

# Grade 8 - Math

## For Parents

- Work with your child to complete 3 of the tasks listed in the chart.

## For Students

- Choose 3 of the tasks below to complete for this week.

<p>1.     <b><u>PROPORTIONAL</u></b></p> <p>Write a situation for a proportional relationship (<math>y = kx</math>). Create a table, graph, and equation that represents the situation.</p>	<p>2.     <b><u>PYTHAGOREAN THEOREM</u></b></p> <p>Write a problem situation that uses the Pythagorean Theorem and solve it.</p>	<p>3.     <b><u>NON-PROPORTIONAL</u></b></p> <p>Write a situation for a non-proportional relationship (<math>y = mx + b</math>). Create a table, graph, and equation that represents the situation.</p>
<p>4.     <b><u>VOLUME</u></b></p> <ul style="list-style-type: none"> <li>• Roll two sheets of paper into cylinders. One can be tall and skinny and the other short and stout. Tape each cylinder together by itself by lining up the seams so they do not overlap.</li> <li>• Find the volume of both cylinders.</li> <li>• Write an explanation comparing/contrasting both cylinders and volumes.</li> </ul> <p><b><u>REFERENCE MATERIALS</u></b></p>	<p>5.     <b><u>LINEAR TABLES</u></b></p> <p>Copy/write 5 linear tables down one column of loose leaf.</p> <p>In the column next to it, write the equation for the table.</p> <p>Then, write a statement under each equation telling how to find the slope and y-intercept from the table.</p>	<p>6.     <b><u>EQUATIONS</u></b></p> <p>Create your own equation similar to the one below. (variable on both sides).</p> <p style="text-align: center;"><math>16x - 5 = 4x + 3</math></p> <p>Use a pictorial model and clearly written detailed directions to explain how to solve the problem you have created.</p>
<p>7.     <b><u>SCATTERPLOTS</u></b></p> <p>Draw an example of negative, positive, and no correlation graph. Describe their shapes. Then, write three scenarios that would fit into each category.</p> <p><b>Example.</b> The number of pets and the number of books you read. NO correlation because the number of pets and books read have no effect on each other.</p>	<p>8.     <b><u>FUNCTIONS</u></b></p> <p>Create 4 examples (one of each) of a function using ordered pairs, tables, graphs, and mappings. Explain why each represents a function.</p> <p>Create 4 examples (one of each) that are not a function using ordered pairs, tables, graphs, and mappings. Explain what makes each example not a function.</p>	<p>9.     <b><u>VOLUME</u></b></p> <ul style="list-style-type: none"> <li>• In your own words explain what the definition is for the <b>B</b> in the formula for volume, <b><math>V = Bh</math></b>.</li> <li>• What formula must you substitute in for the B, when finding the volume of a cylinder, cone, or sphere?</li> <li>• Write a paragraph explaining your answer to the question above. Include pictures and labels in your explanation.</li> </ul>

# 8th Grade Science Choice Board

**Directions:** Complete all assignments from your science teacher. Then select 2 OPTIONS from the choice board below. Click on the OPTION to see the instructions for that option. At the end of each day, fill in the progress log on [Slide 2](#).

<p style="text-align: center;"><b><u>OPTION ONE</u></b></p> <p><b><u>MAKE AN ATOMIC MODEL</u></b> <u>of an element from the periodic table, that includes the subatomic particles located in the Nucleus and Electron Cloud.</u></p>	<p style="text-align: center;"><b><u>OPTION TWO</u></b></p> <p><b><u>PERIODIC TABLE PATTERNS</u></b> <u>are what the periodic table is all about. Write a paragraph about the relationship between where an element is located on the periodic table and the atomic structure of that element</u></p>	<p style="text-align: center;"><b><u>OPTION THREE</u></b></p> <p><b><u>SPEED, VELOCITY, AND ACCELERATION</u></b> <u>how are they related to each other. Write a children's story that explains how movement can be described by using these terms.</u></p>
<p style="text-align: center;"><b><u>OPTION FOUR</u></b></p> <p><b><u>PICTURE IT!</u></b> <u>NEWTON'S LAWS</u> <u>find a picture that represents each of Newton's three laws of motion. Write a description that tells how Newton's Law is being represented in that picture.</u></p>	<p style="text-align: center;"><b><u>OPTION FIVE</u></b></p> <p><b><u>MY BIRTHDAY MOON!</u></b> <u>Find out which moon phase was in the night sky on the day that you were born.</u></p>	<p style="text-align: center;"><b><u>OPTION SIX</u></b></p> <p><b><u>MY FAVORITE CRUSTAL FEATURE!</u></b> <u>Write a letter to a classmate about your favorite crustal feature.</u></p>
<p style="text-align: center;"><b><u>OPTION SEVEN</u></b></p> <p><b><u>#CLASSIFY IT!</u></b> <u>Classifying living organisms can be tricky. Develop hashtags that simplify this task.</u></p>	<p style="text-align: center;"><b><u>OPTION EIGHT</u></b></p> <p><b><u>ENVIRONMENTAL CHANGE CHALLENGE</u></b> <u>Take the challenge and describe affects on populations that result from a short or long term environmental change.</u></p>	<p style="text-align: center;"><b><u>OPTION NINE</u></b></p> <p><b><u>WORKING FOR A LIVING!</u></b> <u>Compose a 50 word tweet about eukaryotic cells and the jobs that are carried out by their organelles.</u></p>



# Option 1:

## Instructions:

- Watch [“Atoms” on Brainpop](#) and complete each section of the Learning Log.

