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PLEASE CONTACT ME IF YOU HAVE ANY QUESTIONS!

—JORDAN WEST

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Thank you!

I was inspired by so many others in order to make this product. Please be on the lookout for the complete product which will go over many other classroom supplies commonly used.

This Earth Day, I'm sharing with my students the impact of supplies, not to shame them or discourage them from using them, but so they can cherish them and appreciate what was lost in its place.

My hope is that these activities open my students' eyes just a little bit, so they understand the impact of their decisions, and think twice before wasting or tossing out perfectly good supplies.

Enjoy!

Jordan West
@surfingandstem

PENCILS

Chances are, there is a pencil close by you right now. Pencils are used all over the world and this small piece of "technology" assists many people every day with getting their thoughts on paper. Very few people consider the environmental impact of this tiny tool.

Take a look at your pencil closely. Do you notice all the parts? Are there words on the pencil? What about the part holding in the eraser? Is it painted? These are all questions to consider when you think about the manufacturing of your pencil. This is the process an item goes through before getting to the store. These are also questioning you should consider when thinking about the impact your supplies have on the environment.

How Pencils are Made

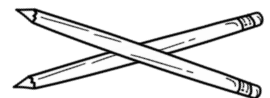
As you may know, pencils are made from wood. Most trees are made from cedar wood, but many pencil companies have shifted to reforested wood because it is better for the environment. The trees are cut into precise slabs, then placed into a machine where they are cut. Once cut, graphite is placed between the wood and pressed into a pencil. The pencil wood must be strong enough to protect the graphite but not so strong that it crushes it. It also should not be able to bend under the pressure of a hand but must be soft enough to be sharpened. The wood around the graphite prevents it from being broken easily. After the shape is made, it is sent through a sprayer to be painted. It typically takes four coats of paint to cover the wood grain entirely. If any logos or names are printed on the pencil, it happens after the pencil is completely yellow. Finally, an eraser cap is placed on with an aluminum ferrule. This process does not include the manufacturing process that occurs when the pencils are packaged, placed on a truck to get to a store, then delivered to a home, classroom, or business to use them.

Environmental Impact

When using a pencil, the material that writes on the paper is called graphite. Graphite must be mined with strong equipment from underground. Although it is not mined as often as other minerals, mining can still cause unwanted weathering and erosion, the development of sinkholes, air pollution, and loss of habitat for animals from deforestation.

In addition to the graphite, pencils are mostly made from wood. Many trees cut down are cedar trees which grow well in California. Many others are part of rainforests and provide valuable shelter to animals, absorb carbon dioxide from our air, and provide us with oxygen we need to breathe.

Some companies, such as Crayola, have made a positive impact by using recycled materials and ensuring for every tree being cut down, they always plant another one. However, most of the large companies manufacturing pencils are for profit and the damage done to the environment is an afterthought.



PENCILS

What about Mechanical Pencils?

Unfortunately, mechanical pencils are much worse to use than wooden pencils. They are made almost entirely from plastic which can take 500 years or more to decompose. While it may be reusable, many people simply run out of lead and throw the pencil in the garbage which sends the trash to a landfill.

How can I make a Difference?

Making a difference might not be as difficult as you think. It's okay to use pencils, especially if you are in school. The easiest way to make a difference is to not waste your pencils, it's as simple as that!

1- Once you have a pencil in your possession, keep it with you. If your parent or teacher allows, write your name on it with a permanent marker. Write with your pencil until it's dull. Constantly sharpening your pencil will deplete the wood faster. When it is ready to be sharpened, only sharpen it for a few seconds, then check to see if it's sharp. When possible, use a handheld sharpener.

2- Research the company of your pencil before purchasing again. Look at their website and see if they have a recycling program. See where they get their wood, and if they use recycled wood or if they are a contributor to deforestation.

3- Recycle your pencil when possible. Many companies allow you to send in boxes of pencils that are almost out for free! Just box up the used pencils, place the shipping label and send it. They can reuse the old pieces to make new pencils. If you are not able to recycle your pencil, use the pencil until you are unable to sharpen it.

Pencil Fun Facts

The reasoning behind yellow pencils is disputed on the internet. Some argue that when pencils were manufactured mostly in China, yellow is the color that represented royalty in their country. Some argue, however, that it is meant to blend in with school buses.

In the early 1900's children in school were given one pencil only. They were expected to keep up with this pencil. Failure to do so may have resulted in expulsion (not allowed to come back to school).

