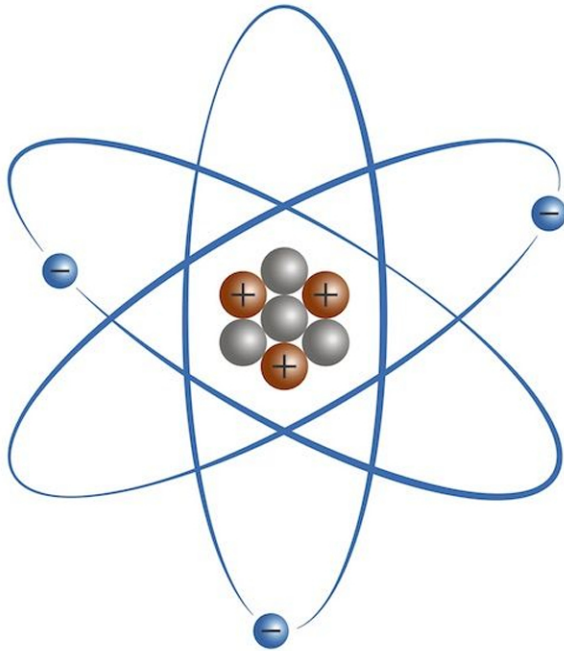


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WIĘCEJ NIŻ SZKOŁA



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A Doberman, a Golden Retriever and a cat died and met God. God said to them, "Tell me why I should let you into heaven."

The Doberman said, "I'll protect you with my life."

God said, "You can sit at my right side."

The Golden Retriever said, "I will fetch your slippers and anything else you ask me to."

God said, "Then you can sit at my left side."

Finally, God looked at the cat and said, "And what will you do?"

The cat said, "Excuse me. I think you're sitting in my seat."





SALVADOR DALI

If you're looking for a way to get inspired by an extra-ordinary concept I you should come back to 20th century Western Europe where surrealism was born. This is the type of creating that represents dream scenes in which various colors are splashed all over the canvas . We can see fantasy creatures at different angles what can easily shock us or. It's just the matter of beauty, but some of them might be scary and strongly affect our mentality and cause problems with interpretation. Those are things that we have never seen before I we wouldn't dare even to imagine. It's like we were hallucinating.

Do you know what lucid dreaming is? Some of the painters were gifted by this special skill or were practising this technique. They were able to control what they're dreaming about and see their paintings before they were even painted. Sometimes during the sleep all of a sudden they saw a ready vision of the masterpiece. It's kind of like imagination exercise that everybody can learn.

On the other side, an artist can spend all day daydreaming I figuring out eccentric irrational or unique art.

The main idea of this cultural movement was to express hidden I deep feelings that we experience when our subconscious mind works. It was a clear revolution of the visual arts that impacted many other fields like literature, psychology and policy.

Let's meet Salvador Dali - a Spanish surrealist artist.

He was highly imaginative and his behaviour was extremely unusual. Once he said that his one painting was worth more than the whole collection of Picasso's. He came up with his own method of painting called paranoid-critical. I highly recommend "The Persistence of Memory", "The Burning Giraffe" and "Metamorphosis of Narcissus". On the final note I would like to cite the words of this famous artist "At the age of three I I wanted to be a female cook. At seven, Napoleon. After that my ambition just went on growing . I wanted to be Salvador Dali and nobody else."

(Aga Szydło)



4 SIMPLE STEPS TO A HEALTHIER LIFE STYLE



Diet

The most important element of a healthy lifestyle is a well-balanced diet that provides not only protein, fats and carbohydrates in sufficient quantities but also fiber, vitamins and minerals. Healthy eating also means eating 5 meals at regular intervals (every 3-4 hours). When composing meals, it is best to choose the least processed products, as they do not contain food additives that may adversely affect health.

