STAAR® Review to Go Science Grade 5 Volume 2



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What Is STAAR Review to Go: Science?

STAAR Review to Go: Science is a student-centered review resource to be used to address the Science TEKS that, based on current data, have proven challenging for students. Each activity is TEKS-based and may be used to enrich Tier I instruction or as a review at the rigor outlined by the TEKS.

Each review activity is designed to take 15–30 minutes and fit in a file folder to create a convenient and engaging review resource. These activities can be used over 1–2 days or up to two weeks as review activities in science class. They also can be used as Saturday review sessions or during tutorials.

Creating Review Activity Folders

Whether using the review activities in this book or creating your own, you will need the following materials:

- access to a copy machine and/or printer
- cardstock
- clear tape
- envelopes and/or resealable plastic bags
- file folders, preferably a different color for each Reporting Category
- glue and/or glue sticks
- scissors

Create a set (or two, if needed) of Review Activity Folders and place them in stations for students to review over several class periods or make several folders for each activity and have the whole class work through each folder at the same time.

Follow these steps to create a Review Activity Folder:

- 1. Read through the Materials Lists, Advance Preparation, and Teacher Notes sections of the activity pages and gather the materials for the activity.
- 2. Print the Labels, Task Cards, and Student Answer Keys. You may choose to make copies from the book or access the digital files to print in color or black and white. Access digital files at http://r4hub.esc4.net using your login.
- 3. Cut out the Labels, Task Cards, and Student Answer Keys and attach each to the folder. You may choose to follow the sample layout or organize the folder in a way that meets the needs of your students.
- 4. Print copies of the student pages. These are designed to be takeaways for students to use as a study guide.

Using Review Activity Folders

The folder format provides flexible options for review. The following are examples of ways to use the folders:

- <u>Whole Class Review</u>: During one class period, the class works through the same review activity folder(s) and debriefs them together.
- <u>Review Stations</u>: Student groups work through each folder and note any topics for which they have confusion or need further review. The teacher should monitor to detect any misconceptions. These points for review can be addressed individually or as a class to make the best use of class time.
- <u>Individualized Review</u>: Students work through activities that target their areas of greatest need based on formative assessment data.

What Is STAAR Review to Go: Science?

Answer Keys

Answer Keys are included with each activity. Some Answer Keys are embedded in the Teacher Notes and should be printed, cut out, and attached to the folder or Solution Station. Other Answer Keys are provided on sample student pages. The Answer Keys can be used in one of the following ways:

- Place the Answer Key on the back cover of the folder for students to self-check as they work through the activity.
- Place the Answer Key inside the folder in a pocket or under a flap for students to self-check as they work through the activity.
- Plan for students to visit a Solution Station with a labeled Answer Key for each activity.

Debriefing and Providing Feedback

Depending on how the folders are used, the teacher may choose a variety of strategies to provide feedback.

- Use Key Questions and practice assessment items to debrief the review activity. Students should be able to accurately answer these questions following the review.
- Students work through each review activity and use the Answer Key or visit the Solution Station to check their answers. Students should note when they have confusion about a concept so it can be addressed.
- Teachers may choose to be the Solution Station by holding the Answer Keys and discussing student understandings/misconceptions as they check their work.

Using Assessment Data to Create Your Own Review Activities

When planning review activities, assessment data should be used to determine which TEKS must be reviewed thoroughly and which TEKS need minimal review. State assessment data were used to determine the TEKS addressed in *STAAR Review to Go: Science*. Current campus or district data may indicate a need to create review activities for TEKS not addressed in this product.

For a broader view of student assessment trends, use assessment data collected throughout the current year. Most districts have access to data analysis software that can provide performance data at the class, campus, or district level. Consider creating folders following the collection and analysis of data from class, campus, or district assessments so that a set of activities will be ready for use with students when it is time to begin reviewing.

If data analysis software is not available, assessment data from the Texas Education Agency can be helpful in determining which TEKS to target during STAAR review. Statewide item analysis data are available for STAAR assessments beginning in 2013. TEKS with the lowest percentage of correct answers and highest frequency of STAAR assessment questions should be the focus for review.

What Is STAAR Review to Go: Science?

Once the TEKS targeted for review have been identified, evaluate available STAAR Released Test Questions to determine the types of questions that are challenging for students. Some types of questions that challenge students include those that:

- require a calculation
- require students to write and fill in an answer for a griddable item
- require students to analyze charts, graphs, tables or diagrams
- require students to read and understand a large amount of text
- do not provide a visual model to aid students
- require multiple steps to answer

Consider the STAAR Released Test Questions when planning review activities. Ask, "Would this activity help my students master the targeted concept and answer this question successfully?"

References

Auer, V., & Hartill, M. (2014). Vocabulary now! San Clemente, CA: Canter Press.

Seidlitz, J., & Kenfield, K. (2011). *38 great academic language builders*. San Clemente, CA: Canter Press.





