



THE BRUIN BULLETIN

Winter Edition 2025

Dark Oxygen: What is it and
How Does it Work?

Student Art

Interviews

Opinion Pieces

Editor's Note

The Bruin Bulletin would like to acknowledge and honour that our club operates on the unceded and ancestral lands that rightfully belong to the Musqueam, Squamish and Tsleil-Waututh Nations. As a newspaper we hold an important commitment to decolonization through journalism and uplifting Indigenous experiences and voices. Our goal for this issue was to produce articles that highlight student voices here at Britannia. We strive to make the Bruin Bulletin a safe outlet for all students within the school to report on community based issues, write about personal interests, and share all kinds of creative work. We hope you enjoy this year's first issue!

- *Elsie Iwankow, editor-and-chief*

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What the POP is going on?

By: Chiya Amin (11)

Since the beginning of this year, we've seen the enjoyment of pop music rise more for many artists from new singles to new tours. This includes artists like Sabrina Carpenter, Charli XCX, Chappell Roan, Gracie Abrams, and many others. However, many artists released albums in 2023 that were more indie-focused such as albums like 'The Record' by Boygenius, 'Good Riddance' by Gracie Abrams, 'This Is Why' by Paramore, and 'First Two Pages of Frankenstein' by The National. But why has this shift in music happened and what could the future of pop music hold?

One big reason for the shift in genres is that people yearn for the late 2000s-early 2010s pop era. When looking back on the previous era of pop, artists that you would hear as a part of the conversation were names such as Katy Perry, Ariana Grande, Bruno Mars, Taylor Swift, and Pharrell Williams because their music was highly enjoyed by the general public at that time. But



Credit: Ryan Clemens

since then, I and many other people were disappointed with how pop music was being shaped and felt that it wouldn't be as good or as highly regarded as the 2000s. However, this year, there was a rise in pop music. People have appreciated albums like 'Short n Sweet' by Sabrina Carpenter, 'The Rise And Fall Of A Midwest Princess' by Chappell Roan, 'Eternal Sunshine' by Ariana Grande, and arguably the biggest release of this year 'Brat' by Charli XCX because of their catchy melodies as well as well written lyrics. With this, we've also seen artists like Olivia Rodrigo and Sabrina Carpenter be called the 'future of pop' since they're seen as artists who can capture the essence of it.

With all this rise in music, the real question in people's minds is: what now? Recently, many people including myself have expressed their anxiousness for the future of music as the new year approaches because it wouldn't be as released for different genres as this year was. However

with new albums like 'So Close To What' by Tate Mcrae releasing and the SZA and Kendrick Lamar joint tour in 2025, no one truly knows what'll happen after this year. One thing that's for sure though is that for artists like Chappell Roan, Sabrina Carpenter, and Charli XCX, this year is only the beginning and soon we'll see them, and other artists, on the rise.



Credit: Agata Serge



Credit: Astrida Valigorsky

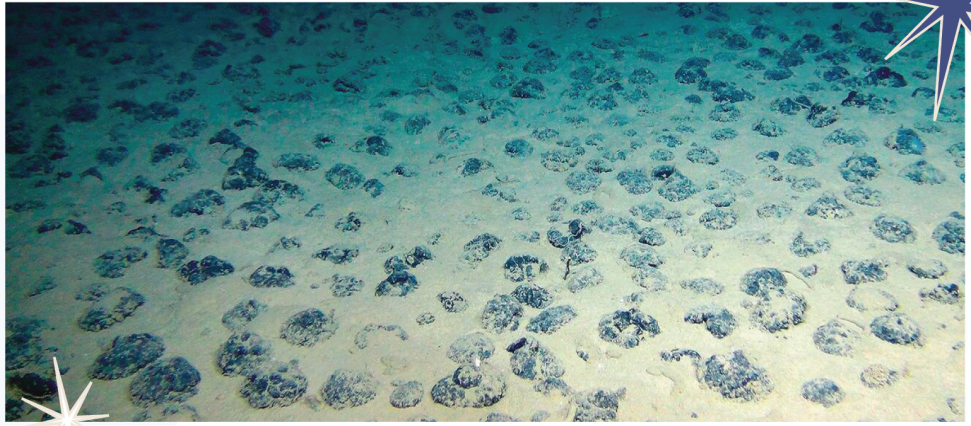
Dark Oxygen: What Is it and How Does it Work?

By: Dalia McKechnie (12)

For many years we have thought that deep sea oxygen has come from photosynthesis in plants and living organisms, turns out it's not.

How Most of the Earth's Oxygen Forms

Almost all of Earth's oxygen is produced by photosynthesis which is carried out by plants, algae and certain types of bacteria. Oxygen produced on land is spread through Earth by atmospheric circulation, which is the movement of air around Earth. However, how it gets to the bottom of the ocean is more complicated. Oxygen at the surface of the ocean diffuses directly into the surface of the water by winds and ocean waves. The surface of water can also be filled with photosynthetic organisms that are producing oxygen directly into the water. Phytoplankton alone, which are in water, produce 50% of the planet's oxygen. Since sunlight entering water can only reach between 200m to 1000m, oxygen availability decreases because photosynthesis can no longer occur. How oxygen reaches deeper water is because gases dissolve better in cold water than in warm water since the atoms have less energy and won't take up as much volume. Cold water is also denser than warm water, so it sinks to the bottom of the ocean allowing the oxygen to get deeper. This allows polar water to soak up large amounts of oxygen and carry it down to the ocean floor creating the Thermohaline circulation convention current. This is a global current



Manganese nodules in the Clarion-Clipperton Zone / Credit: Rov Kiel

that moves oxygen rich water around the ocean floors.

