Speyer Nature Newsletter

SPEYER SCHOOL

The latest news and updates from Middle School Speyer Environmental Club

Kunal Sinha, from Glencore E-Waste presenting to our class on 10/14/2020

IN THIS ISSUE

Hello, Speyer Students and Teachers!

by Raina Macallister, Arihunt Garg, Jasper Ho, Una Joy Hornick, Ripley Chang, And Milo Farhat

Hello Speyer Legacy School Students and Teachers! This is the Environmental club! This newsletter was created to inform Speyer about our environmental situation. It will include news of the goings-on around Earth along with little tidbit of enticing (interesting things that draw you in) information! Now, without a further ado, let's welcome the first edition of this newsletter.

Environmental Club Newsletter Committee:
Raina Macallister, Arihunt Garg, Jasper Ho, Una Joy Hornick, Ripley Chang Milo Farhat
Leadership Committee:
Milo Farhat, Sidney Helder-Lindt, Reese Romolo, Gabriel Oscher, Gabby Adams
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Endangered Species Committee:
Claire Efran, Gabby Adams, Stella Lebowitz
Letter's Committee:
Milo Farhat, Sidney Helder-Lindt, and Jasper Ho

Keeping up to date on the Earth with a little fun fact!

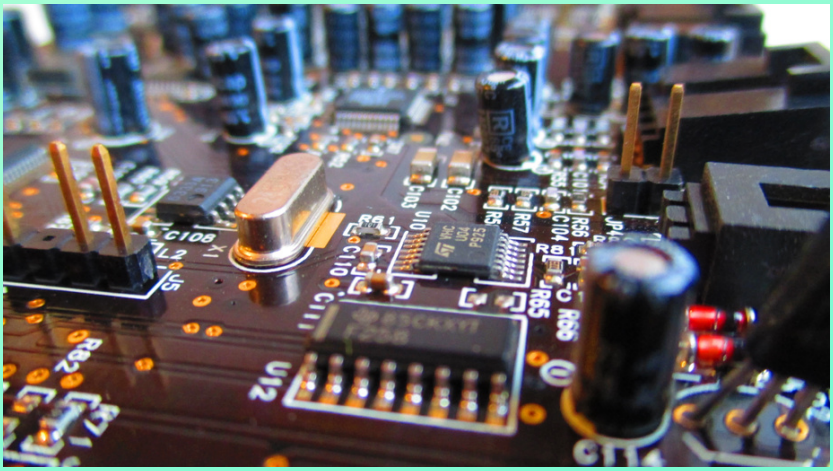
This is something terrible happening RIGHT NOW as you read this. Forest fires are ravaging (destroying and consuming) both California and Australia, to name only two. Often these are caused by pollution and also natural causes. Sound crazy? It's not. Often pollution will be or will contain flammable (easily able to be lit on fire) materials, and climate change heats up the Earth so much that a few sparks from a falling rock can be enough to start a devastating (awful, damaging) wildfire.

Small but Strong

by Raina Macallister

If you went to the beach and got some water, you would be holding millions of microscopic (too tiny to see without a microscope of some sort) fishlike animals. These include zooplankton, also known as protozoa, copepods, gastrotricha, and water fleas. One size up from these are animals you can just barely see. Among these is the tardigrade (also known as water bears or moss piglets), an eight-legged segmented (with different plates next to each other on its skin) animal that grows to only a millimeter at the most. It's as wide as the edge of a credit card! There are three main types of tardigrades: eutardigrades, mesotardigrades, and heterotardigrades. Tardigrades are also important because they are very strong. They can even withstand (stay alive against) going into space. If any animals survived the apocalypse, these tiny water bears would be it. Tardigrades were first discovered in 1773 by the German zoologist Johann August Ephraim Goeze, who first christened them as "little water bears". Their secret is a unique protein, dubbed Dsup, that shields their bodies from x-ray radiation, preventing DNA strands from breaking apart. It's like if your DNA had armor!

E-Waste: Presentation with Kunal Sinha

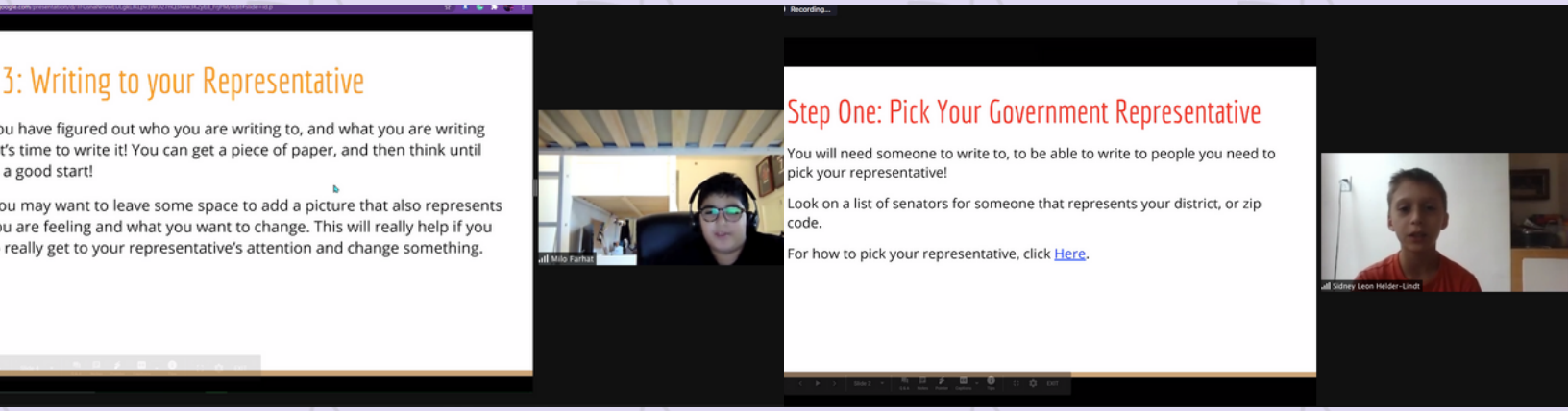


By Jasper Ho, Raina Macallister, Arihunt Garg

Meet Mr. Kunal Sinha. He works with Glencore, a company revolving around technology, and more specifically to recycle electronics that are done serving humans. E-Waste, also known as WEEE, EOL, or Discarded Electronics, which is what Mr. Kunal Sinha calls it, is a much more present form of waste than you might think.

In the year of 2019, a whopping 53.6 million tons of E-waste was produced, and the number is expected to be more like 74.7 million tons in 2030. In one year, on average, just one capita can have 7.2 kg of E-waste. And of these enormous numbers only 17.4% is properly recycled.

What Mr. Sinha does is that he sorts electronics into groups (For example, a Chromebook and a Macbook would be in the same segment) and from there calculates the percentiles of materials that go into a piece of technology. Then they can recycle materials that are common and unneeded, and reuse those that are more scarce, like gold, platinum, palladium, and mercury, which has to be carefully handled at all times as it is poisonous. Have you ever seen a piece of technology drop and break and wondered why it broke so easily? This is because companies often don't go to great lengths to create durable and long lasting products.



Letters To the Senators

By Ripley Chang

In Environmental Club, we're focusing on trying to make big changes in the world. We're starting by writing letters to senators in our area and asking what they can do in their vicinity related to helping the environment. We went through a process of learning how to write letters to senators. Writing letters to senators isn't just a joke though, senators are important people and so we have to make sure our letters have an important reason so that way they actually might change something about their area in the world.