

Science Summer Enrichment Activities

Haines Middle School

Here at Haines, we strive for excellence and highest academic achievement. Your teachers have prepared interesting and captivating assignments. The science summer enrichment activities can be carried out with the involvement of the whole family. We all wish you lots of fun and can't wait for you to present your activities in the first week of school. Please follow the directions very closely and have fun.

****This year you have a choice of activities in science. Please choose two out of the three assigned activities****

1. Current Events in Science

Please find an article that is related to current events in science. You will compose a mini research paper on the topic that is related to this article. Below, find questions to answer that will help you conduct your research and write the essay. Include pictures or photographs to help us understand your presentation. Please use spell check and make sure that your presentation is error free. Please include MLA style citations for all your resources you have used.

- I. What is the article about?
- II. What is the problem/issue in this article?
- III. How is it related to our daily life, or to you?
- IV. Is there a solution to the problem mentioned in the article? V. How would you solve the problem? VI. How will this relate to our future?

2. Outdoor Science Scavenger Hunt

This activity can be done as a family, or you can do it with your friends, unless you like to work alone. You will go outside and find things that are in the scavenger hunt form. Use the form to find all the items, please take a picture of the found items with your phone. I will consider pictures of you and the items, type of like selfies. Once you complete the scavenger hunt, create a slide presentation with your pictures explaining each item. Please follow the directions and have fun.

Scavenger Hunt Lab Worksheet

- 1. Water that is in the form of a solid, liquid, or gas**
- 2. A natural resource**
- 3. Matter that is solid and sinks in water**
- 4. Matter that floats in water and is not magnetic**
- 5. A shadow that is 10 to 20 centimeters long**
- 6. A mixture of two or more substances**
- 7. An example of mechanical energy**
- 8. An animal interacting with its environment**
- 9. Plant roots**
- 10. Soil that supports a healthy plant**
- 11. An organism in the adult stage of its life cycle**
- 12. A cracked rock**
- 13. Something that is oxidized**
- 14. Examples of energy transformations in action**
- 15. Newton' 1st, 2nd, and 3rd Laws of motion in action**

3. Create/Invent Something

Your task is to invent something that would help someone in your school, or community. Think about the problem you would solve with your invention. What is it? How is it useful? Who would it help? Draw a picture of your invention as a prototype. Make a model of it. You will present your model to the class. Before you invent something, follow the text, it will help you with generating ideas.

Sometimes a terrific invention is a matter of sheer luck and discovery. For example, Red Delicious apples are one of the most common varieties of apples available. It was discovered by an Iowan farmer named Jesse Hiatt who saw a small seedling growing on his farm. He thought it was a nuisance plant and chopped it down. The tree kept growing back, however, and finally he allowed it to grow to maturity. It produced red apples. Eighteen years went by and he took the apple he called "Hawkeye" to a fruit show where he sold the rights to market the apple that was renamed Red Delicious.

- Go to the [Inventor's Hall of Fame website](#).
- Select "search by decade" and select "1900." Scroll through the inventions from this decade that made it into the Hall of Fame.

Choose the five that you feel are most important and list them.

Then, circle the number(s) of the invention(s) listed that you

have used. Place a star next to the one you would least like to live without.

- Select "search by decade" again and select any decade you wish.

Which invention do you wish most that you would have invented yourself? Describe what life would be like without that invention using the three-frame comic strip below. Compose two drawings to show life with the invention and to show life without the invention.

	Hair color	Freckles	Cheek dimples	Earlobes	Tongue Roll	Double jointed
Me	Brown	Y	Y	Free	Y	Y(thumbs)
Mom	Brown	N	Y	Free	Y	N
Dad	Red	Y	N	Attached	N	Y(elbows)
Sibling A	Brown	Y	Y	Free	Y	Y(elbows)
Sibling B	Brown	Y	Y	Free	Y	Y(thumbs)

To help your child interpret the information on her chart here's a quick review of the way genes work:

Humans have two copies of each gene that makes up our physical structure, one from each parent. For example, if you have the tongue roll gene from both parents, you will be able to roll your tongue. However, if the two genes are different, one of them will be "dominant." That means that only the dominant trait will appear. For instance, if you have the free-hanging earlobe gene from your mom, and the attached earlobe gene from you dad, you will probably have free-hanging earlobes, because your mom's gene is the dominant one. Sound confusing? Take a look at your chart. What traits did you inherit from your parents? And if your parents have different hair color and earlobes, which kind

did you (and your siblings, if you have any) inherit? This is probably the dominant gene.

Wondering why your redheaded sister is the only one in the family? She may have inherited a trait from a long-ago relative that stayed "dormant" (asleep) while being passed on.