What is Dark Oxygen?

In 2013 while studying biological activity in the Clarion-Clipperton Zone (CCZ) in the Pacific Ocean, a researcher named Andrew Sweetman, and his team discovered something strange. As a part of their research they were monitoring oxygen levels at the bottom of the ocean and saw that the oxygen levels were going up. Ten years later in 2023, they made the profound discovery of dark oxygen. Dark oxygen refers to the production of oxygen without light at the bottom of the sea floor. Sweetman uncovered that this oxygen is produced by polymetallic nodules, which are coal-like mineral rocks, that are rich with metals such as manganese, cobalt, nickel and iron. Under specific circumstances, salt water with polymetallic nodules present can produce tiny electric currents that are almost equal to the electricity required to divide the salt water through a process known as electrolysis. This process splits elements and compounds by using electricity. The necessary energy for electrolysis comes from the potential difference between metal ions in the nodule layers. Potential difference is a measure of electron pressure, or the difference in energy between two different points. The dark oxygen was thought to be created by polymetallic

nodules electrolyzing salt water to produce hydrogen and oxygen, according to Sweetman's team. The discovery of non-biological oxygen production can contribute to our understanding of evolution and deep-sea ecosystems.

The Impact of this Discovery

For many scientific communities the news of dark oxygen is revolutionary. For example, this discovery could reveal new data about how life began on Earth, showing us that life that breathes oxygen could have been around before photosynthesis. This new finding also asks the question, if rocks are performing electrolysis on Earth, could they also be doing it on other planets? Dark oxygen is beneficial to many areas of science but as for the deep-sea mining companies that harvest the polymetallic nodules, it isn't. The mining of polymetallic nodules could be affecting deep-sea ecosystems by creating dead zones in our ocean. Dead zones are areas where less oxygen is being dissolved into the water killing marine life and causing mobile animals such as fish to migrate. Due to this the deep-sea mining companies are trying to deny the discovery of dark oxygen because if it gets approved, they won't be able to mine nickel, cobalt and manganese which are metals we use in our batteries and electronic devices.

Study Techniques

By: Lara Torbica (12)

As we near the end of our semester, projects, assignments and tests begin to pile up. Many of us may struggle with the given workload and seek techniques to efficiently structure our study time. In this article, we'll explore different approaches and tips for note-taking and revising.

Learning

Learning methods such as note-taking, Pomodoro, and Flashcards function as different ways to approach the initial processing of information. Many of us stick to periodically re-writing our teachers notes or relying on Onenote when exposed to a new unit in class. It can be found that switching up the style in which you take notes helps in organizing your thoughts. Highlighting key points creates a different and interesting experience that allows you to actually remember the content. Cornell style notes is a style of notetaking where you divide your page into 3 columns and gather key points on the 1st section. On the 2nd, you explain what each key point means in 1-2 sentences. Finally, you summarize your notes in the 3rd column and include any last take-aways. Any alternative note-taking styles would be useful to stimulate your mind and give yourself actualized goals when listening to a lesson. Pomodoro is a method that divides your work block into intervals of study time and breaks. This keeps your mind focused long enough without feeling burnt out and rewards your efforts. The Flashcard technique may also be helpful. This technique lets you input the primary knowledge your teachers or homework emphasizes then, familiarizes you with concepts and thinking through your solving.

Application

The Feynman Technique is used once you have gained a preliminary understanding on your topic. You may recite, write or record yourself giving a lesson explaining your subject in enough detail to where a hypothetical audience could understand it. Without relying on outside information too heavily, watching videos on your topic can be an easy way to go over concepts in your mind and follow along. You want to prioritize your own practice first however, familiarity and review can be useful. Lastly, do the work! The only way to improve is to apply your knowledge towards your subject. It can be frustrating when your homework piles up and you cannot even decipher the 1st question on your paper. After applying some of these tips, you will be more than prepared to answer that first question.

Memorization

A tip that might be the most helpful to make sure you understand a concept completely and allow you to precisely recall what you have learned is to create a "cheat sheet". Naturally, not each test or assignment allows for cheat sheets to be used. Yet, it can be found, creating a clean, organized, step-by-step process of a topic can aid in understanding how complete your knowledge is, and leaves you with a neatly arranged procedure to look through before exams instead of trudging through various notebooks and homeworks. Lastly, depending on how focused you are, collab-

orating with students and friends may aid in pointing out your weaknesses. You can apply some of your methods such as Feynman during this. Not all of us are in the privilege of accessing tutors although, isolating yourself completely, especially when tackling topics previously unfamiliar to you is never a good idea. Others will always notice what you cannot. To truly thrive, outside help is immensely impactful.

Additionally, studying before a heavy dinner and right before bed, sleeping at least eight hours, eating and hydrating properly, and regular exercise all impact your energy levels and cognitive function. If you already dedicate yourself to your studies and find yourself with lackluster results, you may be neglecting your personal health!

In conclusion, while this range of methods may seem useful in theory, the best approach will always be what works for the individual. If you have a particular style, go for it! Although, as many of us consider post-secondary education and move up in our grades, our learning becomes more self-sufficient and memory, understanding and shortcuts prove themselves to be far more valuable than intuition.

Exploring Street Front: Alternative Education Program in Vancouver

By: Ann Ho (12)

Streetfront is an innovative alternative education program offered by the Vancouver School Board, based at Britannia Secondary School in Vancouver, British Columbia. This unique program caters to students in grades 8 to 10, providing a distinctive approach to learning that emphasizes physical activities and outdoor experiences.