Sleep length

An important element of a healthy lifestyle is the right amount of sleep, during which the body regenerates and the brain rests. Many epidemiological studies have shown that people who sleep about 6-8 hours a day are less likely to suffer from cardiovascular and nervous system diseases, as well as obesity. –

physical activity,

regular exercise - walking, cycling or, running - prevents the accumulation of body fat and overweight. During physical exercise, blood flows faster in the blood vessels, so that tissues are better supplied with blood and oxygen. In addition, there are secreted hormones of happiness - endorphins, serotonin, which improve the mood.

The use of stimulants,

Use of stimulants has a negative impact on health. Smoking generates a lot of free radicals, which damage cell tissue, speeds up the aging process and causes cancer. In turn, alcohol is more calorific than carbohydrates and proteins. Drinking alcohol, especially beer, to which we usually eat salty fingers, nuts or crisps, promotes overweight and obesity and hypertension

(Marta Jaskuła)



PLASTIC AND THE ENVIRONMENT

Why should we reduce plastic consumption?

Most things we use everyday are made of plastic. However, it is harmful to our health and pollutes the environment a lot. Scientists have calculated that if we don't change our habits, there will be more plastic in the oceans than fish. Researchers say that plastic particles circulate in each of us, which are taken in with water and food. Another problem is the consumption of plastic by water-living animals who confuse plastic with food. Many animals die later as a consequence.

It's not possible to completely opt out of plastic, but it's possible to limit or replace it with other raw materials. So how to reduce plastic consumption? For example:

- take a material bag for shopping,
- if you can buy food in glass containers, buy it,
- don't use disposable dishes and plastic cutlery,
- refuse to use plastic, disposable straws,
- choose fruit and vegetables that are 'loose' in the store instead of those in plastic packaging,
- if you want to buy take-out coffee, take your thermal mug - more and more café s offer discounts for bringing own packaging.



Only 30% of plastic waste is collected and recycled. The rest goes to the natural environment. According to UE data, currently around 150m tons of plastic is in the world's seas and oceans. Every minute the quantity of plastic that is in one garbage truck goes to the sea and ocean.

Greenpeace decided to check which company produces the most plastic garbage in the world. It turned out that Coca-Cola comes first, second - Nestle, third - Pepsico, fourth - Mondelez and fifth - Unilever.

Facts about plastic that may surprise you:

- the plastic bag was invented over 56 years ago,
- in 2015, 320 million tons of plastic were produced worldwide, which is more than the weight of all people on Earth; in twenty years this number may double;
- sea turtles eat plastic bags because, for them, they look like jellyfish; researchers find plastic in the bellies of fish, birds and mammals; according to research, plastic is found in organisms of 90% sea birds;
- 150 million tons of plastic floats in the oceans, which is the same as the world's tallest building- Burj Khalifa in Dubai;
- 80% of oceans' waste is garbage dumped ashore; how did they end up in the water? sea currents take plastic waste from the shores that man left there or which is stored in landfills near the shores;
- Coca-Cola - the world's largest producer of drinks in plastic bottles, produces 120 billion bottles a year; if they were stacked side by side, a chain 700 times longer than the equator would be created. [Martyna Mazurek]



Time Crystals Break The Continuity Of Time

In September 2016, a team of researchers from the University of Maryland announced that they had experimentally confirmed the existence of time crystals. And what is a time crystal you ask? They're crystals that break the continuity of time, and since March 2017 a completely new state of matter. First proposed by Nobel-Prize winning theoretical physicist Frank Wilczek back in 2012, time crystals are hypothetical structures that appear to have movement even at their lowest energy state. This ability violates a fundamental symmetry in physics called time-translation symmetry, but physicists have now demonstrated that it might actually be possible for time crystals to physically exist. If you still don't get it, than don't worry- nor did I. But I'll do everything within my abilities to help you understand it.

In 2012, Wilczek and a team of theoretical physicists at MIT suggested that it could be possible to add a fourth dimension - the movement of time - to a crystal, imbuing it with the ability to act as a kind of perpetual 'time-keeper', or clock.

In basic terms, Wilczek envisioned an object that could achieve everlasting movement by periodically moving and then returning to its original state over and over again in its lowest-energy state- known as its ground state.

