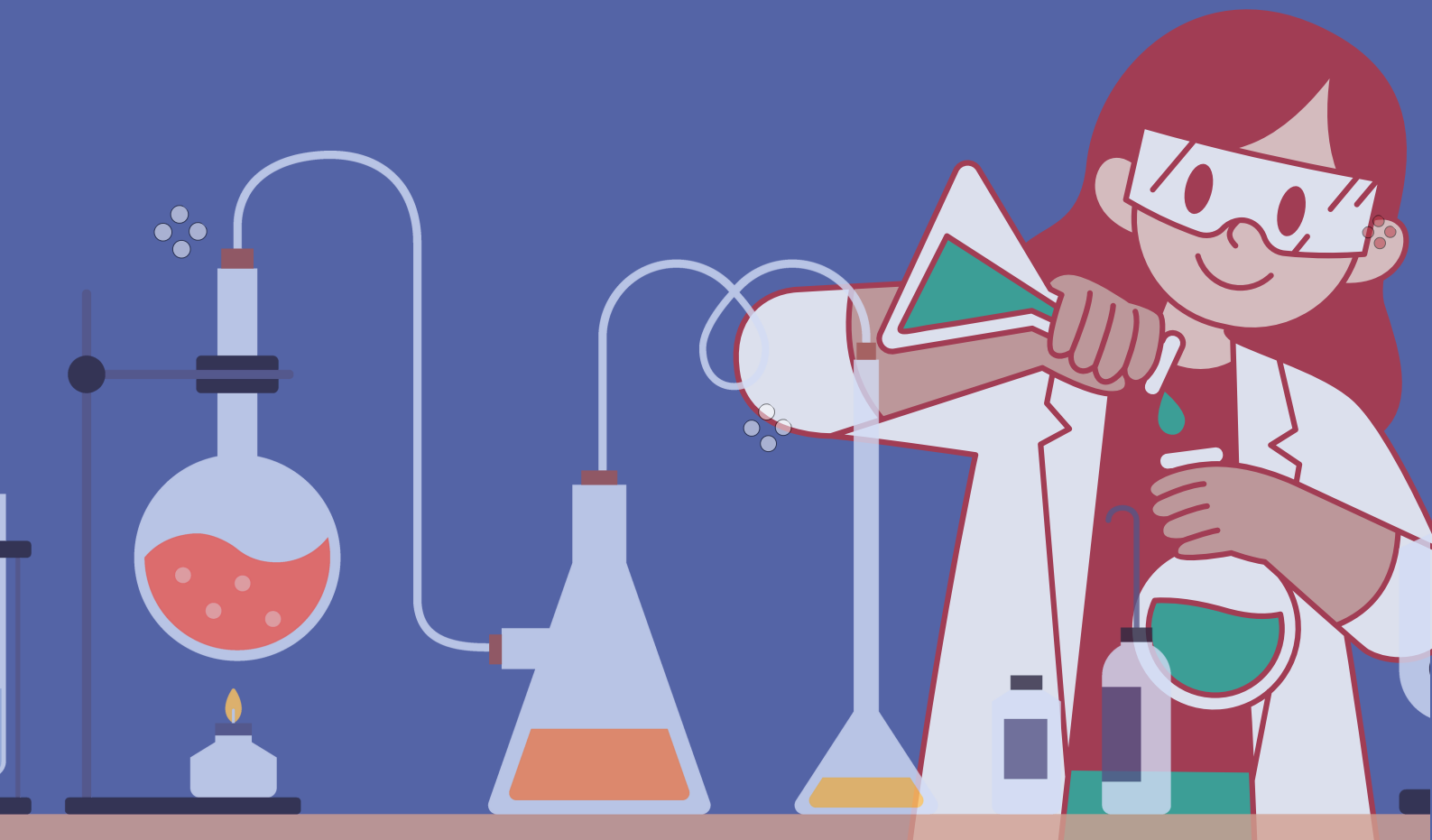


2023-2-BG01-KA210-SCH-000180168

Educational CONTENT FOR STUDENTS



**FEMALE STEAM
MINDSET**
GIRLS IN MEN'S
WORLD



Co-funded by
the European Union

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WELCOME MESSAGE



Welcome, young explorers!