Brainpop Learning Log		
<b>Atoms</b>	Challenge Quiz Score:	What is something you learned?
		

- Watch [“How To Draw An Atom”](#) and click on one of the Elements (Atomic Number 3 - 20) from the [periodic table](#). Draw an atom “BOHR” model of the element you have selected.
- Make a model of your atom using objects from home to represent the Protons, Neutrons, and Electrons.
- Take a picture of the model you drew and your constructed model and upload it to this slide in the space below.  
(Insert > Image > Camera)

# Option 2:

## Instructions:

- Watch [“Periodic Table of Elements” on BrainPOP](#) and complete each section of the Learning Log.

Brainpop Learning Log			
Periodic Table of Elements	Watch Video? (yes/no)	Challenge Quiz Score:	What is something you learned?
 Periodic Table of Elements			

- Read [“Periodic Table Tutorial”](#) and see if you can answer the questions.
- Get some clues from the [PTE Review it](#).
- Write a paragraph in the box below about the relationship between where an element is located on the periodic table and that elements' atomic structure .

*Click in this text box to answer.*

# Option 3:

## Instructions:

- Watch "[Speed and Velocity](#)" and get some ideas about how you could write a children's story. Check out the [Physics4Kids link](#) to find out more about Speed, Velocity, and Acceleration.
- Use the table below to brainstorm and plan your story. The story needs to include each of the words and what they mean. You can also include pictures that would add to the story, and make it interesting for a child.

Important facts from the video:	
What would happen in your story?	
What vocabulary words would you include?	

- After you are done brainstorming use the [next slide](#) to illustrate and write your final story.

Your Story's Title

# Option 4:

## Instructions:

- Check out the [Physics 4 Kids Link](#) to refresh your memory about each of Newton's Three Laws of Motion.
- Watch "[Newton's Laws of Motion](#)" on BrainPOP and complete the learning log.

Brainpop Learning Log			
Newton's Laws of Motion	Watch Video? (yes/no)	Challenge Quiz Score:	What is something you learned?
			

- Find a picture that represents each one of Newton's Three Laws. For each picture, add a description about how the law is being represented. Begin your work in the box below.

*Click in this text box to answer*

- Use the [next page](#) to add pictures and Newton Law descriptions.

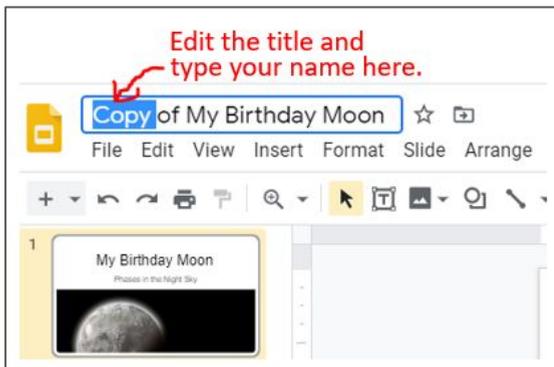
# Newton's Three Laws Of Motion

# Option 5:

Instructions:

- Review the learning about the lunar cycle by studying the [Moon Movement, Moon Phase Review](#).
- You will use the The McDonald Observatory's [Star Date website](#) to complete the [My Birthday Moon](#) slideshow. When you click “My Birthday Moon” it will prompt you to “make a copy” of the slide deck. Click, “Make a copy.” When the file opens edit the title and follow the instructions to share the link with your teacher.

1. Edit the title. Add your name.



2. Share the Slides with your Teacher.  
Click, “Share” > “Get Shareable Link” > Copy the link.



3. Paste the link to your slides in the box below here:

View Only Resource for Printing: [My Birthday Moon](#)

# Option 6:

## Instructions:

- Refresh your memory about tectonic plate movement and the crustal features that are formed by studying [Plate Tectonics Review](#) .
- Write a letter to your friend telling them about your “Favorite Crustal Feature”. Things you need to include in your letter:
  - How the crustal feature is made
  - Type of plate boundary and movement of the plates
  - Name of the crustal feature
  - A real-world example of this feature
  - Why this feature is your favorite
  - Remember to put a greeting like Dear John, and salutation such as, Yours Truly
  - If possible, find a picture of your crustal feature and add it to the letter.
- Write the letter on the [next slide](#). Make sure to include each of the items listed.

# Favorite Crustal Feature Letter

# Option 7:

## Instructions:

- Refresh your memory about [Classification Techniques](#) used to identify and classify living organisms.
- Use [Hashtag Classification](#) on the next slide and the Classification Techniques review above to complete this option.

# Classification Techniques

- Create a one-to-three-word hashtag to explain each term. The first one has been done for you.