As the energy of the ground state is known as the zero-point energy of a system, it means movement should theoretically be impossible- but perhaps not for time crystals.

Explains Bob Yirka on Phys.org.:

"It seemed reasonable to assume that the atoms in such a crystal could conceivably move or rotate and then return to their natural state naturally, continually, as crystals are wont to do as they seek a lowest energy state"

The idea was that a ring of ions inside the crystal could be made to move independently inside the crystal- like a mouse exploring the inside of a snake's stomach- but he couldn't figure out how to build such a thing. Within months, a separate team of physicists from Purdue University jumped in and said Wilczek's plan could work - they just needed better ion traps. An ion trap is a combination of electric or magnetic fields used to capture charged particles, often in a system isolated from an external environment. Ion traps have a number of scientific uses such as mass spectrometry, basic physics research, and controlling quantum states. In physics, "spatial symmetry" refers to the way a feature stays the same no matter which way you observe it. If you were to walk all the way around a sphere, it would look the same at each point in your journey. That's because it has continuous spatial symmetry. A cube, on the other hand, would look slightly different as you passed from one face to the next, but would look identical at each face. This means it "breaks" continuous spatial symmetry and instead has discrete spatial symmetry: you can only see the same thing from specific directions. That's the essence of a crystal: it breaks continuous spatial symmetry.

Symmetry also applies to laws of physics like gravity (you'd see an apple fall the same way no matter how you were watching it) and, importantly, time. The gears on a clock, for example, move continuously at any given rate as they spin on an axis of rotation, so they have a kind of continuous temporal symmetry. Just as a crystal breaks continuous spatial symmetry, a time crystal would break continuous temporal symmetry: its "gears" spin on an axis, but only with specific rates of rotation.

The University of Maryland scientists successfully created a time crystal by using very low temperatures, a magnetic field, and lasers to trap a ring of positively-charged ions. "If this combination is put together just right, then this ion ring will enter its lowest energy state, also known as a ground state," physicist Matt Lowry tells reporters:

"It ends up that this ion ring time crystal actually rotates while in its ground state."

A system in its ground state shouldn't be able to move, but time crystals do—in that symmetry-breaking way. Moving in a ground state means that the crystal could rotate forever without heating up or requiring additional energy — something the researchers say is an entirely "new phase of matter."

[adapted by Alek Knapowski on various internet sources]

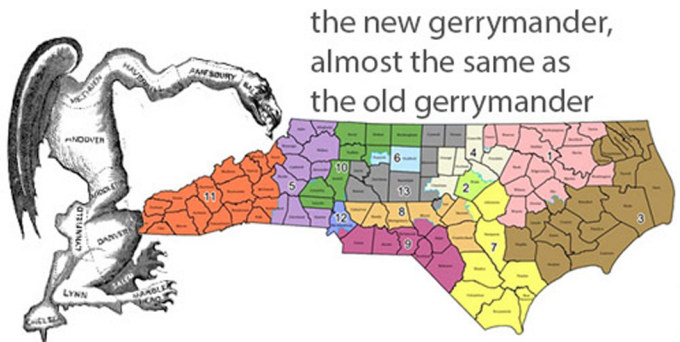
GERRYMANDERING AS SHORT AS POSSIBLE



In first-past-the-post election systems in countries such as the USA, gerrymandering has become one of the biggest problems. The first well-documented case of this formed around the former governor of Massachusetts, Elbridge Gerry, who enacted a law in 1812 defining new state senatorial districts. These were specifically created to consolidate the Federalist Party vote, resulting in disproportionate representation of Democratic-Republicans - effectively changing the outcome of the votes. Why? Let's visualize it on an example - say there are 20 districts in the rectangular state of X. This state has a peculiar dilemma - it's citizens fiercely fight each other over the taste of fruit, namely apples and oranges. Sadly, lovers of the forbidden fruit had to step down under the opposing majority. The governor, though, a zealous supporter of apples, decided to take the matter into his hands - after analyzing the turnout of the previous vote, he could roughly see which area votes for which fruit. Now, creating the voting districts, he aligned the boundary of District 1 to group as many apples with one less orange, granting apple win. District 2 was, in turn, made to end in a tie. District 3 however groups the rest of orange voters. Thanks to this, the election ends in a tie - 1 for apples, 1 for oranges, and one - tied. In such a way, the actual minority is equal with the majority, although the proportion is 6 (apples) to 14 (oranges).

