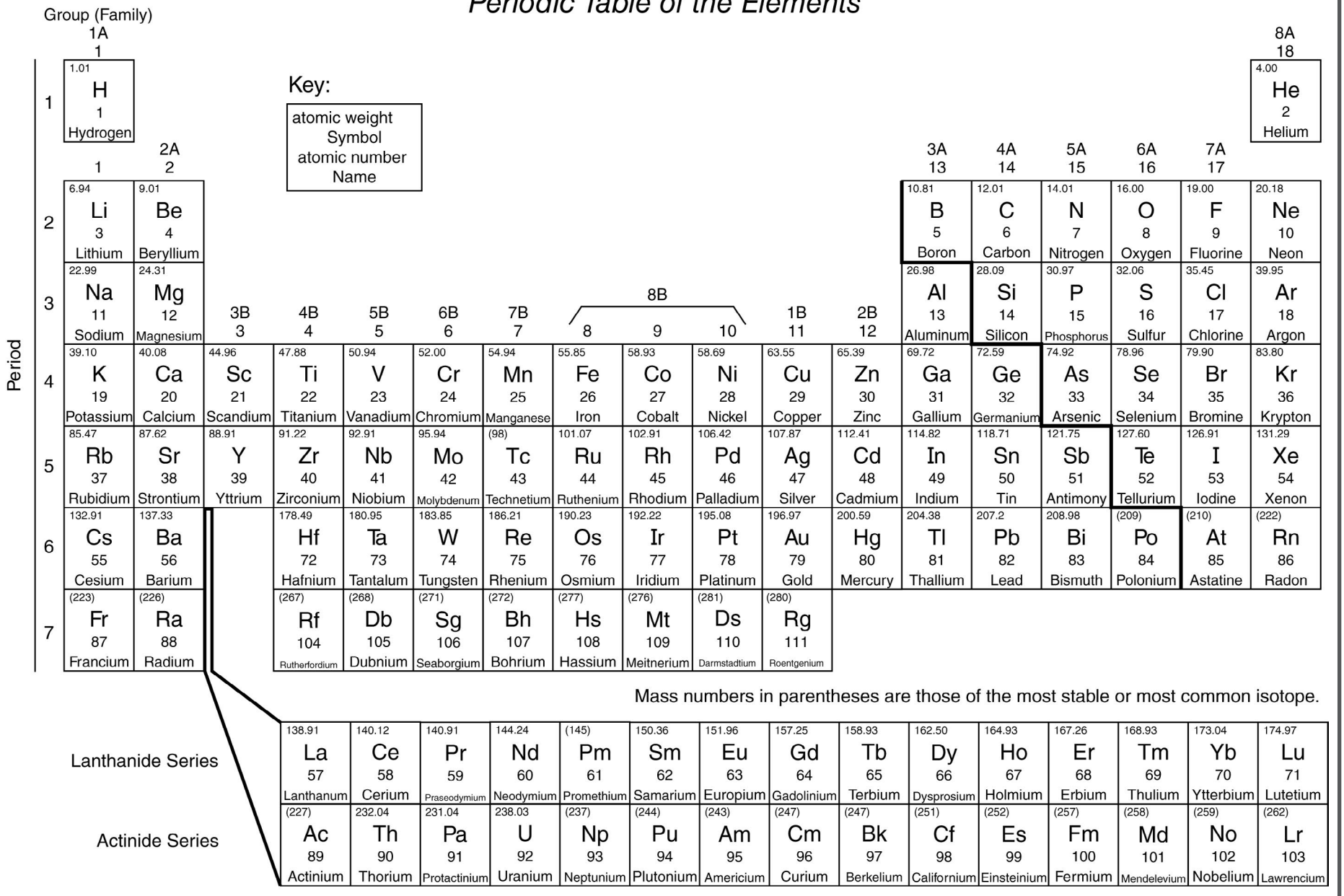
Periodic Table of the Elements



Mass numbers in parentheses are those of the most stable or most common isotope.

*Revised based on IUPAC Commission on Atomic Weights and Isotopic Abundances, "Atomic Weights of the Elements 2007."

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