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Sudoku

1 2 7 5
8 3
6 7

5 4 9
7 2
9 5 1

2 3 4
8 2

4 9 3
1. NOTE: Please make sure to use best practices when reading and sharing Paydirt to minimize the spread of COVID. Please keep in mind that articles are written several days before publishing.

2. COVID-19 vaccines are being administered much more frequently. Employees, faculty, and other staff are high up on the priority list, including students who fill these positions. Sign up at https://cvvaccine.nmhealth.org.

3. Fall 2021 classes are slated to be primarily in-person with options online for those that desire it.

4. With the help of student governments from across New Mexico colleges, including our own, Santa Fe is now granting at least $50 million to the Lottery Scholarship, up from the proposed $0.

5. Spring Fling is set to begin April 16th, and has 17 planned events, with more possible depending on Socorro COVID map color.

6. There will be a position set to test Chartwells food randomly and anonymously, and then report back to ensure good food and service from the company.

7. Clubs can meet in person! Up to 20 people can meet max whilst following normal COVID regulations. Make sure to fill out a pandemic event form before doing so, but it is only required once.

8. Several SGA elections are coming up. Watch your emails for information from the Chief Justice and others about applying and/or voting.
Here and There: A Scattered Spring Break

As we all know, the plans regarding this year’s Spring Break have been a bit… well, unwelcome to our ears. Many of us (let’s face it, more like all of us) really could have used that week-long break from school three-quarters of the way through the year, at least just to have some time to catch up on homework, scholarship entries, or studying, if not to just kick back and unwind. Since we’re only getting bits and pieces of this break here and there in the form of two Fridays and a Thursday off over the course of three months, we decided to interview students to see what they normally like to do to unwind in the spring, as well as what they would have done with a week-long break.

Personally, I wish we had a spring break; I really do. I think we’re all at that point where we just need some time to relax and recover from school; I also believe that it’s especially important to allow students to spend time visiting their family and friends during the lockdown. If we’d had a break, I for sure would have gone back to visit mine.”

Since then, Brightburn Academy has changed quite a bit; since we were closed to the public from mid-March until July, I took two weeks to change up the deliverance method. For each of those months where we were closed, I discounted everyone’s tuition and shifted most of the classes to Zoom. Unfortunately, a couple of our group dancing (called ceili, pronounced kay-lee) classes had to completely stop, due to the nature of intricate group dancing and the necessary physical contact involved in ceili dances.

Starting the second month of the closure, I offered weekly private lessons to everyone, the length of which was determined by the number of class hours which they were paying for. It was difficult, especially since teaching four and five year olds the difference between their right and left feet was made even more difficult on Zoom with the movements mirrored; but we stuck with it and by the time we opened back up to the in-person classes in July, some elements of distance dancing were made easier, while other factors of running the studio were made more difficult.

The biggest challenge was correctly interpreting what we could and could not do according to Governor Grisham’s guidelines; They had many stipulations, and we had to figure out how to perform and look at how much better things are now. People have been able to open their businesses back up to the public, celebrations are no longer some illegal college party laced with the fear of arrest by police, and we’re all improving as a community, as a nation, as a world, to flatten the curve, and look at how much better things are now. People have been able to open their businesses back up to the public, celebrations are no longer some illegal college party laced with the fear of arrest by police, and we’re all improving as a result. So until next time, I’ve been Isaiah Padilla, Paydirt journalist, signing off.

So there you have it, folks. Celebrations took a pretty heavy hit last year, but since then we’ve been able to pull together as a community, as a nation, as a world, to flatten the curve, and look at how much better things are now. People have been able to open their businesses back up to the public, celebrations are no longer some illegal college party laced with the fear of arrest by police, and we’re all improving as a result. So until next time, I’ve been Isaiah Padilla, Paydirt journalist, signing off.

- Isaiah Padilla
A One Year Anniversary: Looking at Public Celebrations During COVID-19

Ever since the World Health Organization (WHO) first declared coronavirus to be a global pandemic near the beginning of 2020, our lives have been eyewitnesses to the ebb and flow of countless restrictions made, undone, and then reinstated with heavier consequences. One thing that we’ve all missed greatly, perhaps the most, is celebrating with other people, regardless of the amount of persons.

Let’s start back at the beginning, or close to it, anyways: On March 11, 2020, when the WHO declared the pandemic, Americans were merely six days away from one of the more popular global holidays: St. Patrick’s Day. The first of many celebrations to suffer from the necessity of abiding by COVID-safe protocols, the 2020 St. Patrick’s Day celebration was… well, disastrous, in multiple ways.

The most obvious and literal disaster of that day was the number of people who, Irish ancestry or not, went out and partied hard (let’s be honest, on St. Patrick’s Day, no one could care less). Most of our performances with some of the other people, regardless of the amount of persons.