Imagine stepping into a world where the things you love—like sports, music, and drawing—combine with science, math, and technology to create something truly extraordinary! Picture yourself designing robots that can dance to your favorite beats, creating art that comes to life through photography, and even using music to solve complex engineering puzzles. Here, the boundaries between subjects disappear, and you become the creator of something new and exciting.

In this world, you're not just here to sit and learn. You're about to start adventures that will challenge your mind, spark your creativity, and help you discover talents you didn't even know you had. Each day will bring a new surprise—whether you're testing the power of your breath as an athlete, building sustainable cities inspired by nature, or exploring how the rhythm of music connects with science and math in ways you never thought possible.

'So, gear up! Get ready to step out of your comfort zone, work with new tools, and start projects that will stretch your imagination and challenge your thinking.

Are you ready for this adventure? Let's get started! The world of discovery and creativity is waiting for you, and you're about to make your mark.

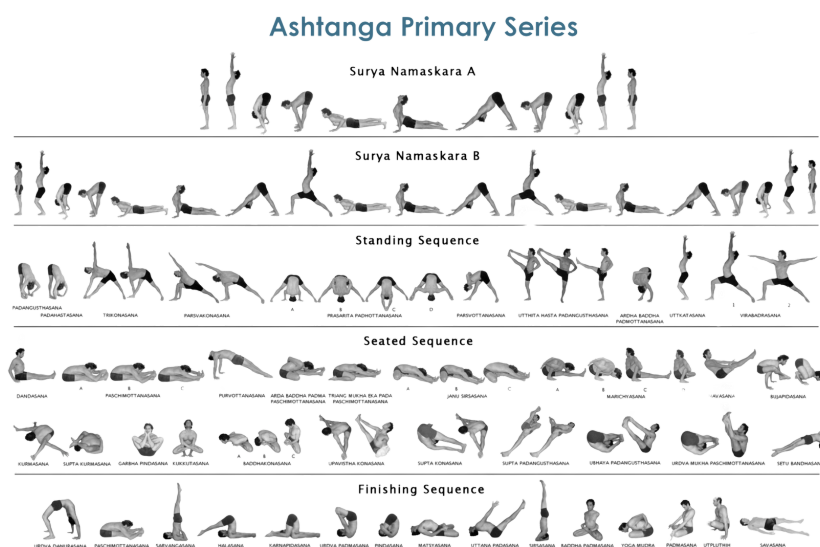


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BACK



MULTIMEDIA ARTS AND SPORTS - VICTORIOUS BREATH



Source: <https://www.yogamoves.nl/news-blog/primary-series-ashtanga>

Do you know this practice? It's called Ashtanga Yoga, a traditional style of yoga that's practised all over the world. It's unique because it combines movement with breath, creating a powerful way to connect the body and mind.

The creators of Ashtanga Yoga believed that syncing your breath with specific movements could strengthen both your body and mind. They used ancient techniques and practices to develop this style of yoga, which has been passed down for generations. However, the main reason for developing Ashtanga Yoga was to help people find balance and focus, especially during stress or difficulty.