The largest pencil in the world is 20 meters high and can be found in Malaysia.

The average pencil can draw a line that is 70 miles long.

More than two billion pencils are used in the United State every year.

Comprehension Questions
The Impact of Our School Supplies- Pencils

Name: _____

1. What fact is commonly disputed when it comes to pencils?

- a. Why pencils have erasers
- b. Why pencils are yellow
- c. If pencils should be allowed at school

2. What should you consider before buying new pencils?

- a. Does the company recycle?
- b. Does the company contribute to deforestation?
- c. Both A and B

3. What does the word "manufacturing" mean in the second paragraph?

- a. Pencil designs
- b. A process before pencils make it to the store
- c. materials inside the pencil

4. What material is used to write on paper in a pencil?

- a. Graphite
- b. Lead
- c. phosphate

5. According to the text, what happens directly after the wood is cut into precise slabs?

- a. The pencils are painted
- b. An eraser is placed on top
- c. Slabs are placed into a machine where they're cut down

6. How have some companies made a positive impact on the environment?

- a. Developing recycling programs
- b. Contributing to deforestation
- c. Painting pencils yellow

7. According to the text, list the three ways trees help our earth.

8. According to the text, what harmful effects can be caused to the earth by mining for graphite? .

In your own words. List three ways you can help the environment when it comes to using pencils.

9. _____

10. _____

11. _____

My Pencil Research Activity

What utensil are you using to write on this paper? If you're on a computer, find the nearest pencil to you. Look on the sides of the pencil for the name of the company. Some common names are Ticonderoga, Bic, Dixon, and Office Depot.

The Brand Name on my Pencil: _____

Other Details on my Pencil: _____

Find their company website using your teacher approved technology.

My Pencil Company's Website: _____

Is there anything listed on the company's website about recycling? You may have to click multiple tabs on the site to find this information. If so, what does it say?

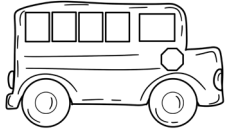
Does the website list how the pencils are made? What type of wood do they use? If its not listed, research on your own and write down the website where you found this information.

What other information can you find that you think may be important to know before purchasing from this pencil company?

On a scale of 1-10, with 1 being "absolutely not" and 10 being "absolutely yes!" Would you recommend this pencil company?

Circle one.

1 2 3 4 5 6 7 8 9 10



Opinion Writing



Read the opposing opinions. Then, develop your own opinion. Give three reasons why you think one is better than the other. Do additional research if necessary.

Mechanical Pencils are Better for All

At my school, we are often rushed when we get to class with many tasks on the board. Having a mechanical pencil ensures I won't be wasting my time at the pencil sharpener. If I need to add more lead, I just get it out of my bag and replace it quietly. Although it uses plastic, I can keep one pencil with me the entire year rather than wasting hundreds of wooden pencils that break, must be sharpened, and get dull quickly. If everyone was responsible and kept up with their mechanical pencil, think of all the plastic we would save by not purchasing pencil sharpeners. Mechanical pencils are better for all.

-Marcus, Age 12

Just Say no to Plastic

While mechanical pencils sound like a great idea, it's NOT! Plastic takes hundreds of years to decompose. While it may seem like a bad idea to use wooden pencils, it is better than the alternative. Many companies are using recycled wood which is friendly for the environment. All that's left when a wooden pencil is used up is a metal part to hold onto the eraser. It can be melted down and reused. However, plastic is not the same. Students in school are not responsible enough to keep up with one mechanical pencil all year. The lead also comes in small plastic container which pollute the environment. It's best to stick with wooden pencils.

-Anna, Age 9

After reading the two opinions, develop your own opinion on whether wooden pencils or mechanical pencils are better for the environment. Write your opinion below.