The other disaster that occurred that day was on the bureaucratic scale: the American government was now confronted by the fact that they needed to strictly enforce the restrictions placed so recently upon their citizens. While the celebration may have proven just how drastically the United States needed to react to the pandemic, it also threw the individual state governments into a whirl of confusion.

Celebrations were no different when it came to COVID-19. We all can remember the surge of already-countless articles that accompanied every holiday, where private parties were shut down, people were arrested, protests were made, and on so and on and so forth. St. Pat’s may not have experienced the greatest rise in case count, but it certainly had the greatest impact on society, as it hit right in the early days of coronavirus, when the vaccine was the last thing on most people’s minds. That meant it led to quite a bit of confusion over what could and could not be done under the various restrictions imposed.

Now, a year later, St. Patrick’s Day has recently come and gone once more, albeit with a wildly different impact on society this time. To dive deeper into the differences between this year and last, we interviewed Katherine Padilla, a Rio Rancho-based business owner who runs the Brightburn Academy of Irish Dance. She had this to say on the events surrounding St. Pat’s last year:

“I remember thinking that we would have just been back in a few days; Most of our performances with some of the pubs and whatnot were still on, with the exception of the retirement homes who had called in three or four days prior to the lockdown being called. Then kids started leaving class that Thursday as their parents pulled them out as the Covid scare started to ramp up. I still intended to keep the studio open, until the sports facility where we’re located closed that weekend.”

We had so many performances scheduled for that St. Patrick’s Day celebration and it was going to be one of our busiest months ever. In the span of one week, we came down to a single performance at a pub called O’Neill’s, a spot we’ve been performing at for at least five to six years now. I can

Mya Martinez-Metzgar:
“Hello, my name is Mya Martinez-Metzgar and I am majoring in Biomedical Sciences in the biology option with an emphasis on biomaterials. Lately I’ve been more aware of how important it is to take care of my mental health, and a large part of that, for me, has manifested in eating properly, exercising daily, and taking care of myself. It’s super easy here at Tech to get bogged down by all the coursework going on, and as a part of the Student Government Association I’ve got a number of other responsibilities to take care of on top of that.

So, when I’m not studying for the next Calculus II exam or playing with my puppy Pancho, I’m at the gym working out or running. Other times, I’ll go hiking or just go grab some coffee with my friends, walking around and catching up.

As I mentioned earlier, I serve the SGA as an elected Justice, and that led to me witnessing some of the harsher decisions being made last year, including the one regarding Spring Break. I was initially concerned for the student body over it, but I also realized just how important it is to remember that we all needed a break, even the faculty members who made the decision; We’re all burnt out and in need of a rest, especially given how hard we all work, but I personally am glad that, while we didn’t get a full week, we still got a few extra days off here and there. Anything is better than nothing.

Now, if we did get the week off, I totally would have planned some big trip or activity with my friends. We probably would have gone hiking or camping, maybe both, somewhere in New Mexico. But seeing as how we don’t, I’m just glad that we get some time off. If the break had been longer than a few days here and there, I probably would have just stayed here and just caught up on work.”

- Isaiah Padilla

Ethan Oesch:
“Hey there, my name is Ethan Oesch and I am a sophomore majoring in Mechanical Engineering. Since quarantine started I’ve mostly been spending my time in between homework, classes, and my duties as a Residential Assistant playing video games like Dark Souls and Sea of Thieves with my friends.

Last year, I was one of the small collection of students taking nineteen credit hours on top of a part-time research assistant position; when Spring Break rolled around then, it was announced that instead of having just one week, we would have two. I was all, praise be to Covid! It had given me the sweet relief I needed to relax and get caught up on work. Then I walked into recitation Monday night the week before, and my TA asked if we’d heard that the break was extended to three weeks. That stopped me from celebrating; We all know the rest from there.

So compared to that, I’m kinda fine with not getting a huge break now; For me I’m just glad that we get some time off. If the break had been longer than a few days here and there, I probably would have just stayed here and just caught up on work.”

- Mya Martinez-Metzgar

in the International Genetically Engineered Machine (iGEM) competition, an event which pits different teams of people together in a summer-long project focused on pushing the limits of synthetic biology. If I can put a team of undergrads majoring in anything related to Biology together, we would be the only currently operating NM-based team to compete with other teams across the globe. If you’re interested, shoot me an email at mya.martinez-metzgar@student.nmt.edu.”

- Ethan Oesch
Jewish Holidays

Jewish holidays are an enigma for most. If you're not specifically Jewish, it may not seem like useful information to carry around. But, Jewish holidays can be rich with interesting culture and knowledge.

Passover, or Pesach ("pe-sakh"), is a week-long holiday that commemorates the liberation of Israelites from Egyptian rule. It is one of the most significant events in Jewish history.