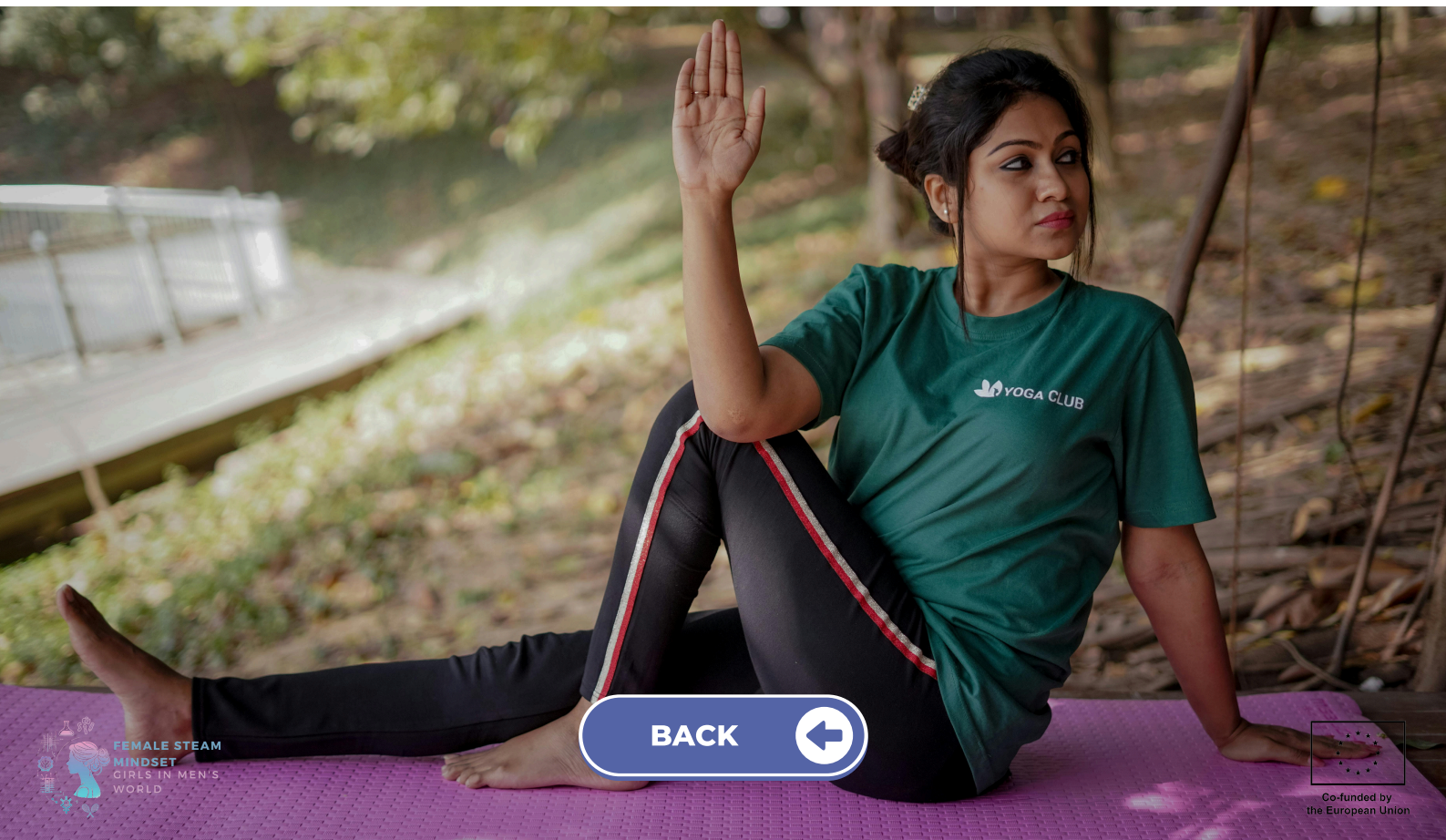
In the past, yogis combined their knowledge of breath and movement to take physical and mental wellness to a new level. Today, Ashtanga Yoga is practised worldwide, helping people improve their health and well-being. The practice isn't just about moving your body—it's about using your breath to guide your movements, calm your mind, and find inner peace.



MULTIMEDIA ARTS AND SPORTS VICTORIOUS BREATH

One of the critical parts of Ashtanga Yoga is Ujjayi Pranayama, or the "victorious breath." This unique breathing technique helps you control your breath, making it slower and more profound. As you practise **Ujjayi Pranayama**, you create a gentle, soothing sound in your throat, which helps you focus and stay calm. This breathing technique is like the foundation of Ashtanga Yoga, just like the foundation of a building. It supports everything you do in practice.

