

# Mathematics STAAR® Workstations Volume 4 Grade 8



Region 4 Education Service Center supports student achievement by providing educational products and services that focus on excellence in service for children.

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**Mathematics STAAR®  
Workstations Volume 4,  
Grade 8**

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407-2118D

## Acknowledgments

Region 4 Education Service Center would like to acknowledge the talent and expertise of those who contributed to the development of this resource. Their dedication to our core values of excellence in service for children made possible the creation of this resource to assist educators in providing quality, effective instruction for all students.

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## What is *Mathematics STAAR® Workstations Volume 4*?

*Mathematics STAAR® Workstations Volume 4* is a student-centered review resource to be used to address the Mathematics TEKS that, based on current data, have proven challenging for students. Each workstation is TEKS-based and may be used to enrich Tier I instruction or as a review of the rigor outlined by the TEKS.

Each review workstation is designed to take 15-20 minutes and fit in a single file folder to create a convenient and engaging review resource. These workstations may be used in a variety of structures, including differentiated review during class, review sessions, and tutorials.

### Using *Mathematics STAAR® Workstations Folders*

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

- Individualized Review: Students complete workstations that target their area(s) of greatest need based on formative assessment data.
- Review Stations: Student groups work through each folder and note any topics they find confusing or for which they need further review. The teacher monitors student discussions to assess for misconceptions. These points for review can be addressed individually or as a class to make the best use of class time.
- Whole Class Review: During one class period, the class works in small groups through the same review workstation folder(s) and debriefs together.

Students may benefit from the use of cooperative grouping strategies, such as CHAMPS, while completing the workstations. Think-Pair-Share can be used to ensure that all students are provided opportunities to share their mathematical thinking. Displaying a timer will assist students in monitoring their time while completing each workstation. The recording sheet, blank paper, or sticky notes can be used to hold students accountable for their learning during all tasks of the workstation.

### Creating *Mathematics STAAR® Workstations Folders*

To create the review workstations in this resource, you will need the following materials:

- Access to a copy machine and/or printer
- File folders, preferably a different color for each Reporting Category
- Cardstock
- Hook-and-loop dots
- Packing tape
- Glue sticks
- Resealable plastic sandwich bags
- Transparencies
- Dry-erase markers
- STAAR® Grade 8 Mathematics Reference Materials

Follow these steps to create each *Mathematics STAAR® Workstations* folder:

1. Read through the Teacher Notes and gather the materials for the workstation.
2. Print the Labels, Instructions, Task Cards, and Student Answer Keys. You may access the digital files and choose to print in color or black and white. Access digital files at <http://r4hub.esc4.net> using your login information.
3. Cut out the Labels, Instructions, Task Cards, and Student Answer Keys, and attach each to the folder. You may choose to follow the sample layout provided in the Teacher Notes 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 consumables for students to use as a study guide.

## What is *Mathematics STAAR® Workstations Volume 4*?

### **STAAR® Redesign Technology Enhanced Item**

Each workstation includes at least one STAAR®-type assessment item. When appropriate, the item is written to mirror STAAR® Redesign Technology Enhanced Item (TEI) types.

### **Answer Keys**

Answer keys are included with each workstation. The answer keys may be used in one of the following ways:

- Place the answer key on the back cover of the folder under a flap for students to self-check as they complete the workstation.
- Place the answer key inside the folder in a pocket or under a flap for students to self-check as they complete the workstation.
- Plan for students to visit a solution station with a labeled answer key for each workstation.

### **Debriefing and Providing Feedback**

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

- Use Content Objective, Language Objective, and practice assessment items to debrief the workstation. Students who are unable to accurately answer these questions following the completion of the workstation's activity may need additional support.
- Students complete each workstation and use the answer key or visit the solution station to check their answers. Students should note any questions about a concept or skill so that their questions can be addressed by their teacher.
- Other tools, such as sticky notes, may be used to collect student responses to a specific part of the task, responses from student discourse, or assessment responses, for ease of sorting and making future instructional decisions.