At Streetfront, education goes beyond traditional classroom settings. The curriculum includes core subjects such as Math, Science, Social Studies, and English, ensuring that students meet academic standards while also engaging in practical, hands-on learning. In addition to these foundational subjects, Streetfront offers a range of specialized classes that promote physical health and well-being, including Physical Education, Outdoor Educa-

tion, Planning, Woodworking, and Foods classes.

One of the program's standout features is its commitment to physical activity. Streetfront operates three days a week, allowing students time to focus on both their academics and their physical fitness. Many students participate in training for major events like the Seattle and Vancouver full and half marathons, fostering a sense of community and achievement. This focus on fitness not only promotes healthy lifestyles but also encourages teamwork and perseverance among students.

Streetfront also prioritizes outdoor learning, with approximately 35 days out of the 190 school days spent in natural environments. This includes

three four-day camp trips that provide students with immersive experiences in nature. These outdoor excursions enhance students' appreciation for the environment and contribute to their personal development, offering lessons that extend far beyond the classroom.

Overall, Streetfront is more than just an educational program; it is a holistic approach to learning that integrates physical activity, outdoor exploration, and academic rigor. By providing a supportive and engaging environment, Streetfront helps students develop essential skills for both their educational journey and their lives beyond school. This alternative education program exemplifies the importance of experiential learning and the positive impact of physical activity on student engagement and success.



Vancouver to Deer Lake, Newfoundland / Credit: Street Front

The Energy Cost of Knowledge: Are AI's New Capabilities Widening Inequality?

By: Eliel Vega (12)

In the blink of an eye, artificial intelligence can generate breathtaking images, compose complex music, and solve intricate problems. However, behind every AI-generated marvel lies an invisible energy footprint that's rapidly growing — and potentially deepening societal divides. (Sarpotdar et al. 2022) As AI capabilities expand, the hidden costs of these advancements demand closer examination and awareness, not just for their environmental impacts but also for their social and ethical implications.

The Hidden Power Hunger of AI

Recent research has uncovered a startling fact: generating a single AI image can consume as much electricity as charging your smartphone to full capacity (Luccioni et al. 2024). While this may seem small, the energy implications become significant when scaled to billions of daily interactions with AI-powered tools. The computational demands of training and running advanced AI models have

skyrocketed, with tech giants reporting unprecedented energy consumption levels tied directly to AI development.

For example, Google has witnessed significant energy demand surges alongside its AI initiatives. Training a single large language model can consume enough electricity to power an average American home for weeks (Hoffman, 2025). These massive energy requirements largely draw from fossil fuels and non-renewable sources, meaning that each AI breakthrough indirectly accelerates climate change. The environmental cost is undeniable. As more computational power is poured into developing cutting-edge AI models, the carbon emissions tied to energy consumption climb, intensifying the global climate crisis. What often goes unnoticed, however, are the broader societal consequences of this resource-intensive pursuit.

Unequal Burdens, Unequal Consequences

The energy ecosystem supporting AI advancements isn't just an environmental issue — it's a profoundly human one. The vast computing facilities and energy-intensive data centers driving AI development are often disproportionately located in economically disadvantaged regions. This dynamic creates a double burden

for low-income communities. These vulnerable populations face a triple threat:

1. Increased local pollution from energy production, especially when fossil fuels are used.
2. Higher electricity prices driven by the immense energy demands of AI technologies, which strain local grids.

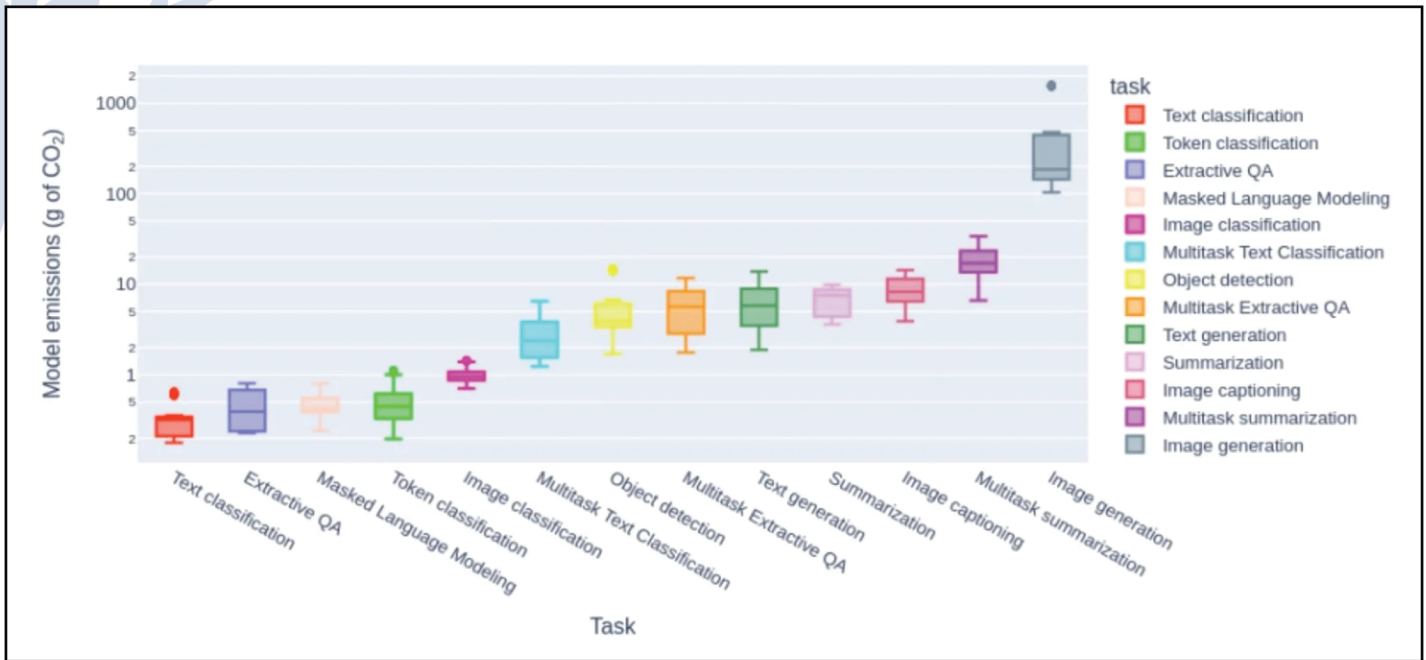
According to the World Health Organization, in 2022 there were over 685 million people without electricity in 2022, which heavily limited access to the technological benefits created, such as AI-powered healthcare or educational tools, which are often designed for wealthier markets. These tools are driven by capitalistic priorities and usually come at the expense of quality and usefulness.

