**6th grade Summer Work**

Over the summer you have an assignment that will get you ready for the beginning of your 6th grade year. You must develop a story or documentary that answers the questions:

**How can I support wildlife in the world?**

In this story you create characters that define the following terms in a way that makes sense with the story. If you choose to do a documentary, you must define each term thoroughly with examples of each. DO NOT COPY AND PASTE, because we can tell. Cite All sources. You do not need to use a specific citation style.

* Organism
* Abiotic / Biotic
* Ecosystem
* Population of organisms
* Resources
* Competition
* Predator / Prey

**You can choose how you complete your work**

1. Write the story on paper. Box each vocabulary word. Don’t forget to write your name and mod.
2. Type the story on a word document. Highlight each vocabulary word. Don’t forget to type your name and mod.
3. Put your story on a power point. Highlight each vocabulary word. Don’t forget to include your name and mod.
4. Make an info graph or chart that completes your assignment. It must be colorful. Box each vocabulary word. Don’t forget to write your name and mod.
5. Make a movie that tells you story. You must write a script if you choose this option. Each vocabulary word MUST stand out in some way. You may not show anyone’s face. You could use stick men or draw each character. Maybe you may want to make little felt characters. Whichever you chose you will need to

be creative. The video must be at least 3 mins long.

**7th grade Summer Work**

Over the summer you have an assignment that will get you ready for the beginning of your 7th grade year. You must develop a story or documentary that answers the question:

**How can we use energy to heat materials?**

In this story you create characters that define the following terms in a way that makes sense with the story. If you choose to do a documentary, you must define each term thoroughly with examples of each. DO NOT COPY AND PASTE, because we can tell. Cite All sources. You do not need to use a specific citation style.

* Thermal energy
* Temperature (as a unit of measure)
* Kinetic and potential energy – tell the difference between each
* Heat
* Light
* Sound
* motion

**You can choose how you complete your work**

1. Write the story on paper. Box each vocabulary word. Don’t forget to write your name and mod.
2. Type the story on a word document. Highlight each vocabulary word. Don’t forget to type your name and mod.
3. Put your story on a power point. Highlight each vocabulary word. Don’t forget to include your name and mod.
4. Make an info graph or chart that completes your assignment. It must be colorful. Box each vocabulary word. Don’t forget to write your name and mod.
5. Make a movie that tells you story. You must write a script if you choose this option. Each vocabulary word MUST stand out in some way. You may not show anyone’s face. You could use stick men or draw each character. Maybe you may want to make little felt characters. Which ever you chose you will need to

be creative. The video must be at least 3 mins long.

**8th grade Summer Work**

Over the summer you have an assignment that will get you ready for the beginning of your 8th grade year.

1.You must choose two organisms, one living and one extinct

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 Living Extinct

Examples might be

A chicken and a trex or a pig and a triceratops

2. Next develop a story or documentary that answers the question:

**How can there be so many similarities among organisms yet so many kinds of living things? In other words what do your two organisms above have in common with other organisms you might add to the story**

**Organism = a living thing**

3. In this story you create characters out of your chosen organism that define the following ideas in a way that makes sense with the story.

Explain how similarities in anatomical features can show that some organisms are more closely related than others.

* Explain how similarities in anatomical features (what its body is shaped like) can show that some organisms are more closely related than others. For example, a jellyfish and a megalodon have very different body structures. This makes the way they live very different.
* Explain how the organisms have each changed over time.
	+ Example- megalodons have become much smaller if they are now great whites.
* Explain how the organism’s environments have changed over time.
	+ We no longer have megalodons in Maryland although they once swam here. This is because we have more land and less sea.
	+ The earth was like a rainforest in some cases for the extinct organisms. We went through an ice age and then cooled. We are in that cycle again with global warming.
* Describe the time period in which these organisms lived in the geological time scale.
	+ You first have to define geological time scale. You can search this term along with your organism to see what results you get.

**You can choose how you complete your work**

1. Write the story on paper. Box each vocabulary word. Don’t forget to write your name and mod.
2. Type the story on a word document. Highlight each vocabulary word. Don’t forget to type your name and mod.
3. Put your story on a power point. Highlight each vocabulary word. Don’t forget to include your name and mod.
4. Make an info graph or chart that completes your assignment. It must be colorful. Box each vocabulary word. Don’t forget to write your name and mod.
5. Make a movie that tells you story. You must write a script if you choose this option. Each vocabulary word MUST stand out in some way. You may not show anyone’s face. You could use stick men or draw each character. Maybe you may want to make little felt characters. Whichever you chose you will need to

be creative. The video must be at least 3 mins long.

**ALL STEM CLASSES**

Over the summer you will have an assignment that will help you start the next year.

**Engineering Design Process**

* Create a power point for this project.
* Diagram the engineering design process. – must be created by you- NOT copy and paste versions someone else created.
* Written explanation:
	+ This will be typed in Power point.
	+ Explain each part of the process and individual parts.
	+ Explain fully (at least two paragraphs) the entire process. Make sure that you detail how each part works together.
		- Be sure to include:
		- Define water using the context of this cycle.
		- The purpose of the water cycle - why it is important.
		- How the earth would operate if the water cycle did not exist.
		- Develop a new process for cycling water using some organism or structure in the universe.