When you do Ashtanga Yoga, you'll notice that your breath changes as you move. During more challenging poses, your breath might become faster as your body works harder to supply your muscles with oxygen. This is similar to how your heart rate increases during exercise to pump more oxygen-rich blood. As you get better at controlling your breath, you'll also improve your lung capacity and strengthen your respiratory muscles, which can help you in sports and other physical activities.



BACK



MULTIMEDIA ARTS AND SPORTS - VICTORIOUS BREATH

Imagine you're on a journey with Ashtanga Yoga. Your breath guides you through each step, helping you stay balanced and strong. Just like filmmakers and photographers work together to create compelling stories, your breath and movements work together in Ashtanga Yoga to build a healthier, more focused you.

So, next time you feel stressed or need to focus, remember how your breath can help. By practising Ashtanga Yoga, you're not just moving your body—you're learning to use your breath to improve your mind and body, just like the yogis intended.

FUN FACT ON THE TOPIC

Did you know? On average, a person takes about 20,000 breaths each day! That's roughly 14,400 litres of air inhaled and exhaled every day. Despite how essential breathing is, most of us only use about 50% of our lung capacity during regular, shallow breathing. By practising deep breathing techniques, like those in yoga or meditation, you can tap into the full capacity of your lungs, improving oxygen flow throughout your body and even boosting your energy levels.



ROBOTICS AND FINE ART - THE ART OF OPTICAL ILLUSIONS



What do you see in that picture? Is it a vase or two faces?

Don't worry, both are correct. Your perception may shift between the two interpretations depending on how you focus on the image.

This is an example of an optical illusion known as the "Rubin's Vase".

Optical illusions are images that trick our eyes into seeing something that isn't really there, or that looks different from how it is.



Source: <https://oceanswebsite.com/Amesroom1.html>

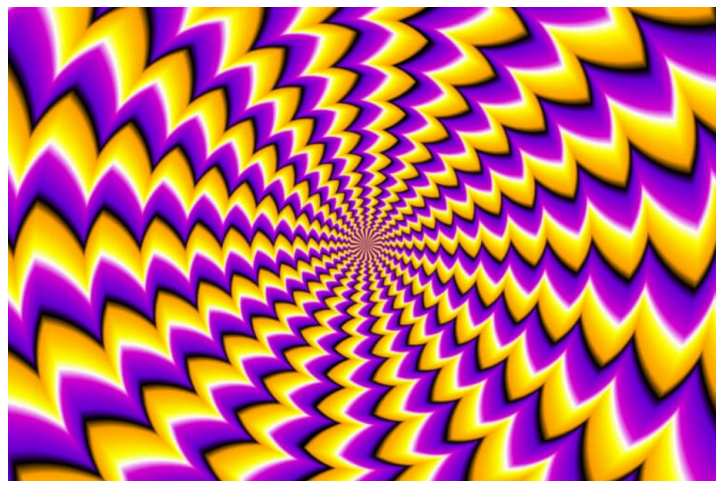


ROBOTICS AND FINE ART - THE ART OF OPTICAL ILLUSIONS

Another very popular example is "Ames Room". It's a room that is built with both the floor and ceiling at an angle, creating a forced perspective and tricking your eye into thinking both sides of the room are the same. The actual shape of the room is a trapezium. You can see how it is made in that [video](#).

How do optical illusions work?

Optical illusions play with your brain. Your eyes see one thing, but your brain interprets it as something else. For example, have you ever seen a picture that looks like it's moving, even though it is not? That is an optical illusion at work.



How artists create these illusions?

- Playing with perspective: artists can make flat pictures look like they have depth, like a road that seems to stretch into the distance. Sometimes, they even make 2D images look like 3D objects that jump out at you. Some street artists create amazing 3D drawings on flat sidewalks that look like they're popping out of the ground. These are optical illusions that make a flat drawing look like a deep hole, a tall building, or even a waterfall. Very popular representative is Joe Hill.