Folder tab label: R(In	C 4 TEKS 5.10B nerited or Learned?	Folder Tab in organizat	Labels are provided to aid ion of folders.			
Cover:						
0	Reporting Cateor ganisms and Envir	gory 4 ronments				
	TEKS 5.10	В				
Inherited						
	⁵ Or	sleeping	n a bed			
Learned?						
	Ctttbregion4°Language Objectives and Content Objectives describe the focus of the					
Content Objecti I will differentiate	ve between inherited traits and lea	TEKS-based activity in student-friendly language.				
Language Objective I will write using newly acquired vocabulary about inherited traits and learned behaviors.						
Key Question What is the diffe	rence between inherited traits ar	nd learned behavio	Drs?			
Questions help stud need to know after o	lents focus on what					



	Inherited Traits	Learned Behaviors	
		Fach ac	tivity includes a student
		takeawa	v that provides students
		with a st	udy resource.
		attached earlobes	brush teeth
		baby crying	draw a picture
		birds migrating	drive a car
		brown hair	earn good grades
		curly hair	fly a plane
		dimples	get a job
		eye color	hunt prey
		freckles	play basketball
		fur color	read a book
		height	sleep in a bed
		hibernating in winter	speak Spanish
		long eyelashes	solve a mystery
		roll tongue	table manners
e review activities include card sorts or have other			tie shoes
eated using cardstock or an envelope) or in a resealable stic bag.		type on a keyboard	
		understand a language	
		spines on a cactus	write ABCs
		1	

Activity 2:

Reporting Category 1 Matter and Energy

TEKS 5.5A

Conductors and Insulators

TEKS

5.5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:

A. classify matter based on physical properties, including mass and magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating), solubility in water, and the ability to **conduct or insulate thermal energy or electric energy**

English Language Proficiency Standards (ELPS)

5.B Cross-curricular second language acquisition/writing. The student is expected to write using newly acquired basic vocabulary and content-based grade-level vocabulary.

Materials

For each student

• Conductors and Insulators

STAAR[®] Released Test Questions

2013: Questions 2, 26 2014: Question 23 2015: Question 29 2016: Questions 1, 29

Teacher Notes

- Directions for each task are provided for students to read as they complete the review. All task answers will be recorded on the **Conductors and Insulators** handout.
- For Task 1, students review the list of materials and decide which one does not belong. Students record the corresponding letter to their answer choice in the numbered box on their handout. Students answer the question by unscrambling the letters.
- For Task 2, students use the word bank to complete the scenario. Students then explain the difference between conductors and insulators by using the sentence stem provided.
- Upon completion of Tasks 1 and 2, students answer the assessment question provided in Task 3.

Answer Key

Task 1

- 1. O—Rubber band
- 2. D—Plastic ruler
- 3. U—Iron pot
- 4. R—Metal scissors
- 5. C—Silver necklace

- 6. T—Cotton tie
- 7. O—Steel key
- 8. N—Metal glasses
- 9. C—Wooden clothespin

A material that allows electricity to flow through it is called a <u>conductor</u>.

Task 2

An <u>enthusiastic</u> science teacher assigns students a task to <u>complete</u>. They are instructed to <u>investigate</u> which material would keep an aluminum can coldest. Students will <u>test</u> four different materials by wrapping each one around an aluminum can. Students will test the following materials: paper towel, foil, newspaper, and plastic. The different materials are the <u>variable</u> in this investigation. Students will keep an aluminum can unwrapped to <u>compare</u> results. This can will be the <u>control</u> of the experiment. Students will record the temperature of the water in each can using a <u>thermometer</u> every 10 minutes for an hour. If the material retains thermal energy, it is an <u>insulator</u> because the liquid in the can will stay cold. If the material allows the liquid in the aluminum can to become warm, then it is a <u>conductor</u> of thermal energy because energy has passed into the can.

The difference between a conductor and an insulator is that a conductor allows energy to flow through it easily and an insulator does not.

Task 3

The correct answer is C because the investigation is testing which material allows less thermal energy to flow through it.

Sample Layout



Folder tab label:

RC 1 TEKS 5.5A Conductors and Insulators

Cover:



Content Objective

I can classify matter based on whether it is a conductor or insulator of thermal or electric energy.

Language Objective I can describe in writing the difference between conductors and insulators.

Key Questions

- 1. How are conductors and insulators different?
- 2. What are some examples of conductors and insulators?

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A student is investigating which material keeps a soda can coldest. The student leaves one soda can unwrapped and wraps four other cans in different materials. The four wrapped soda cans are open, filled with 350 mL of water, and all begin at a temperature of 6°C. The student observes and records the temperature of each soda can after 20 minutes. The results are shown below.

Material Wrapping Soda Can	Water Temperature
Aluminum foil	18° C
Foam	10° C
Newspaper	12° C
No wrapping	22° C
Paper towel	15° C

Which physical property is the student investigating?

A. Density

- B. Solubility
- C. Insulation
- D. Conduction

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