



## **Grade 8 eLearning Guide – Week 2**

### **Math: Review of Geometry and Measurement**

- Students will use the Pythagorean Theorem formula to solve for a missing side of a right triangle.
- Students will find the Volume of cylinders, cones, and spheres.
- Students will find the Surface Area of prisms and cylinders.

**Math 8 and 8 preAP have this unit in common.**

**Link for Students taking high school math courses: [High School Math](#)**

### **Science: Components of the Universe**

- Students will describe the components of the universe.
- **Guiding Questions:** What characteristics of stars, nebulae, and galaxies give us information about the Universe?
  - Where is our Sun located within the Milky Way galaxy?
  - How close is Earth to the Sun compared to other stars?
  - What have scientists learned about stars using the Hertzsprung-Russell diagram?

### **Language Arts: Improving Society**

- Students read texts from different genres that share a common theme.
- Students analyze a variety of texts for main idea, theme, and author's craft.
- Students compare and contrast two texts on a similar theme.
- Students reflect on their learning.

### **Social Studies: Reconstruction and the Civil War Amendments**

- Students will analyze and compare Reconstruction plans proposed by Abraham Lincoln and moderate Republicans, the Radical Republicans, and Andrew Jackson.
- Students will describe and evaluate the impact of the Fourteenth and Fifteenth amendments to the Constitution.

# Grade 8 eLearning Guide

## MATH

### Objectives

- Students will use the Pythagorean Theorem formula to solve for a missing side of a right triangle.
- Students will find the Volume of cylinders, cones, and spheres.
- Students will find the Surface Area of Prisms and Cylinders.

**Note: Tasks are not intended to be graded. This work is to support understanding of the subject area.**

### For Parents

- Your child will be reviewing Geometry and Measurement Topics - The STAAR Reference Material is provided at the top of each section.
- Have your child complete the tasks below.
- Have your child watch videos if they need assistance.

### For Students

**Pythagorean Theorem - [Reference Material](#)** - Formula Chart

- **Task 1:** Pythagorean Theorem converse (**[Answer Key](#)**)
- **Task 2:** Pythagorean Theorem (**[Answer Key](#)**)

**Volume - [Reference Material](#)** - Formula Chart

- **Task 3:** Volume of Cylinder, Cone, and Sphere (**[Answer Key](#)**)

**Surface Area - [Reference Material](#)** - Formula Chart

- **Task 4:** Surface Area of Cylinders and Prisms (**[Answer Key](#)**)
- **Task 5:** Surface Area - Prisms and Cylinders (**[Answer Key](#)**)

### Additional Resources

**REVIEW - You may watch videos if you need a refresher.**

- **Video:** Pythagorean Theorem Video
- **Video** - Volume of Cylinders, Cones, and Spheres
- **Video** - Surface Area of Cylinders
- **Video** - Surface Area of Prism

# Grade 8 eLearning Guide

## SCIENCE

### Objectives

- The student is expected to recognize that the Sun is a medium-sized star located in a spiral arm of the Milky Way galaxy and that the Sun is many thousands of times closer to Earth than any other star.
- Students will continue to investigate the Life Cycle of A Star and relate the stages to the graphing of stars in the Hertzsprung-Russell Diagram

**Note: Tasks are not intended to be graded. This work is to support understanding of the subject area.**

### For Parents

- Follow the activities below. Answer keys are provided.
- Topics to discuss with your student - How big is the Sun? Where is it located in our galaxy? Why does the Sun appear larger than the other stars in the Universe?
- Ask your students to tell you about the life cycle of a star
- Help students revise work as needed
- Complete this process for all lesson activities

### For Students

- Students view images of spiral galaxies to understand the characteristics of the type of galaxy and understand where [The Earth's Sun](#) is located. ENGAGE
- Students complete [Where In The Galaxy Is The Sun](#) to learn about the location of the Sun in the Milky Way. [Let's Put Size Into Perspective](#) - take a look at the sizes of the Sun and other components of the Universe. EXPLORE
- Students EXPLORE the stages of the [Star Life Cycle](#) and place the stages in order for an Average Star and a Massive Star on the [Life Cycle of A Star board](#). EXPLORE
- Students complete [Graphing The Stars](#) to understand how the brightness, temperature, and star colors are related to the Life Cycle of the Stars. EXPLORE
- Students read [Characteristics of Stars](#) and EXPLAIN their learning about chemical composition, size, temperature, color, and brightness of stars.
- Students read [Characteristics of the Sun](#) and EXPLAIN their learning about the Sun's size, location, and distance from Earth.
- Students check their learning about [The Sun](#) ELABORATE [Answer Key](#)