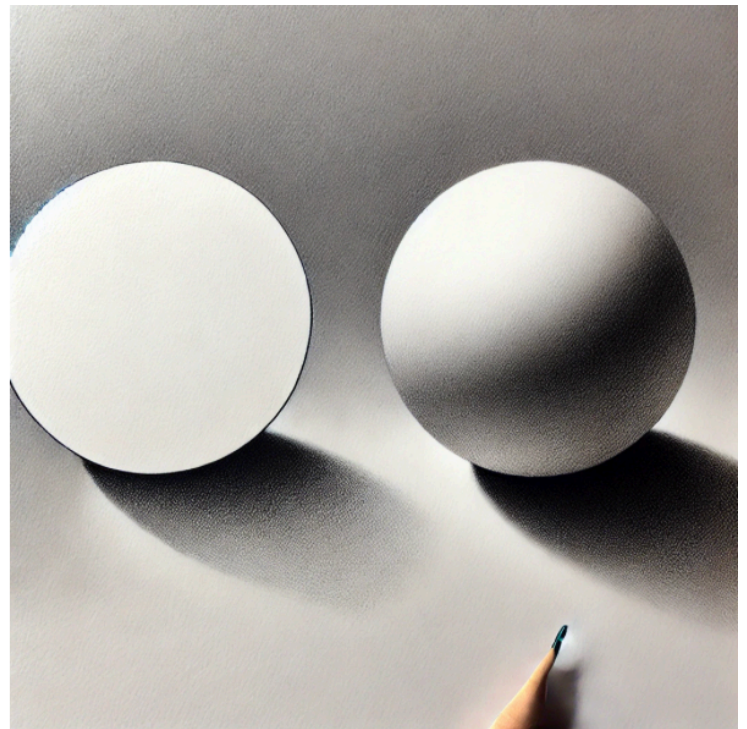
ROBOTICS AND FINE ART - THE ART OF OPTICAL ILLUSIONS

How artists create these illusions?

- He is a contemporary artist renowned for his 3D pavement art and large-scale interactive pieces that create stunning visual illusions. His work transforms public spaces into immersive experiences, captivating audiences worldwide. You can see some of his work here: joehill-art.com.
- Using light and shadows: by adding shadows and highlights, artists can make a circle look like a ball, or a square look like a box. It's all about tricking your eyes into seeing something that's not really there.
- Colour and patterns: some artists use bright colours and wild patterns to make your eyes think something is moving or changing, even though it's just paint on a canvas. Like we saw in the picture above.

Artists who loved optical illusions

- M.C. Escher: Imagine a staircase that goes up and up but somehow never gets any higher - sounds impossible, right? That's the kind of crazy, mind-bending stuff M.C. Escher loved to draw. His pictures make you wonder if what you're seeing could actually exist. You can see them here: <https://mcescher.com/>



ROBOTICS AND FINE ART - THE ART OF OPTICAL ILLUSIONS

- Salvador Dalí: he painted melting clocks that look like they're sliding off a tree branch. Dalí's paintings often look like something out of a dream, where nothing is quite what it seems.

This site www.salvador-dali.org offers extensive information about Dalí's artworks, exhibitions, and the history of his life and career. It's an authoritative source for anyone looking to explore the world of Salvador Dalí.

Why are optical illusions so important?

Optical illusions make art fun and interactive. They get you to stop and think, "Wait, what am I actually seeing here?" It's like solving a visual puzzle, and it makes looking at art a little bit like going on an adventure.

But optical illusions are more than just fun tricks - they're an important part of art. Artists use them to create amazing works that make us see things in surprising ways, turning flat pictures into something that feels real. Optical illusions show us that art can be full of surprises and that what we see isn't always what's really there. They make art exciting and encourage us to look at the world with fresh eyes.