//A more real-life example could be on the state of Arkansas, which is in majority republican. However, it is possible to create a rather interesting outcome - due to creating the districts in a way as in picture 3, democrats, consolidated in district 1, win one district, while normally they wouldn't win any.

The term of gerrymandering itself was coined due to the peculiar outline of one of the districts created by Elbridge. It was so absurd in size and geometry that it was thought to resemble a salamander. A satirical cartoon by Elkanah Tisdale that appeared in the Boston Gazette graphically transformed the districts into this fabulous animal, The Gerry-mander" [Gerry + salamander]. (Luke Magierowski)





COFFEE TO OUR RESCUE

Coffee is one of the most popular beverages in the world. It was first consumed in Ethiopia in the ninth century. Coffee contains caffeine, which stimulates our body. It has a positive effect on concentration and memory. Thanks to this, we can start each day with energy.

Scientists have found that coffee prevents some types of cancer. Drinking one cup of coffee a day reduces the risk of liver cancer. However, the effect of coffee is bad for our body. It removes the magnesium thanks to which we need to function. Coffee doesn't belong to healthy food. It isn't known what diseases it causes. Scientists have different opinions.

Coffee is the seeds of the coffee tree. The coffee tree is always green and has 40 species. Almost seven million tons of coffee are produced annually. The most popular types of coffee are Arabica and Robusta. The first is aromatic and delicate, while the other is bitter and strong.

The most expensive coffee variety is Kopi Luwak. It is obtained in an unusual way. Coffee is collected by small predatory mammals - civets. They eat whole fruit and then excrete it digested. Half a kilo of this coffee costs around 2500 zł.

About half a billion cups of coffee are drunk every year. You can buy ground coffee or coffee beans at a most any grocery store. There are also gourmet coffees to choose from. Businesses such as Starbucks Coffee, offering you the convenience of coffee any way you want it. On the store shelves you can find instant, coffee beans, ground or decaf coffees. The best choice for your health is coffee beans. Instant coffee is very popular. This is the fastest solution, because you only need to pour hot water on it. Decaf coffee isn't healthier than classic coffee. Scientists say drinking coffee with milk makes our digestion difficult.

Drinking three cups of coffee a day helps reduce the risk of developing Parkinson's disease by about 30 percent. Drinking this drink can also bring positive effects to people with allergies.

It is also recommended for people who want to lose a few kilos.

Due to the aroma of coffee, it is used in cosmetics. Especially works in body care preparations. Coffee extract is used in the production of body preparations for the summer.

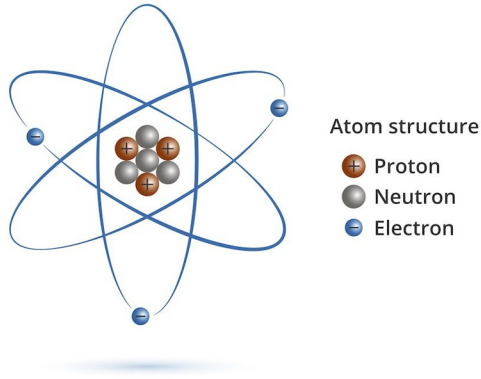
They improve the appearance of the skin. Caffeine is used in anti-aging cosmetics. Caffeine also stimulates hair growth.