The pursuit of cutting-edge knowledge inadvertently reinforces a form of technological inequality. While some reap the rewards of AI innovations, the most vulnerable are affected by collecting the economic and environmental consequences. This raises critical questions about equity in the development and deployment of AI technologies. Is progress truly progressive if it perpetuates or exacerbates systemic disparities?

Ethical Crossroads: Innovation Versus Equality

As we stand at the intersection of technological progress and environmental sustain-
abil-

Photo Credit: ChatGPT



ity, we face a critical ethical dilemma. How can we balance the incredible potential of artificial intelligence with the finite resources of our planet? Is it possible to achieve technological advancements without deepening societal inequalities?

While these questions are complex, alternative pathways do exist. Policymakers, developers, and industry leaders have the power to prioritize sustainability and equity in their decision-making. For instance:

1. Investing in energy-efficient AI models: Researchers can develop algorithms optimized for lower energy consumption without sacrificing performance.
2. Transitioning to renewable energy sources: Shifting data centers to run on solar, wind, or other renewable sources would dramatically reduce the carbon footprint of AI systems.
3. Ensuring fair energy distribution: Governments and organizations can implement policies to prevent low-income communities from bearing the rising energy demands or pollution.

These solutions require collaboration, foresight, and a commitment to responsible innovation. They also require reframing AI development not as a race to create the most powerful and profitable systems, but as a shared effort to build technologies that genuinely benefit humanity.

A Call for Responsible Innovation

The future of artificial intelligence isn't just about what these technologies can achieve; it's about how we choose to develop and deploy them. To harness AI's transformative power responsibly, we must address its hidden costs head-on. That means accounting for its environmental impact, redistributing its benefits equitably, and ensuring that progress doesn't come at the expense of vulnerable populations.

As we stand on the precipice of unprecedented technological transformation, one pressing question looms: Are we developing AI for everyone, or only for those who can afford its hidden costs, or escape its damaging consequences?

The answer to this question will define not just the future of AI, but the broader human experience in the decades to come. It is a call to action for innovators, policymakers, and society as a whole to ensure that the pursuit of knowledge doesn't deepen the divides it has the potential to bridge.

Conclusion

As artificial intelligence continues to reshape the world, it's imperative that we prioritize sustainability, equity, and responsibility. The energy cost of knowledge is high, but with conscious choices, we can ensure that the rewards of AI benefit everyone — not just a privileged few. In doing so, we can transform AI from a tool of inequality into one of inclusivity and shared progress. There is lots to consider when making decisions that impact the technological carbon footprint, the most important factor however is to be aware of where we get answers for our homework, imagine how much better for the environment it would be to write essays yourself.



er truly there.

Diet culture is similar: a lifestyle that drains people of their energy and time (like a desert) as it defines their “problems” and produces false hopes – like a mirage. Diet culture is a belief system that idealizes thinness and demonizes fatness, creating a moral hierarchy based on weight and the way people look. It affects everyone, whether we realize it or not.

Diet culture is built on lies, propaganda, and rumors and it is increasingly difficult to determine whether something is fact or fib as media is so readily available. For example, health and nutrition advice is some of the most viewed content on TikTok (of which there are over a billion users worldwide). Despite all the advice, much of it may be inaccurate. According to a study by MyFitnessPal and Dublin City University, only 2.1% of 67,000 videos containing information on health and nutrition were true. It is also important to note that someone’s body type is not necessarily the result of their diet or what they are promoting (Vogel and Hambright). Moreover, images we see online and in advertising could be digitally altered.

Not only are we consuming largely inaccurate advice, but we are also exposed to an untrue bias that pressures us to look a certain way. A 2016 study compared the body ideals of women from two different villages in Nicaragua. One village had access to TV (with western shows) while the other didn’t. The ones who watched TV had thinner body ideals than the ones who did not. There is a perceived link between be-

ing thin and being more successful and of higher social status, as portrayed in advertising and television.

Even in our day-to-day lives we see people being treated unfairly based on their size. An example of this fatphobia is individuals with a higher weight often face discrimination and lower wages (Stanborough and Daniel-Ulloa). Stated by Dr. David Altshuler, “The problem of obesity is not just a problem of health... it’s a problem of society... how society treats people who are obese.” There is a definite stigma around being of greater weight or having more fat, causing many people to hyper focus on being thin, or “healthy”.

However, Is it true that being thinner makes you happier? Jessie Kneeland, a body neutrality influencer, doesn’t think so. They used to work with “the most conventionally attractive people in the world” as a personal trainer. Jessie found that these people had insecurities and body image issues just like everyone else. Their conclusion was that having the “ideal body” is not the key to confidence that somehow so many people think it is. If being thin is not related to being happier, then is it at least related to being healthier? Ultimately no. Being thin is not the same as being healthy. There is no real proof that slimming down increases longevity or reduces health risks (Ross).