In the modern world, optical illusions have also found a place in programming, advertising, virtual reality, and education. Developers use them to create immersive video games and apps, while advertisers catch our attention with clever visual tricks. Virtual reality relies on these principles to make digital spaces feel real, and educators use illusions to help students understand how perception works. Just like in art, these illusions across various fields demonstrate how creative thinking can transform our experiences and open up new possibilities in the way we see and interact with the world.



FUN FACT ON THE TOPIC

One of the oldest optical illusions is found in the Airavatesvara Temple in Tamil Nadu, India, built in the 12th century. This ancient temple features a clever carving that can be seen as either an elephant or a bull, depending on how you look at it. The shared features between the two animals make your brain switch between the two images, just like a visual puzzle. This shows how ancient artists were already playing with the idea of optical illusions to create engaging and thought-provoking art



Source: <https://www.libraryhistt.com/2023/12/the-worlds-oldest-optical-illusion.html>

"The Dress" Debate:

In 2015, a picture of a dress went viral because some people saw it as white and gold, while others saw it as blue and black. This happened because of how different brains processed the lighting in the photo. It became a huge internet debate. You can learn more about it here: [Why did some people see a gold and white dress?](#)



BIOLOGY AND

❖ PHOTOGRAPHY-CAPTURING LIFE THROUGH A LENS ❖

Photography and biology may seem like two completely different fields, but they can beautifully come together to help us understand the world around us. In biology, we study living organisms – from the smallest bacteria to the largest whales. But have you ever wondered how we can observe and study these organisms in their natural habitats? That's where photography comes in.

Photography allows biologists to capture images of animals, plants, and ecosystems in ways that words alone cannot. For instance, close-up photos of insects reveal intricate details that are often invisible to the naked eye, like the delicate patterns on a butterfly's wings. Underwater photography brings us face-to-face with creatures in the deep sea, showing us a world that many of us will never see in person.

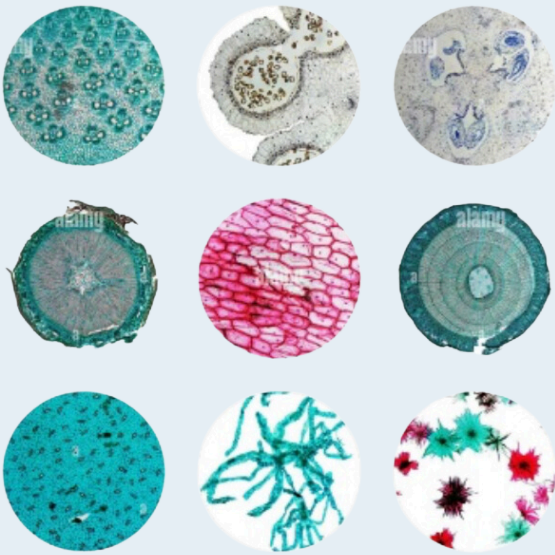
Beyond documenting organisms, photography also plays a key role in conservation efforts. Photos can tell a powerful story – they can show the beauty of a species, the fragility of an ecosystem, and the impact of human activities like deforestation. These images can inspire people to take action to protect the environment.

So next time you see a stunning wildlife photo, remember that it's not just art – it's a tool for science, conservation, and education.



FUN FACT ON THE TOPIC

Did you know that the first photographs of cells were taken in the 19th century? These early pictures were taken using a technique called photomicrography, where a camera is attached to a microscope. Today, this technique is crucial in biology, allowing scientists to study microorganisms, cells, and tissues in incredible detail. With advances in technology, these images are not only useful for research but also stunning works of art!



Source: <https://www.alamy.com/light-photomicrograph-of-many-plants-cells-seen-through-a-microscope>



Did you know that one of the most famous wildlife photographers, Ansel Adams, initially studied to become a pianist? His passion for photography and nature led him to become one of the most iconic photographers of all time. His black-and-white photos of American landscapes, particularly those of Yosemite National Park, are considered masterpieces. Adams was not only a photographer but also a conservationist. He used his photos to advocate for the protection of natural spaces, and his work helped raise awareness about the importance of preserving the environment.