Passover is celebrated during the month of Nisan. Don't remember where Nisan falls in the calendar? That's because there is a specific Hebrew calendar that is based upon the lunisolar calendar. Nisan marks the beginning of Spring, is the month of ripening barley and is considered the "first month" in the Torah. Passover begins the 15th day of Nisan and lasts until the 22nd day.

Passover celebrates the Exodus of the Israelites from Egyptian slavery. According to the story, God plagued the Egyptians with ten different disasters in order to force the Egyptians to let the Children of Israel go. The Egyptians with ten different disasters in order to force the Egyptians to let the Children of Israel go. The Egyptians had 9 other reminders to set us free. Passover begins the 15th day of Nisan and lasts until the 22nd day.

In order to avoid the death of their firstborn sons, Moshe (Moses) was instructed to tell every Israelite to sacrifice a lamb and to smear its blood on the door. The Angel of Death, known as Malak Ha-mashhit, would pass over the doors with the lamb's blood, sparing the children inside. This lamb that is sacrificed is known as the paschal lamb.

After the night of the final plague, the Pharaoh finally decided to set the Israelites free. But, just as the Israelites began to rejoice, the Pharaoh changed his mind and wanted them back as slaves. The Israelites fled Egypt as quickly as they could and finally came to the Red Sea. God then parted the sea for Moshe and he led them into the desert.

Jewish holidays are rife with traditions and rules that are followed for the celebrations. Leading up to the holiday, a ritual cleansing of the house takes place. One of the big aspects of this cleansing ritual is getting rid of all chametz ("haa-metz"). Chametz is food that is leavened or mixed with yeast. Additionally, the entire book is cyclical. The first sentence is actually the completion of the last sentence. Joyce was heavily influenced by Giambattista Vico, who wrote about the cyclic nature of civilizations in his 1725 opus, Scienza Nuova.

When Joyce was asked about the book's purpose in an interview, he said "If the whole universe was to be destroyed and only Finnegans Wake survived, then the goal is that the whole universe could be reconstructed out of it".

That's right, Finnegans Wake was an attempt to compress all of the past and future into one volume. It's the output of a linguistic shredder, a clever braid of cultural strands that ultimately captures the essence of existence… or something like that.

That might sound a little grand to the more pragmatic, but it's not actually that different from what we do here at NMT. FW, Science, and Math are all ontologies, a dense web of concepts that seek to represent what is real within a certain domain. The only difference is scope.

Mathematics is a purely deductive system. Starting from a finite set of axioms, every single equation you see is a logical consequence. This has a huge advantage, math is the only epistemic system that grants conclusivity. Any theorem you see is guaranteed to be true. However, there is a tradeoff. Mathematics has a tiny scope, it can't say anything about the reality outside the system. Of course, it's inspired by reality, but the second you step out-of-bounds you lose the guarantees that make math so great.

Science is a little bigger. It loosens the threshold of truth by allowing inductive reasoning. This buys the ability to make statements about a much larger class of phenomena. However, these statements can never be fully proven.

There will always be statistical uncertainty, bias, and the possibility of an unseen counter-example, but the process of peer review largely takes care of that. Scientific knowledge converges to truth, which is good enough to make vaccines and spacecraft. Science is so profound because it's the sweet spot of truth and scope, but we can (and should) go farther. Science will never be able to capture the essence of love and suffering and all the other elusive concepts that make us human.

Enter Humanities. A piece of art can't say anything precise, and is seldom about anything concretely true. However, it's the only system we have to articulate the messy and nebulous ideas that describe human culture. So art, music, and literature are not just for entertainment, they are ontologies with the largest scope. In the end, Scientists and Artists stand on the same spectrum. We just care about different phenomena.

So if the precise (but miopic) Mathematics is on one extremum, then Finnegans Wake is on the other. It is 600 pages of vague, ambiguous metaphor. But that's the necessary cost for making the plot "Everything". Each phrase must be bent to cover surfaces and essences it was never meant to. The result is a hopelessly complicated network of words, one that only one man will ever understand in its totality.

Fun Facts:

- The Polish Institute of Physics analyzed works of classic literature and found that the FW’s sentence structure is a perfect multifractal, barring truncation error (fractals are supposed to be infinite, and books aren’t)
- DB Weiss, creator of the Game of Thrones HBO series, has a masters in Irish Lit. and wrote his thesis on FW.
- The word ‘quark’ (the elementary particle) was derived from FW: “Three quarks for Muster Mark!”
- There are 3 quarks to a proton, so fair enough...

- Adrian Salustri
After some thought, I've concluded that FW is the most interesting string of symbols ever assembled, so let's start digging.

The best place to start is the title. Finnegans Wake borrows from an old Irish folk song of the same name. The song is a comedy about a bricklayer named Finnegann who got drunk and falls off a wall and dies. The book (in one interpretation) is the contents of Finn's mind as he slowly dies on the ground.