Further evidence of this pressure to be thin lies within the weight-loss industry. Globally*, the weight management market went from \$349.36 billion in 2023 to \$384.06 billion in 2024 – that’s nearly a ten per cent increase! Sneaking onto billboards, TV, social media, advertisements, and into magazines, diet culture tells us “everything we need”. Suggesting supplements, calorie counting apps, diets, or other products

Are you Believing Lies?

By: Tikki Wilkinson (12)

Imagine this: you’re in a desert, desperate for relief and security. You scour the horizon for an oasis; eventually you find one and head toward it. You walk for miles, gradually getting weaker. After much time, you realize with disappointment that the oasis was a mirage all along. Somehow, you feel as though you didn’t try hard enough, but every time you see one, the oasis is never-

According to the CDC, “BMI does not distinguish between fat, muscle, and bone mass” (all of which contribute to a person’s weight).

Moreover, the BMI was initially used to measure the size of the average Belgian man and was designed with no intention of defining health (Wisdom)

to correct our “problems”, implying that something about the way you look is wrong and that you desperately need to fix it. This messaging is not true and is part of the reason why whether someone takes extreme or minimal measures in the hopes of achieving some sort of diet culture induced mindset, there is no winning.

Furthermore, these products don’t always work and often come with side effects. Many weight-loss supplements are not required to be inspected by the FDA or regulated to be sold to consumers (Lau). These supplements can cause digestive, circulatory, and kidney issues; along with dehydration, liver failure, and other complications (NIH). Psychiatrist Kelli Rugless believes consumers are willing to take the risk of using these supplements over not fitting into the ideal body standard and going against the pressures of society.

Should you Diet?

Another reason there is no winning in diet culture is, as paraphrased by Robert Shmerling (Harvard Health), “diets simply don’t work for the vast majority of people”.

The body does a lot to ensure that it maintains a weight at which it functions optimally. This weight range, known as set point weight, is unique for each individual and is difficult to change. Our bodies adjust depending on energy intake and output. For example, if we eat more than normal, our bodies will increase our metabolism; if we eat less, our bodies will increase appetite and slow metabolism in an attempt to preserve energy. Set point theory explains why people tend to regain the weight they lost during a

diet or put on more weight than when they started. When someone restricts their energy intake for long periods of time, as is sometimes done when dieting, the body believes that person is in a famine and needs extra energy stores. This results in raising that person’s set point (Knight). Another symptom of restriction is obsession around “forbidden” foods. This can result in consuming more than someone would if they weren’t dieting.

What can we do?

It’s hard to not to get caught up in the toxic messaging of diet culture. The following are a few steps anyone can take to stop diet culture and escape believing in its harmful messaging.

Skip the Scale.

Weighing yourself frequently can contribute to fixating on weight. It is important to note that every body is different, and weight is not a reliable indicator of health. There are many factors that contribute to one’s health including lung and heart fitness, genetics, physical activity, metabolic function, and mental wellness; “You can be healthy no matter your size” (Ross). Furthermore, it is virtually impossible to determine if someone is healthy just by looking at them. Diet culture puts too much focus on weight and appearance. People are so much more than numbers and shapes. As the Kite sisters say in *More than a Body*, “the body is an instrument, not an ornament”.

Stop Labeling Food as “Good” or “Bad”

This causes unnecessary

guilt and puts stigma on eating certain foods, whether “good” or “bad”. By labelling food as good or bad, we connect it to our morality (Pleskot). The truth is, there is no good or bad food. Food is food and we need a wide variety of it to function optimally.

Know Fact from Fib

It is increasingly challenging to know what is true and what is not when it comes to information on nutrition, health, or exercise. Be wary of what you hear and question where it’s coming from. When many people say something is true, it doesn’t mean that it is. For example, many people say being thin is better, however, this is false – especially considering weight is not worth.

Conclusion

Diet culture is constantly bombarding us with its consistently harmful messages. Whether at birthday parties, online, or almost anywhere else, diet culture is an enormous web of lies that so many of us get caught up in. No matter what you eat, how much you exercise, or whatever size you are, you are a valuable human being. Don’t let diet culture make you or anyone else feel any less.





Art by Jemma Wilkinson

Chasing the Bug

By: Jemma Wilkinson (9)

Blue snored softly, he was curled up in a grass bed, the sunlight warming him to the bone.

Buzz buzz

He snorted in frustration; whatever that sound was it was disturbing his slumber. He shoved his face into his tiny arms attempting to block out the sound

Buzzzzzzzz

He growled and got to his feet, scanning the world around him for whatever could be causing the sound. The grass looked normal, along with the other occasional stone or flower. He brought his nose to the ground, sniffing aggressively. Any other creature

might think he was crazy, but he had to find the cause of his great disturbance and get his revenge.

Buzzzz buzzzz

His gaze shot up to see a huge bug with fascinating sky-blue wings. Blue's thirst for vengeance slipped away in an instant to be replaced with wonder. The bug fluttered around in circles before plopping down on a small patch of dirt. In a blur of blue and pink he scampered towards the spot where the Insect was. His eyes sparkled in delight to find it, but his heart sank when its wings brought it back into the sky. Blue quickly decided he would name it the big bob, and he ran to chase after it. He managed to cross a river, a forest and a part of the grassland, before realizing

that Bob had made him do a huge circle. The sun had set, and his eyes began to droop. After a moment he curled up into his grass bed and fell asleep.