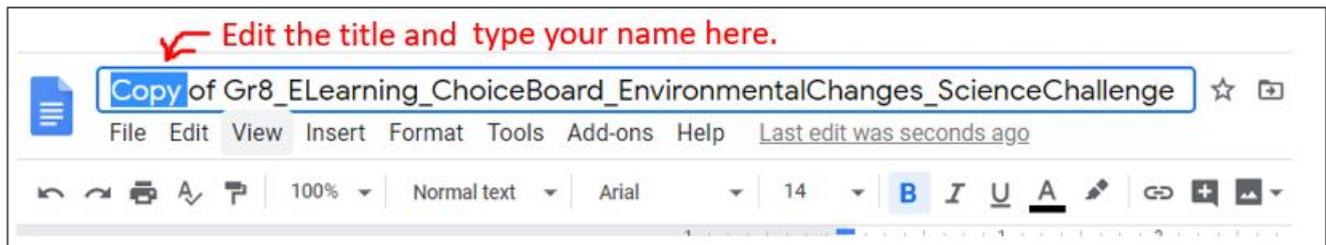
Vocabulary Term	Hashtag Note
<i>Prokaryotic</i>	<i>#NoNucleus</i>
Eukaryotic	
Unicellular	
Multicellular	
Autotrophic	
Heterotrophic	
Asexual reproduction	
Sexual reproduction	
Kingdom	
Kingdom Archaea	
Kingdom Protista	
Kingdom Fungi	
Kingdom Plantae	
Kingdom Animalia	
Dichotomous key	

# Option 8:

## Instructions:

- Short and Long term environmental change in an ecosystem can prove to be a challenge for organisms living in that ecosystem. Review [Environmental Changes](#) to refresh your memory.
- Complete the [Environmental Change Challenge](#) using the information you reviewed above. When you click the link it will prompt you to “make a copy” of the Google Doc. Click, “Make a copy” for your file to open. When the file opens you will need to edit the title and share the link to your document with your teacher.

1. Edit the title. Add your name.



2. Share the Slides with your Teacher via email.

Click, “Share” > “Get Shareable Link” > Copy the link.



3. Paste the link to your slides in the box below here:

View Only Resource for Printing: [Environmental Change Challenge](#)

# Option 9:

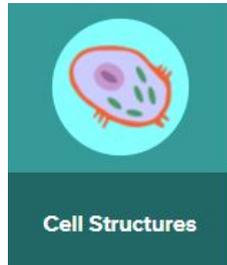
## Instructions:

- Watch the BrainPOP videos linked below to collect information about cells and the functions of cell organelles.

[“Cell Specialization”](#)

[“Cell Structure”](#)

[“Cells”](#)



- Use the information about cell organelles to compose your tweet on the [next page](#).

# “Working For A Living” Tweet

- In 50 words or less, tweet about the “work” that the organelles in a eukaryotic cell do to keep organisms living.

# Grade 8 - ELA

## For Parents

- Check that your child has completed all previous work.
- Help your child choose and complete tasks from the chart below.

## For Students

- Each week, choose 3 of the following tasks to complete.

<p>1. Read a chapter of a book or a news article.</p> 	<p>2. Think about the following statement:</p> <p><b><i>Happiness is the result of being too busy to be miserable.</i></b></p> <p>Write a short essay about the importance of staying busy. Use personal examples to make your point.</p>	<p>3. Download SoraApp to your phone and use your student email to sign up.</p>  <p>Read anything you choose for 20 minutes.</p>
<p>4. Watch the news and talk to someone about a story you watched. What connections to your own life did you make?</p> 	<p>5. Get a library card! Visit <a href="http://houstonlibrary.org">houstonlibrary.org</a> and get a MY Link card or request your current card number for ebooks. Link your card to your SoraApp for more book choices.</p>	<p>6. Read about a sport or hobby that interests you. Write to someone about it and persuade them to try.</p> 
<p>7. Use <a href="http://vocabulary.com">vocabulary.com</a> or a dictionary to look up the following words.</p> <ul style="list-style-type: none"> <li>• adequately</li> <li>• authentically</li> <li>• (in)coherent</li> <li>• invariable</li> <li>• presume</li> </ul>	<p>8. Write a step-by-step guide explaining "how-to" do something (i.e. make a snack, drink/dessert, use an app, etc.)</p> <p>Include illustrations and clear instructions.</p>	<p>9. Write a review about something you saw on TV or YouTube. Why should people watch it? Make sure to summarize without giving away the ending. Then explain why people should watch it.</p> 

## Grade 8 - Social Studies

### For Parents

- Check that your student has completed all previous work.
- Help your student choose and complete tasks from the Mind Mapping activity.
- The final step of the task requires students to respond in writing on a separate paper, Word document, or Google Doc.

### For Students

- Open the [Mind Map](#).
- On a blank sheet of paper, re-create a Mind Map — drawing only the shapes.
- For each of the circles on your Mind Map, select one choice from each to complete, and write your responses around that circle.
- Use what you have completed for each circle to help you respond to the Essential Question. Write your response on a separate sheet of paper, Word document, or Google Doc.