With that in mind, the writing style makes a little more sense. The frenetic thoughts of a dying man don't need to be coherent, and probably won't. A line approach is to read the passage aloud in an Irish accent and enjoy the music.

But, still, it is far from meaningless poetry. In fact, every single sentence has 2+ meanings. Look closely at some of the individual words. The whole passage is overflowing with portmanteau and double entendre. FW is basically 600 pages of cryptic puns, complex puzzles, and esoteric references. It took Joyce 17 years to craft (dying just after its publication) so it is certainly not a stream of random.

But it's not just a collection of puns and puzzles, either. While it might seem a bit far-fetched now, Joyce attempts to capture the totality of human experience. For example, the 3rd paragraph on the first page starts like this:

“The fall (bababadalgharaghtakamminararronquonnkonnbronnqn mernorr-nntwnnwoonhvnrvnnhovnranskawntoohohoodenen thurnukli...)

See that really big “word” in the parentheses? We call that a Thunder word. There are ten Thunder words distributed through the text, and each one is said to signal a phase transition in the narrative (whatever that means). They're all exactly 100 characters long, and are apparently cryptograms representing different ages of human civilization. This one represents the transition from the paleolithic to neolithic era (can you see it?).
School and Cannabis

Drugs are illegal. I would never use them. You would never use them. But with April and its infamous 20th day fast approaching, marijuana use may be on the rise.

So is it possible to succeed in college while maintaining a use of marijuana? Short answer, not really. The longer answer, it’s better than other substances college students like to consume.

Cannabis, better known by a slew of nicknames, is a psychoactive drug that comes from a family of plants called the Cannabaceae. Cannabaceae is a wide family, consisting of trees, erect herbs, and twining herbs. Cannabis, a genus within Cannabaceae, is an erect herb. There are three distinguishable species, Cannabis sativa, Cannabis indica, and Cannabis ruderalis. The plant has been used for recreational, industrial, and health purposes.

Cannabis is psychoactive due to a cannabinoid called tetrahydrocannabinol (C21 H30 O2) or for less of a mouthful, THC. THC, when smoked, enters the bloodstream and latches onto endocannabinoid receptors in the brain. It affects parts of the brain that are responsible for movement, thinking, pleasure, memory, and coordination.

Use of the cannabis plant as a recreational drug is dated as far back as 440 BCE. The Scythians, a nomadic group of Iranians, have been documented to place the seeds and flowers of the cannabis plant on smoldering coals to inhale. Herodotus, a Greek historian, stated in his records:

“The Scythians, as I said, take some of this hemp-seed, and, creeping under the felt coverings, throw it upon the red-hot stones; immediately it smokes, and gives out such a vapour as no Greek vapour-bath can exceed; the Scythians, delighted, shout for joy.”

Despite cannabis being labelled as a Schedule I drug by the US government, many states have moved to sell the drug for medical and even sometimes recreational purposes. New Mexico legalized the medical use of cannabis in 2007 and recently has pushed for recreational legalization as well.

The debate on whether or not cannabis is helpful or hindering in academia has gone on for years. Many personal anecdotes claiming that smoking cannabis got them through and helped them even improve in college. Yet, many scientific studies say that prolonged use of cannabis has, in the end, a negative impact. One study, conducted by Thompson et al., went as far as to claim that there is a direct correlation between heavy cannabis use and lower paying jobs, more personal debt, and poor performance in school.

Alcohol is a prevalent substance on most college campuses. Alcohol is oftentimes seen as a way to relax after big academic weeks but, it can lead to a multiplicity of negative effects, DUIs, and even death. So, why not just use cannabis instead? Cannabis can have a calming effect on the user, has virtually no chance of overdose and doesn’t lead to intense hangovers the day after. But, just because the THC substance can seem to be more enticing, that doesn’t mean it is without fault. Cannabis can lead to brain-fog the day after use, and can cause paranoia and anxiety when consumed.

Cannabis use in college students is on the rise, with 38% of students having consumed THC in some form within the last year (as of 2018). Some cite cannabis as a miracle drug, that can help drastically improve college life. It can help with anxiety, stress, and sleep. Since college can be full of stress, anxiety and very little sleep, cannabis may seem like a natural solution. Unfortunately, this seemed improvement is only with very moderate uses of the substance.

Heavy use of cannabis is a very different story. Researchers such as Thompson et al. cite that cannabis use can impair focus and that:

“There’s the direct path that is actually impacting your ability to learn by affecting cognitive skills, and the other is that the environment around you is just incompatible with academic success. It affects your ability to be responsible and attend to your workday.”

Whether you use it or not, make sure to always consume substances with integrity and with a sense of responsibility.

-Alexandra Sartori