Scan for Video Animation of 'Untitled'

About Betta Fish and Why You Should Get Them

By: Janelle Mendez (9)

A lot of people say fish in general are boring pets, but a lot of those same people have never owned fish before. Here is why I love betta fish, based on my personal experiences with them, as well as the requirements if someone were to own one.

Over the course of my life, I've had around 4 bettas at separate times, and I enjoyed having every one of them. Contrary to popular belief, Betta fish are fun and playful animals. It's fun to engage with them with various toys, and you can even teach them tricks. With just a small plastic ping pong ball you can watch them jump at it and push it around. It's easy to teach them to follow a finger as well. In my experience, I don't always have to directly teach my betta fish how to follow my finger, sometimes they just follow it by instinct because they are used to seeing my finger give them food.

There are certain items that are a priority, and some that are optional. A priority would be an aquarium, but people should specifically use a tank for it instead of a fishbowl. Bettas need space to swim in because if the space they're in is too small, their feces will pollute the water much quicker than normal, and a small area to swim in is uncomfortable in general. This is why fishbowls aren't recommended for any type of fish. On top of that, fishbowls have inconsistent temperature, and it would be difficult to include the necessities in it properly. Bettas are tropical fish who live in warmer temperatures, so a tank is much better because it has a proper opening that's perfect for putting a heater and filter on the side. A fish tank is usually a glass rectangle

with a black, plastic border on the top and bottom of it, whereas a fishbowl is a glass sphere-like object that has a circular opening. The tank should at least be able to hold 5 gallons of water, a good amount of space for a betta. Another priority is to put a sort of plant decoration that is preferably real, or else they'll be bored in their empty tank. The reason why it would be better if the plants were real is because plastic plants have a possibility of catching your betta's fin or tail on a sharp corner. Another thing that would be nice to add to the tank would be gravel/sand at the bottom of the tank, or a cave which would also work as a cozier place for a betta to sleep and play in.

There are things an owner should do with their betta to make them bond with them quicker, for example they should interact with them gently, so they won't see their actions as a threat. They should try not to make any sudden movements when their finger or toy is in the water or else the betta will get

spooked, and if the betta gets spooked too much they'll swim away. They should make sure to wash their hands before they put their finger in the water, so the bacteria from their hands won't pollute the water, nor their betta. People

should feed their betta 2 times a day and only 2 times, or else they will get bloated which will cause constipation or discharge of feces to be more frequent. If they are emptying their bowels too frequently, then there will be buildup which will then pollute the water faster. People should feed them in the morning and in the evening. For cleaning, don't forget to do it every 2-3 weeks. This will keep the tank looking good and it will also prevent ammonia, as well as keeping the nitrate levels low.

All bettas have different personalities, so people should interact with them accordingly. If they are shyer than usual when first bought, don't rush them and be gentle. Male betta fish tend to be a bit more aggressive than females, although they have longer tails. Their lifespans tend to be longer than a female's, but both can live for 2-4 years if they are taken care of properly. I've loved the time I've spent with all my betta fish, from when I was 7 years old to 12. They are amazing for first time pets, and even if they aren't a first, they're fun to have. I hope people consider getting one!



Credit: The
Spurce Pets

Has Anything Changed About Phones In Classrooms?

By: Jacob Tsang (12)

Over the summer, the British Columbia Federal Government issued and announced a provincial wide cell phone policy that will be implemented in the upcoming school year in which all schools in the province are required to follow. The policy insists that Boards must ensure their codes of conduct includes one or more statements about restricting the use of personal digital devices (any personal electronic device that can be used to communicate or to access the internet, such as a cell phone or a tablet) at school.

The statements about restricting the use of personal digital devices at school according to the Government of British Columbia's website must address the following matters:

- 1) restrictions on the use of personal digital devices at school, including during hours of instruction
- 2) use of personal digital devices for instructional purposes and digital literacy
- 3) use of personal digital devices that is appropriate to a student's age and developmental stage
- 4) accessibility and accommodation needs
- 5) medical and health needs

- 6) equity to support learning outcomes

As the new school year approached and classes were back in session, the "new cellphone

policy" and its implementation became widely known among staff and students. Teachers became more engaged in enforcing the rules and regulations while students became more aware of their usage of cellphones during instructional time.

As time passed by, many noticed that this new policy was not much of a difference from previous years. This article investigates the details and implications of this policy.

In this process, I decided to interview some staff and students at Britannia Secondary to get their input and thoughts on this policy.

With these interviews, my goal is to explore how this cell phone policy is perceived by staff and students along with its impact on our school environment. Is it truly making a difference?

What do you know about the new cell phone policy?

"We aren't allowed to use phones in class. We're only allowed to use it for educational purposes. Some teacher's teachers don't enforce it as much as others" Edwin Zhou, grade 11.

"No cellphones in class. It's more strict this year and teachers are taking it more seriously compared to last year." Angela Ly, grade 12.

How are your teachers following this policy?

"For some teachers, they're not too strict about the policy and don't worry too much. They make sure that the students are still learning. But other teachers are stricter about the phone policy because they focus more on the

student's attention to their learning." Anonymous, grade 8.

"Most teachers at our school are following this policy, there are some that follow it too strictly. Some teachers threaten to use the cellphone hotel if we don't behave." Edwin Zhou, grade 11.

Do you feel there are any benefits or drawbacks in your personal learning with this policy?

"I don't use my phone in class that much, so I don't really think it makes a huge impact. But I'd still like to have it with me." Joey Nelson, grade 9.

"I'm not a big phone user so I don't see many drawbacks or anything, but you shouldn't have your phone restricted for education, we should be able to use our phone in class wisely." Edwin Zhou, grade 11.