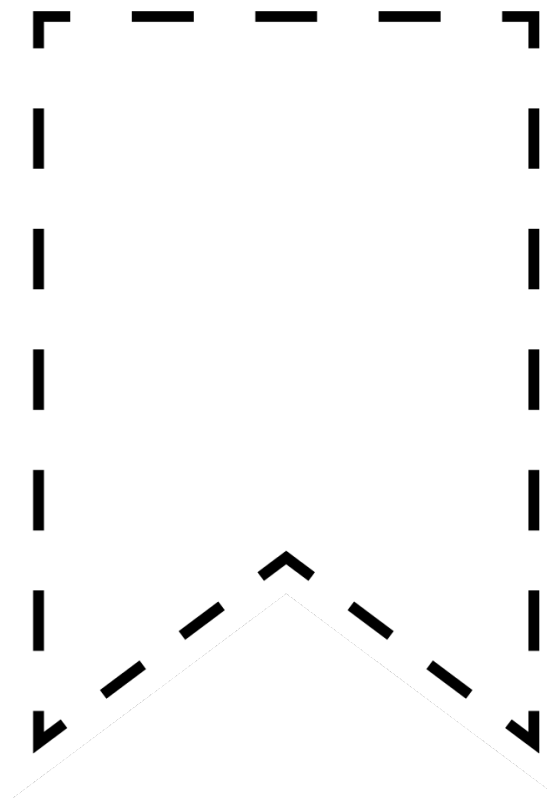
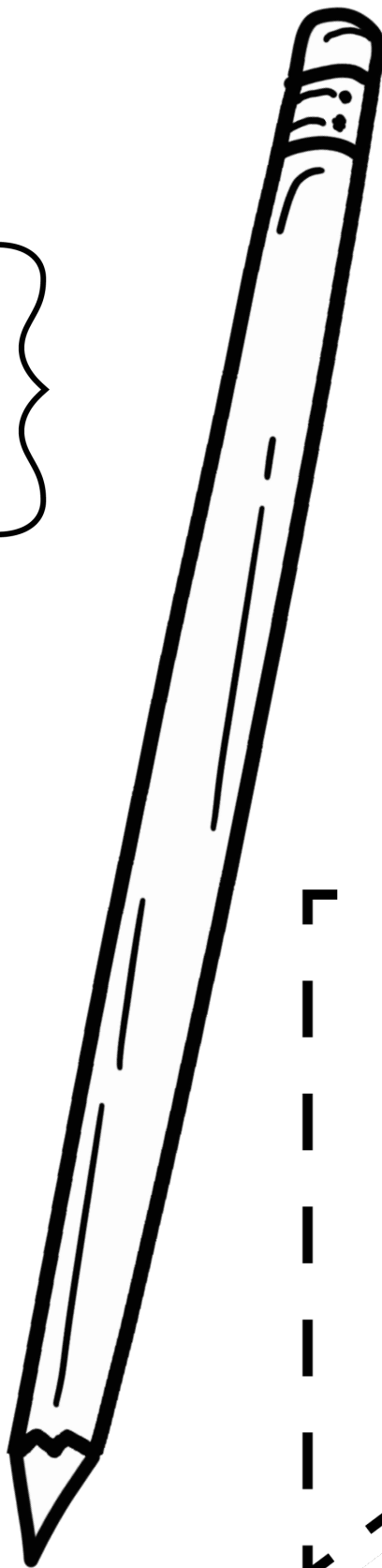
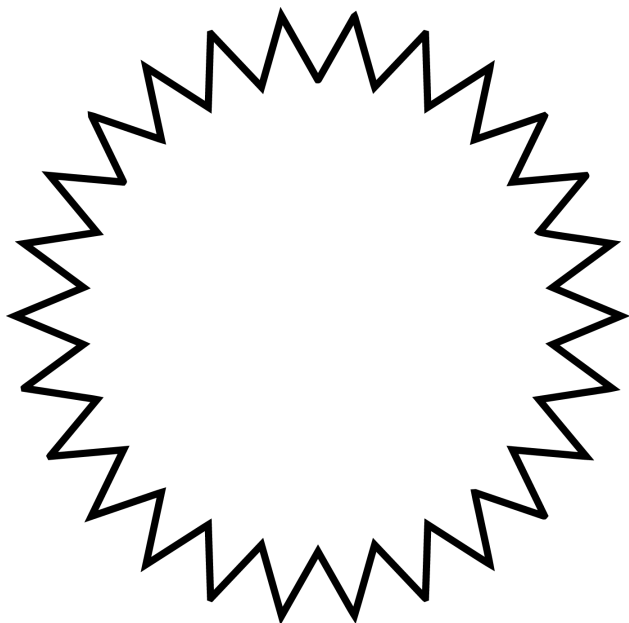
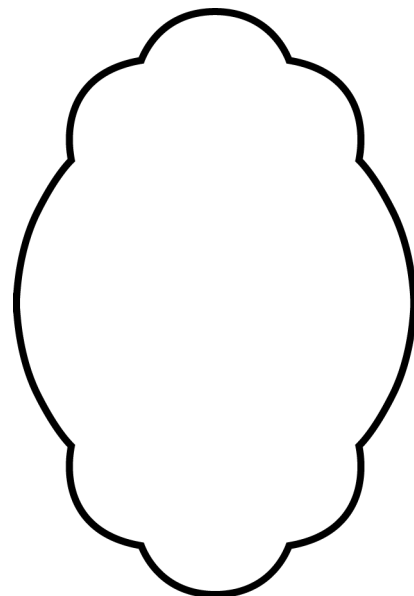
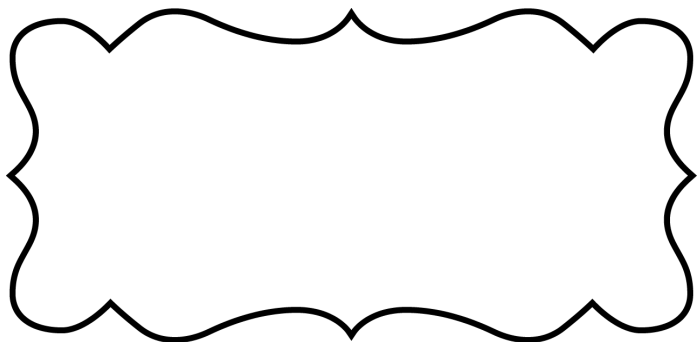
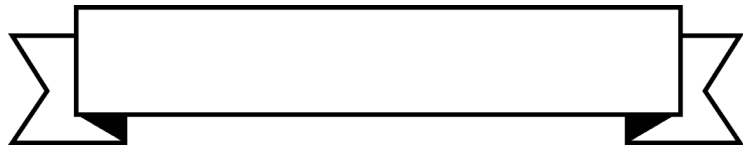
CREATE A CAMPAIGN