### Resources

- [Key to Life Cycle Of A Star Board](#)
- [Characteristics of the Sun](#) - National Geographic video featuring characteristics of the sun
- Brain Pop
  - Username: springbranchisd\_12
  - Password: sbisdbp

# Grade 8 eLearning Guide

## LANGUAGE ARTS

### Objectives

- Students read texts from different genres that share a common theme.
- Students analyze a variety of texts for main idea, theme, and author's craft.
- Students compare and contrast two texts on a similar theme.
- Students reflect on their learning.

### Essential Question

- What can we do to improve society?

**Note: Tasks are not intended to be graded. This work is to support understanding of the subject area.**

### For Parents

- If you have access to a printer, print the texts below. If you do not have printer access, students can access the texts online.
- Have your student read each text and answer the questions. *If your student needs assistance with reading, see the note about CommonLit in the "Resources" section below.*
- For the more difficult questions and the comparative task, encourage your student to discuss and brainstorm their ideas.
- If students complete writing tasks, encourage them to read what they've written aloud and revise their work for clarity.
- Complete this process for all lessons.

### For Students

- [Task 1](#): "Emma Watson's United Nations Speech"
- [Task 2](#): "An Obstacle"
- [Task 3](#): Compare Texts
- [Task 4](#): Reflect on Learning
- Extension Activities:
  - Research someone who has made a positive change in society. Compare and contrast this person with one of the texts you read this week. Did these people use similar strategies to improve society, or did they work differently?
  - Read a book for 30 minutes.
    - [Log](#) to keep track of reading.

### Resources

- [CommonLit](#) is offering free [parent accounts](#). Many of the reading assignments above come from CommonLit. If your student needs assistance with the readings, create an account, search for the article by title, and click the "Read Aloud" button.
- [Sora](#) is a free app with books and reading resources for students. Log in with SBISD credentials.
- [Noredink](#) is a free online writing platform. Students should start with the modules for "Body Paragraphs: Claims, Evidence, and Reasoning."

# Grade 8 eLearning Guide

## Social Studies

### Objectives

- Students will analyze and compare Reconstruction plans proposed by Abraham Lincoln and moderate Republicans, the Radical Republicans, and Andrew Jackson.
- Students will describe and evaluate the impact of the Fourteenth and Fifteenth amendments to the Constitution.

### Essential Question

- What were the most important points of view about the goals and tactics of the Radical Republicans?

**Note: Tasks are not intended to be graded. This work is to support understanding of the subject area.**

### For Parents

- Print the tasks below, or have your student copy the questions by hand.
- Have your student read the texts and take notes.
  - The texts may need to be read more than once for full understanding.
  - The videos provided also should help with understanding.
  - You may also allow your student to use a dictionary or online resource (such as <https://www.britannica.com>) to look up words or concepts they may not know.
- After reading, have your student answer the multiple choice questions as a check for understanding.
- For the open ended question, discuss ideas and brainstorm with your student prior to responding.
- Students will circle back to previously read texts to complete Task 5.

### For Students

- [Task 1](#): Radical Republicans Document Investigation Step 1
- For Tasks 2-4, choose 1 text each day to read and analyze.
  - [Task 2](#): Radical Republicans Document Investigation Step 2
  - [Task 3](#): Radical Republicans Document Investigation Step 3
  - [Task 4](#): Radical Republicans Document Investigation Step 4
- [Task 5](#): Putting It All Together

### Resources

- [Radical Republicans](#): Video, 1:11 min
- [Presidential Reconstruction](#): Video, 19 min
- [Radical Republicans](#): Infopage
- [Andrew Johnson](#): Infopage with Video