



The Hiland Hall School NEWSLETTER

Spring 2022



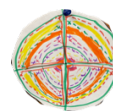
Map of Alexander the Great's empire
by Matthew age, 11

Dear Friends,

Spring is here with the excitement of Independent Studies, the all-school play, end of year picnic and graduation. We have two graduating seniors this year – twin brothers now in their 9th year at the Hiland Hall School. We are highlighting their work in this issue as well as other student work.

Enjoy!

Meg

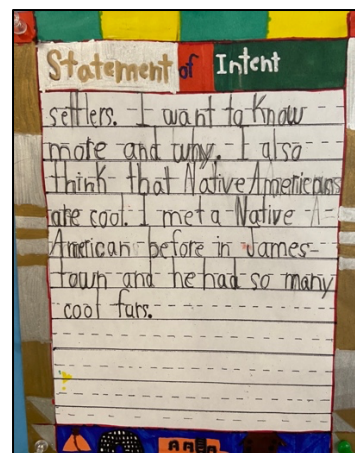
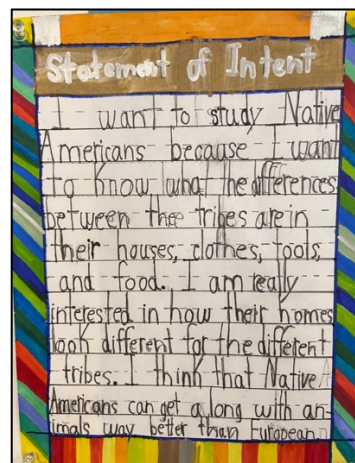


North Group math work with Jessica

On Independent Studies - from Quena

Each Spring, all of our students choose a topic for their Independent Study. This is another way we honor student choice at school. Everyone must complete a study, but have a choice about what to study. The studies are “independent” because they are separate from other curricular strands, although we constantly find that, as we learn more about them, many studies and interests are connected. Teachers support students at all levels from gathering research materials (books, videos, diagrams, maps, interviews with experts) to teaching students how to take notes and transforming their learnings into knowledge that can be shared.

The variety of subjects for Independent Studies often open up new curricular threads and provide springboards for explorations into science, social studies, drama, language arts, mathematics, and art. This term, Independent Study topics for the elementary group include: Barack Obama, chemistry, The Babysitters Club Series, giraffes, heavy metal bands, Babe Ruth, sheep, Native American tribes, Aaron Burr, nutrition, hummingbirds, maps, Hamilton the Musical, Alexander Hamilton, tigers, quetzals, and Northern pike. Learning how to learn more about what fascinates us about the world is a lifelong and joyful skill. Students and teachers alike look forward to Independent Study time.

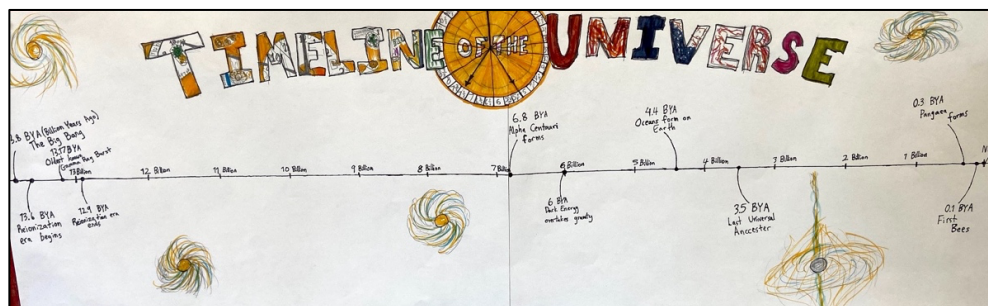


Independent Study Statement of Intent by
Everett age, 9



The Hiland Hall School NEWSLETTER

Spring 2022



Timeline by Linus age, 13

How Satellites could End the Space Age: the Kessler syndrome

By Linus Tucker age, 13

Satellites are important. They perform a myriad of functions, from navigation to science to television. On the 4th of October, 1957, Sputnik 1, the first satellite ever to be put into Earth orbit, was launched. But now, 64 years and 65 hundred satellites later, they've become a massive problem. We call this the Kessler syndrome, named after the NASA scientist Donald J. Kessler who first proposed this issue in 1978. In this essay, I will explain the cause of the Kessler syndrome and discuss some proposed solutions. In conclusion, I will discuss why I care about the issue, what I think about the proposed solutions, and why I have hope that this problem, as well as many others facing us today, will be solved and lead to a brighter future for humanity.

As of the 1st of January, 2021, there are nearly 3,372 active artificial satellites in Earth's orbit. But that's just the tip of the iceberg; there are around 10 thousand fragments of space junk large enough to be tracked, and there could be more than 100 million uncontrolled objects too small to show up on radar scans. These fragments can move as fast as 16.2 thousand miles per hour. Shards moving that fast could cause damage to other satellites, ranging from dents and scratches to explosions and total obliteration. And what does that leave? Thousands more shards to continue the process. Although there have been attempts to regulate the amount of space junk satellites eject, no effort has been very successful.

Luckily, it's not all bad. There have been several

proposals for how to slow or stop the syndrome. The only problem is that all these are expensive, and no one's putting up the money required. Aaron Parness, a robotics researcher at the Jet Propulsion Laboratory (JPL), collaborated with a team of Stanford engineers to create a unique solution: sticky pads that can grab objects in space. All and all, the one major problem has been that it's hard to convince governments to back this plan and others like it. But the rise of private space flight companies makes it a lot easier to get the money needed. Even preventing a small number of collisions can vastly decrease future ones. NASA estimates suggest that removing five high-risk satellites per year could stop the increase altogether and keep things where they are today.