How does this policy differ from previous years?

"This hasn't really changed much from last year. It's [rules and regulations] just as the same as last year, teachers are more focused on it this year." Tommy Chen, grade 10.

"This policy doesn't really differ from elementary school since my school never allowed phones, so I had to put it in a case or keep my phone at my house or in my bag. With high school, I have more freedom with my phone and the teachers will allow me to use it for research purposes. So overall I would say the policy doesn't differ much from elementary." Anonymous, grade 8.

Do you understand why this policy



was implemented?

“I can understand because I do know some students at Britannia who don’t use their phone properly during school times and also across the whole school district, but I feel like the students that do use their phones appropriately outweigh the students that don’t use their phones appropriately so why would you implement this to everyone.” Edwin Zhou, grade 11.

“Yes. There was a lot of research about students and mental health to help focus” Angela Ly, grade 12.

Do you support this policy?

“I wouldn’t say I don’t support the rule because it makes students be more secretive about themselves and their phones and students would break the rule more easily because a lot of students have screen attachments. But the rule also disciplines students and helps them focus more on work than a screen.” Anonymous, grade 8.

“I mean I haven’t gotten my phone taken away yet, so I guess?” Joey Nelson, grade 9.

“Kind of.” Tommy Chen, grade 10.

“No. I don’t support this because it’s too harsh and it’s targeting everyone

rather than ones that are violating the rule and punishing the ones that aren’t.” Edwin Zhou, grade 11.

“In some ways yes.” Angela Ly, grade 12.

The students’ opinions on the cell-phone policy show mixed perspectives, with most supporting its purpose but questioning its implementation. While some students respect the structure, others feel it is restrictive and inconsistent across teachers. Most agree it hasn’t significantly impacted their learning but suggest the focus should shift to teaching responsible phone use rather than enforcing strict bans. Regardless of understanding the policy’s connection to mental health and attention, some believe it is applied more harshly than needed.

Once I had a clear understanding of how other students see this policy, I began to interview different teachers that teach different subjects to see how their subject affects how they follow the cell phone policy. The responses to the questions were all based on the subject each teacher taught.

What do you know about the new cell phone policy?

“I know they’ve [school board] told us that we don’t use the cellphone hotel anymore, and students are allowed

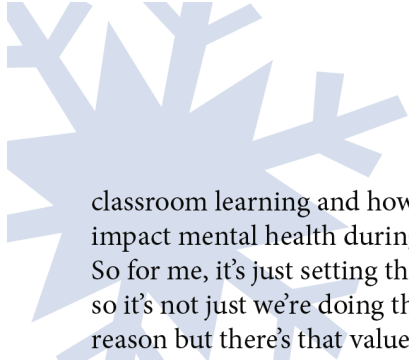
to have their phones on them but not during instructional time which includes FIT times (flexible instructional times). I feel like phones should be in bags because when you get notifications it’s very distracting, when it beeps or buzzes it can take away your focus. I think having it on your body is probably not good.” Ms. Sugar, mathematics; physics/IB physics.

“I know that it is a provincial wide policy, and our school began it last year so we’re a little bit ahead of the province. There are to be no phones during the school day and only during breaks.” Ms. Liu, grade 11 councilor.

How are you following this policy specifically for the subject you teach?

“To be honest my room hasn’t really changed from before when there wasn’t this policy, phones are still used, I try to get my students to use them as a tool as much as possible instead of just being on them playing games.” Mr. Crawford, woodworking.

“A lot of it is just being very clear about the policy at the beginning of each class, setting up the expectation and talking about it with the students explaining why it’s necessary in terms of how phones can be distractions in



classroom learning and how it can impact mental health during learning. So for me, it's just setting the reasons so it's not just we're doing this for no reason but there's that value behind it. And then reminding students at the beginning of each class when I start teaching to put phones away. For the most part, I feel like students to follow that. I'm very clear with my students about when phones can be out. In social studies that happens often because I will often ask students to research things on their phone, like historical information. So, it is used in my class almost every class. Kids are asked to look something up on their phone." Ms. Govorchin, social studies/IB history.

Do you feel like students are cooperating with this?

"I think that students are really reasonable people and that if you take them aside one on one and ask not in front of everyone else, not embarrass them, they've got their own reasons on why they're on their phones. Once it's pointed out that these are the rules and how we can support you, I think in general yes." Ms. Liu, grade 11 Counselor.

"From my experience in my classroom this year, I haven't had a student pushed back on me in terms of putting their phone away when I asked them to put it away. Even if during class, if I see a student who ends up taking their phone out to check something when they're not supposed to, if I address that student and say, 'hey, can you put your phone away?' I haven't had an experience where a kid has like straight up told me, 'no, I'm not going to do that.' They're like, 'ohh, yeah, sorry.' And they'll put it away. So for me, with my classes, the three classes I have right now, I haven't had any issue

with redirecting phones away and it's been pretty respectful for me at this point." Ms. Govorchin, social studies/IB history.

Do you notice any benefits or discrepancies in your students' learnings?

"There is a discrepancy between the policy and how it is enforced. Phones are a barrier to learning in a big way, because of the distraction piece, and it's so hard to get a student to focus for a proper period of time. I don't know if this policy has really changed that in general. I think it needs to be a cultural shift." Ms. Sugar, mathematics; physics/IB physics.

"I think it helps students stay more focused in class in terms of hearing what's going on because their attention is not directed towards their screen. It helps them to have their attention towards the lesson and what I'm saying and also what their classmates are saying or any examples I'm showing. So, I think it has a positive impact on learning overall. And I think it's also helpful for students to think about regulating their phone use outside of just their learning and seeing how it's helpful in terms of not being so reliant on staring at a screen. It's a habit that develops over time, and it takes time to break that habit too." Ms. Govorchin, social studies/IB history.