### **References**

Kelemanik, Grace, Amy Lucenta, and Susan Janssen Creighton. 2016. *Routines for Reasoning: Fostering the Mathematical Practices in All Students*. Portsmouth, NH: Heinemann.

Zwiers, Jeff, Jack Dieckmann, Sara Rutherford-Quach, Vinci Daro, Renae Skarin, R., Steven Weiss and James Malamut. 201. *Principles for the Design of Mathematics Curricula: Promoting Language and Content Development*. Retrieved from Stanford University, UL/SCALE website: <http://ell.stanford.edu/content/mathematics-resources-additional-resources>.

## Mathematics STAAR® Workstations Volume 4 Features

**Volume of Cylinders, Cones, and Spheres**

TEKS 8(7)(A)  
Reporting Category 3  
Geometry and Measurement

**Materials**  
**For the folder**

- Workstation document
- Green folder
- Green cardstock for answer key cover
- Additional green cardstock
- Hook-and-loop dot
- Packing tape
- Plastic sandwich bag
- Transparency
- Dry-erase markers
- STAAR® Grade 8 Mathematics Reference Materials

**Materials** listed aid in activity preparation.

Each activity addresses a specific student expectation that is reflected in the content objective(s).

A different color folder is used for each reporting category to aid in organization. Manila folders may also be used.

1. Print the workstation document.
2. Cut out, arrange, and glue the *Cover* to the front of the folder.
3. Cut out and glue the *Folder Tab Label* to the tab of the folder.

The titles of **Activity Masters** and **Student Pages** are printed in italics for ease of reference.

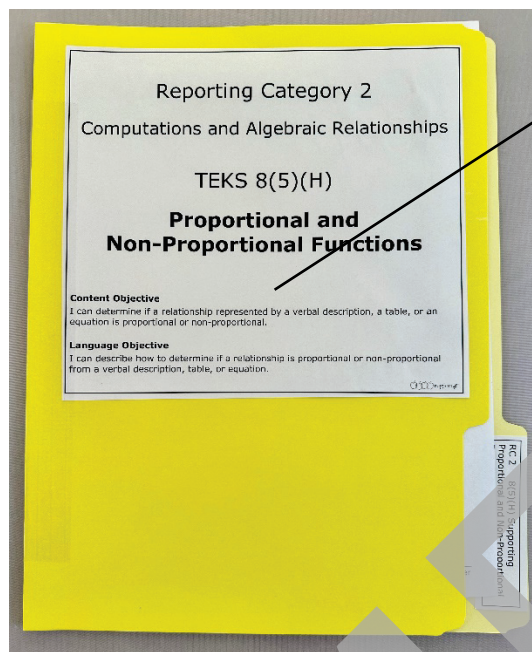
### Reporting Category Folder Color Recommendations

- Reporting Category 1: Red Folders
- Reporting Category 2: Yellow Folders
- Reporting Category 3: Green Folders
- Reporting Category 4: Blue Folders