I feel strongly that the Kessler syndrome should be fixed. Although it is likely not the largest and most pressing challenge we are facing today, I feel that it is a very real and important problem. Not only could it potentially trap us on Earth forever, but it could also make it impossible to maintain a network of satellites, thus taking away many things that we today take for granted. Although this and many other challenges humanity has found and created may seem daunting, I find hope in the fact that so many people around the world try and find ways to fix these roadblocks. Not only that, but once they have found a solution, they try to implement it.

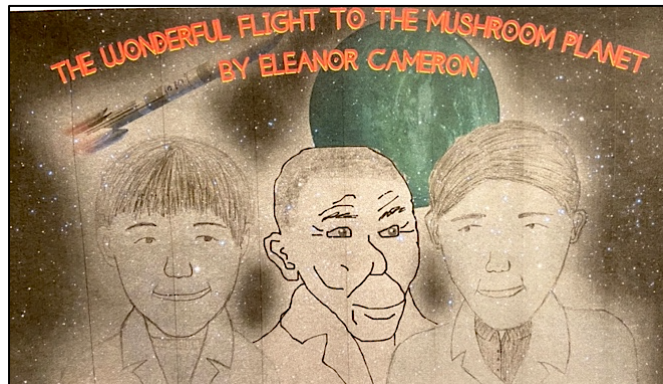
Linus placed 2nd in his region for this essay in *Hildene's Lincoln Essay Competition 2022*. This year's prompt: "What Gives You Hope?"



The Hiland Hall School

NEWSLETTER

Spring 2022



Digital book cover art by Noel age, 13

"The Wonderful Flight to the Mushroom Planet"

Reader Reflection by Noel age, 13

The Wonderful Flight to the Mushroom Planet is a fun, imaginative, science fiction, about a boy named David, his friend Chuck, and their flight to the mushroom planet. David and Chuck are into space travel and science, so when they see an advertisement in the newspaper for a spaceship built by kids, they jump on it and one. They bring it to Mr. Bass, the man who placed the advertisement. He explains to them that his descendants are from a nearby planet called Basidium-X. Mr. Bass senses that the Mushroom People on Basidium are in danger. He sends David and Chuck in the spaceship to find out what is the matter.

When the two boys arrive, they find that drought has destroyed the Mushroom People's crops and they are starving. David and Chuck give Mrs. Pennyfeathers, a chicken they brought with them, to the Mushroom People. Chuck and David return to Earth. Shortly thereafter, Mr. Bass "dies". Or at least, the closest thing to dying that for the Mushroom People, who, instead of dying, blow away on the wind and begin a new life. This is what happens to Mr. Bass. He leaves Chuck and David his entire estate, and that's where the book ends.

So, that is what the book is about, but what is the book *about*? What is its deeper meaning? Well, probably the miracle of youth. Chuck and David build the spaceship without any help from grown-ups. After all, as you grow older, you become more rigid. Less

flexible. For all the calculations and computations it

takes adults to go to the stars, these kids can do it with boat ribbing and sheet metal. While in reality, this makes no sense, it is a metaphor for what you lose when you grow up. Mr. Bass is the only grown-up in the book who seems a bit like a kid, but even he is older and wiser, and can't go to Basidium.

Children are far more observant than adults. When I was young, I was in the car, and I saw so much. I saw much more than my eyes take in nowadays because it was all new. I hadn't seen any of it before. I saw a mailbox that looked like the head of a fish. It made Linus and I laugh so hard! Every time we went by it we exclaimed, "The fish mailbox!" I still consider myself a kid, but I've already lost so much youth. I get some of it back every time I do something completely new and exciting. But I can never get it all back. In a way, you know more about what you don't know about than (those) who know about it. This sounds paradoxical, but it makes perfect sense. Someone who wants to read but can't read will see much more writing than someone who can read. The state of unawareness heightens one's perception, which is why the younger the kid, the more they take in. This is one of the reasons youth is regarded as so precious. Especially when you add in the fact that it comes but once. This is the nature of existence.

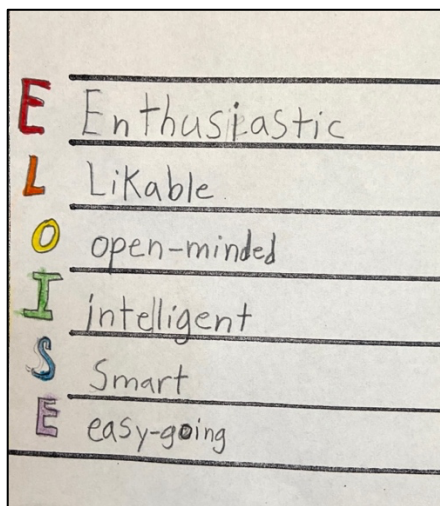
Thank you.



The Hiland Hall School NEWSLETTER

Spring 2022

Other Classroom Activity



Acrostic poem by Eloise age, 8

Studying Yellowstone from Brennan

Right before holiday break, Middle School started looking more closely at Yellowstone National Park – it's history, geography, the concept of trophic cascade, its status as 'super volcano' and the Hayden Expedition of 1871. This has led to a larger study on National Parks this spring.



Graphic representation by Sadie age, 13

Sadie was selected as a runner-up for this painting in the Scholastic Mapman contest



Writing and Drawing by Lillian age, 8

Call of the Wild poem

Into the wild Buck went
To lead and pull a mighty load
a life or death brawl with a very close rival
Passing through the hands and harnesses of many owners
Learning the law of club and fang
He pulled with endless strength for a yellowish medal
Driving men crazy with a sense for money
saving his favorite owners life not one but two times
he pulled a heavy sled many long miles
finally settled down to rest his old bones

Poem by Tai age, 12