How does this differ from previous years?

"This doesn't differ much from previous years. To me it doesn't feel different this year compared to other years. How I follow the rules are similar to previous years and my classroom basically looks the same in terms of phone usage and regulation." Mr. Crawford, Woodworking.

"Last year we kind of piloted a bit of a cell phone policy that wasn't coming so much from like a district level, but it was more just initiated through our teaching staff, and it was almost identical to what we have this year. So, we almost kind of started running in maybe a little less formally last year, but we did start to kind of play with that idea of having a cell phone policy. But prior to that it really was much more of teacher-based policies. There wasn't a consistent policy across classrooms. And I think that was identified and most teachers would agree that that was challenging because students were kind of confused by different expectations and different classrooms and not understanding how that transferred from one class to the next." Ms. Govorchin, social studies/IB history.

Gathering the teachers' opinions on the cellphone policy helped me uncover another side of point of views, not from the students directly affected by the policy but also from the teachers following this policy. Their responses revealed differences between how the policy is applied in their classrooms with the subject they teach. This perspective highlights how the policy depends not just on its implementation but also on the teacher, students, and subject.

Interviewing multiple people on the cellphone policy helped me reveal more perspectives and views on its implementation. It points out how teachers, students, and even the same policy can look different depending on the class and the person enforcing it. Overall, while the policy aims to improve focus and mental health, its effects are based on how it's applied, uncovering that the reality of the policy isn't as different from past years as anticipated.

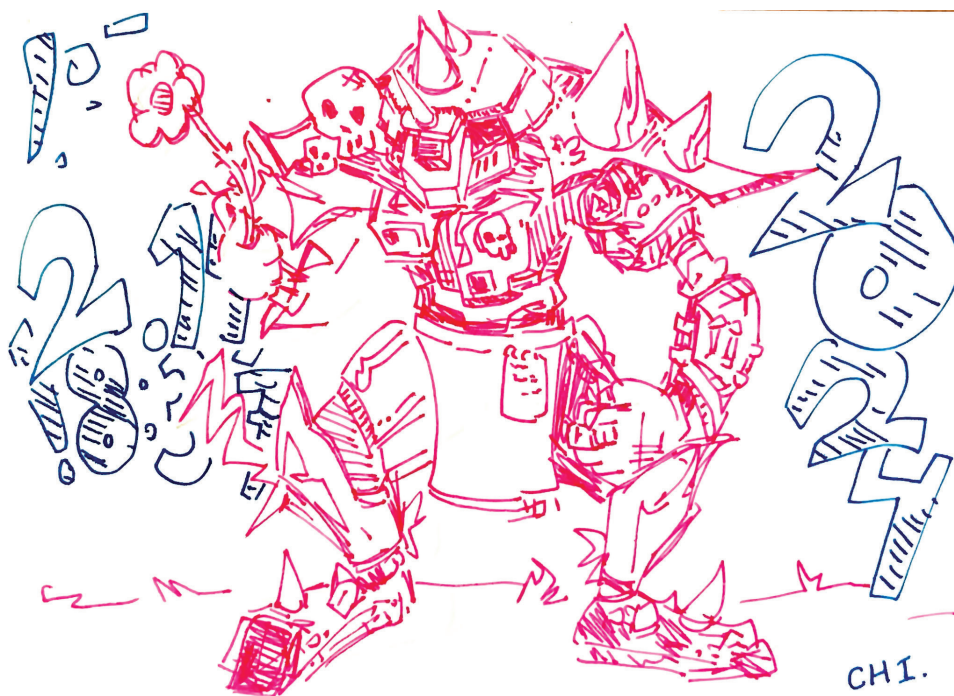
Britannia Art Work



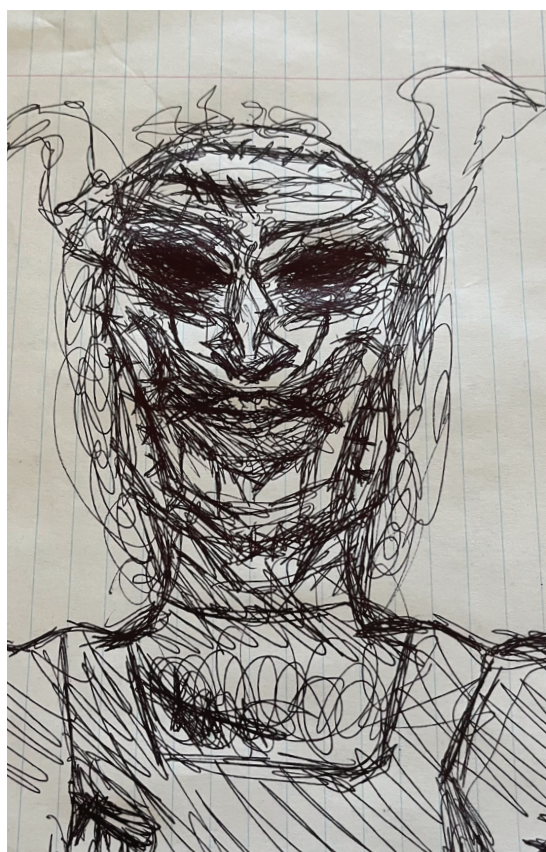
Tikki Wilkinson (12)



Linda Phan (12)



Jenny Chi (12)



An Pham (12)



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Jemma Wilkinson (9)



Tikki Wilkinson (12)