(Julia Mikołajczyk)





WE ARE MADE OF NOTHING



Everyone knows that all items surrounding us are made of atoms. Even ancient thinker and traveler Democritus from Abdera knew that there is an end to materiality division and it ends on the smallest, indivisible particles. Later scientists discovered that those particles are atoms and they have atomic nucleus made of protons and neutrons - around it circulate electrons. But what's the rest of the atom made of? The answer is simple - nothing. Actually we can say that our body and other things are mostly made of nothing. You may be astonished right now but just imagine something. If protons and neutrons had diameter of 1cm, electrons would have a thickness of a hair or even smaller. The best part is that this size of the atom would be bigger than the length of 30 football pitches, and more than 99,99 % of it would be just filled with... nothing. But don't worry! In a single drop of water there are 10 thousand billion billions of hydrogen and oxygen atoms, so at least there are a few electrons and atomic nuclei which will recompense this nothingness.

The next question may be "How can we get energy in nuclear reactors if almost the whole atom is built of nothing?" It's simple to imagine if we use some numbers. In the reaction of the atomic nucleus splitting, the energy we get from one nucleus splitting is about 200 MeV, which equals to something around $3,2 \cdot 10^{-11}$ J. To imagine how much energy it is, you need to multiply it by the number of atoms in a sample. As I said earlier, one drop of water has a lot of them, so just think how many of them are in one kilogram of uranium. Surely a lot!

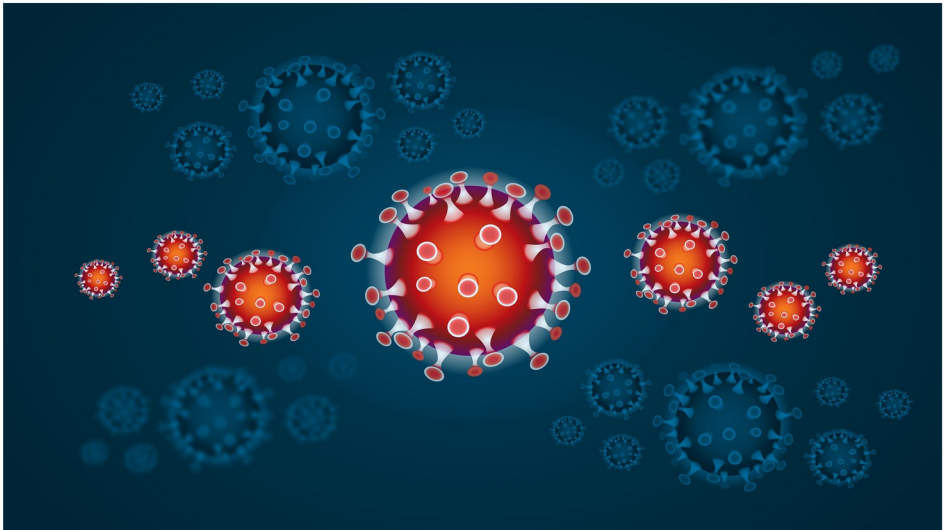
As you can see, even if we are made mostly of nothing (cause the sum of masses of electrons in all of our body cells equals to 20 grams), this "nothing" has a lot of energy and without it there wouldn't be anything.

(Dawid Mazur)

ABOUT COVID-19



In recent days we have been hearing about so-called coronavirus. But what is it, really? In media this term refers to virus SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2), a kind of virus that causes disease known as COVID-19. Common name is a reference to the family of viruses it belongs to, Coronaviridae (Coronaviruses) which are recognized by their characteristic “crown” made out of proteins that encircle them. COVID-19 is a disease that mainly affects respiratory tract, as the most often symptoms are dry cough and shortness of breath, accompanied by fever and overall fatigue.