# Mathematics STAAR® Workstations Volume 4 Features

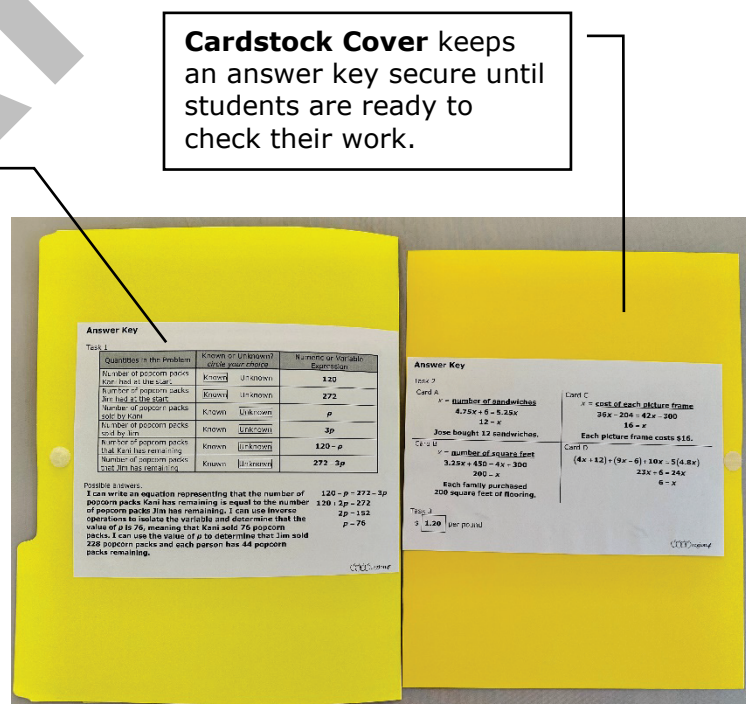
## Front Cover



**Content Objective** and **Language Objective** describe the focus of the TEKS-based activity in student-friendly language.

**Folder Tab Labels** are provided to aid in organization of folders.

## Back Cover



The **Answer Key** allows students to self-check their answers to each task.

**Cardstock Cover** keeps an answer key secure until students are ready to check their work.

## Mathematics STAAR® Workstations Volume 4 Features

### Inside Folder

Each workstation includes step-by-step instructions to aid students in completing each task.

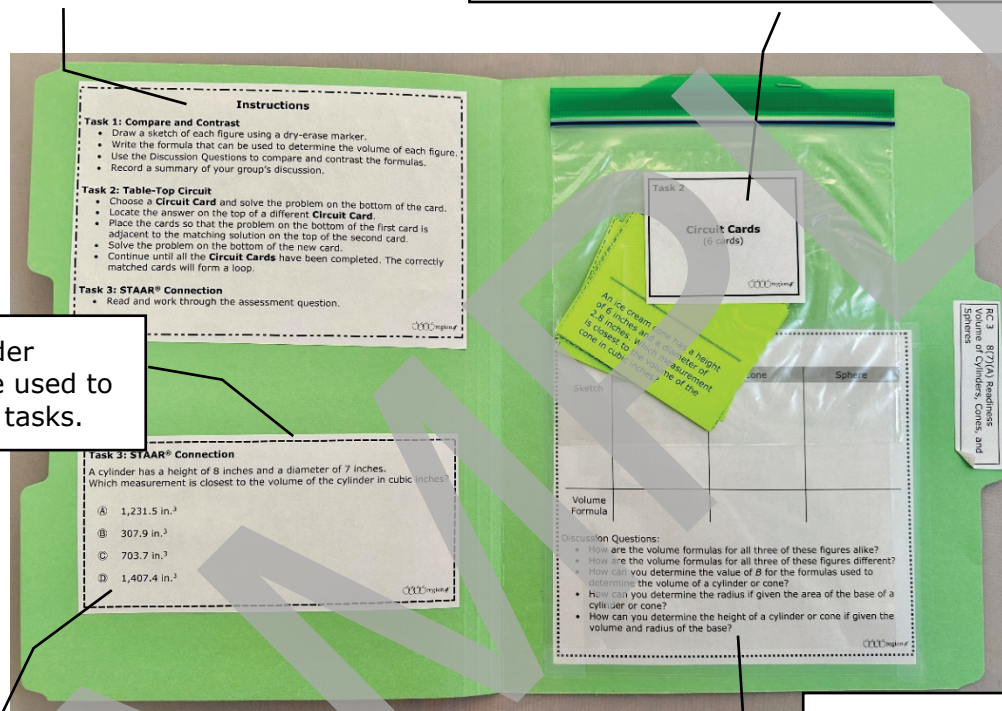
Some workstations include card sorts or have other manipulatives. Cards are stored in the folder either in a pocket (created using cardstock or an envelope) or in a resealable plastic bag.

Varied border designs are used to distinguish tasks.

A STAAR® formatted assessment item is included in each station.

Each workstation includes a literacy component to promote understanding and academic vocabulary.

Each workstation includes a reproducible master that provides students with a study guide.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Volume of Cylinders, Cones, and Spheres Recording Sheet**

**Task 1: Compare and Contrast**

**Task 2: Table-Top Circuit**

Card _____	Card _____	Card _____
Card _____	Card _____	Card _____

**Task 3: STAAR® Connection**

The answer is \_\_\_\_\_ because . . .

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