A campaign is organized work to achieve a goal. This goal is for you to make people aware of what you learned about using pencils. If you could give this poster to every child who attended school and used pencils, what would you say? Be sure to use color and strong words to make your campaign "stick out" in the crowd. Use the space below to brainstorm your thoughts.

You can add in facts you learned and tips to reduce someone's use of pencils.

**Remember, our goal is NOT to prevent the use of pencils, just cut back on waste."

THINK TWICE



SOURCES

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Norton, Jane. "Green Tips: Back to School." *National Geographic*. National Geographic Kids, 5 May 2011. Web. 21 Apr. 2013. This was very useful. It gave great tips on how to shop more green. We learned a lot from this website.

"It's Easy Being Green: Green Options for the Back-to-School Shopper." *Name*. Center For American Progress, 4 Aug. 2010. Web. 07 Apr. 2013. This was a very useful Website. We learned so many ways to be more environmental when shopping for school supplies. If we just use recycled objects we can make a huge impact on this world. This was a very interesting website.

Rodriguez, Diana. "Getting Environmentally Friendly at School." *EverydayHealth.com*. N.p., 3 Sept. 2009. Web. 07 Apr. 2013. This website was very interesting. If we have extra notebooks and binders at home, there is no need to buy more. If everyone can use supplies they already have, it can make a difference. This was a useful source.

"Use Eco-Friendly School Supplies." *Practically Green*. Practically Green, 4 Aug. 2010. Web. 07 Apr. 2013. This website has good information. There are so many actions we can do to change the environment around us and around the world. We all need to work together in order to make a difference in this world. This was a useful source.

"The Website Globalstewards.org's Keywords in Search Engine." *Globalstewards.org*. N.p., 3 Feb. 2011. Web. 01 Apr. 2013. This was a very useful source. It gave many good tips how people can be green in general. The world needs to turn away from harmful objects to the environment and start using green supplies. It will make this world

<https://www.schoolhousesupplies.org/our-impact/>

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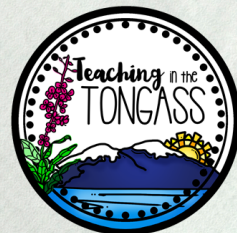
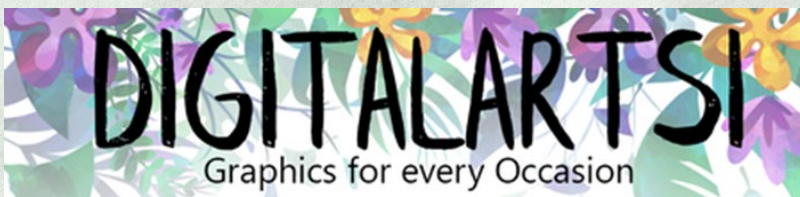
LET'S STAY IN TOUCH!



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SALES AND NEW PRODUCTS



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