In more severe cases other symptoms may include pneumonia and some organ failures, usually kidneys. Signs of the disease are usually seen in first 5 days, but sometimes can be hidden for 2 weeks. While the origin is unknown, most of the researches point out to coronaviruses found in bats, due to their close genetic similarities. Most of the cases come from mainland China (around 80 %), where it was first discovered in Wuhan. Virus transmission usually happens by human-to-human transmission via respiratory droplets (coughing and sneezing), but it can also infect bats and pangolins

{Mikołaj Lewczuk}

Treasures from second-hand bookshops



I am a huge fan of reading. Especially I adore books that conceal some history behind the covers, that has nothing to do with the contents of the book. For example, I am in the possession of an English copy of "Green Mile" by Stephen King. Nothing special, some might say. But what I found inside, was a dedication. It turned out that the book was a wedding gift for some British couple called Claire and Frank. They received it from person called Gill, who read this while travelling through Thailand and got a lot of strange looks for being in floods of tears throughout. Interesting? For me it is. I like to imagine that Gill is a traveler with a lot of adventures and Claire and Frank are still in love. It is nice to think that this book has been a witness of someone's most memorable moments of life.

There are also many interesting stories behind biographies. I am now in the middle of "Miłostki królewskie" (Casimir Roy de Pologne) - a collection of stories from the king's Jan Kazimierz Waza court. The author, mysterious D.L.V.R., was years later exposed as Frenchman Rousseau de la Valette, although it is still not certain. He remains mysterious for today's researchers. D.L.V.R. introduces himself as Kazimierz's courtier, deeply in love with a French marquise at that time. He is always in the middle of the action, helpful to the king's love interests. So, what are the advantages of getting books from second-hand bookshops? Except for plenty of fascinating stories to read about, we can also get involved in exploring histories of their authors and process of creation. Human's life is always the most incredible journey and authors often have worth knowing experiences.

There is one more thing, following the zero-waste popularity, it is earth-friendly to buy books that have been used before, instead of the new ones. Second-hand literature can also be much more affordable than the new books in popular book stores. Last, but not least, in second-hand book stores people often find true gems, which wouldn't be found in a regular store. I'd like to encourage you to go ahead and dive into multiple world of second-hand bookshops.

(Hania Stefanska)

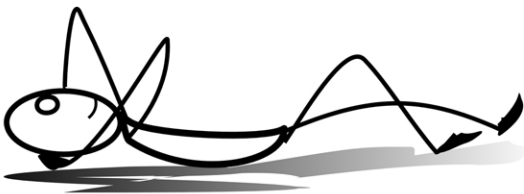


Top 10 Emergency Stress-Stopppers

Emergency stress stoppers are actions to help you defuse stress in the moment. You may need different stress stoppers for different situations, and sometimes it helps to combine them. Here are some ideas:

1. Count to 10 before you speak or react.
2. Take a few slow, deep breaths until you feel your body un-clench a bit.
3. Go for a walk, even if it's just to the restroom and back. It can help break the tension and give you a chance to think things through.
4. Try a quick meditation or prayer to get some perspective.
5. If it's not urgent, sleep on it and respond tomorrow. This works especially well for stressful emails and social media trolls.
6. Walk away from the situation for a while, and handle it later once things have calmed down.
7. Break down big problems into smaller parts. Take one step at a time, instead of trying to tackle everything at once.
8. Turn on some chill music or an inspirational podcast to help you deal with road rage.
9. Take a break to pet the dog, hug a loved one or do something to help someone else.
10. Work out or do something active. Exercise is a great antidote for stress.

<https://www.heart.org/en/healthy-living/healthy-lifestyle/stress-management/3-tips-to-manage-stress>



INTERNATIONAL WOMEN'S DAY



The original Women's Day comes from Matronalia, which was celebrated in the ancient Rome. It was a holiday in the first week of March, related to the beginning of a new year. On this occasion husbands gave their wives gifts and fulfilled their wishes.

It is a very important day which is celebrated on the 8th of March every year. The earliest modern Women's Day was called "National Women's Day". This day was held on the 28th of February 1909 in New York City, organized by the Socialist Party of America.

Women's Day was popular in the 1970s where men would give flowers to the women. The flowers that were usually given were carnations, but later they became tulips. Today Women's Day is an official holiday in many countries of the world.

[Anastazja Kokina]

INTERNATIONAL
WOMEN'S DAY

08 MARCH