Source:
<https://www.holdenluntz.com/magazine/new-arrivals/ansel-adams-cathedral-peak-and-lake/>



FUN FACT ON THE TOPIC

Did you know that photography has played a critical role in some of the most significant discoveries in biology? One of the most famous examples is the discovery of the structure of DNA. In 1952, Rosalind Franklin, a British biophysicist, used a technique called X-ray crystallography to take detailed photographs of DNA molecules. These images, particularly the famous "Photo 51," provided crucial evidence that led to the discovery of the double-helix structure of DNA by James Watson and Francis Crick. Without these groundbreaking photographs, our understanding of genetics and molecular biology might have been delayed by years.



Source: <https://www.alamy.com/light-photomicrograph-of-many-plants-cells-seen-through-a-microscope>



FUN FACT ON THE TOPIC

Photography has also been pivotal in studying animal behaviour. Time-lapse photography, for instance, allows scientists to observe processes that happen too slowly for the human eye, such as the blooming of flowers or the movement of glaciers. High-speed photography, on the other hand, can capture incredibly fast events, like a hummingbird's wings in motion or a cheetah sprinting at full speed. These images not only help us understand the mechanics behind these actions but also offer a new appreciation for the beauty and complexity of the natural world.



Moreover, wildlife photography has had a profound impact on conservation efforts. Photographers like Joel Sartore, who created the "Photo Ark" project, are using their skills to document endangered species and raise awareness about the urgent need to protect them.

Source: <https://www.mu-43.com/threads/hummingbird-wings-and-shutter-speeds.10217/>

Source: <https://www.joelsartore.com/15-years-of-photo-ark/>

The Photo Ark aims to photograph every species living in the world's zoos and wildlife sanctuaries – a visual record that highlights the incredible diversity of life on Earth and the importance of conservation.

These examples show that photography is much more than an art form; it's a powerful tool for scientific discovery and environmental conservation.



ARCHITECTURE AND ENGINEERING - BUILDING WONDERS



Source: <https://www.iloveny.com/listing/empire-state-building-observatory/25119/>

Do you know this building? It's the Empire State Building in New York City. It was the tallest building in the world from 1931.

The architects and engineers who designed it were very proud of their work.

They used the latest technology and construction methods. They managed to build it in just over a year, to show off new ways of building tall structures. But the main reason for building it was to help people get jobs and boost the economy during the Great Depression, a time when many people had no work and money was scarce.

This is how in the past architects and engineers combined their knowledge and skills to take building construction to a new level.

Today, such buildings are not as impressive since modern technology has made constructing tall structures easier. The Empire State Building is not the tallest building in the world since 1970.

The architects and engineers are meeting new challenges today and again changing the world forever.



ARCHITECTURE AND ENGINEERING - BUILDING WONDERS



We all know about Global Warming and that it causes sea level rising. What would that do with land that is on the sea level?

Let's have a look at the Netherlands, where about one third of the land lies below sea level, with the lowest point being 22 feet (6.7 metres) below sea level.



Source: Wojtek Gurak/Flickr

As sea levels keep rising and floods get worse, the Dutch architects are coming up with a smart solution: floating homes to stay safe and dry. They need to ensure these homes are stable on water, can handle bad weather, and are eco-friendly.

Once the architects are done with their design, it is time for engineers to step in.

They're the problem solvers who ensure these dreams can become reality without falling down. Engineers determine the materials to use and how to build structures so they're strong and safe. They design systems to keep buildings warm in winter, cool in summer, ensure lights turn on, and water flows.



ARCHITECTURE AND ENGINEERING - BUILDING WONDERS



When creating the floating homes in the Netherlands, engineers face the technical challenge of anchoring these structures securely and connecting them to essential services like electricity and sewage. They design and construct microgrids, waterproof connections, and pumps. Their achievements include developing reliable systems for these floating homes, proving that such solutions can mitigate climate change impacts and urban overcrowding.

In the end after working together, architects and engineers managed to build eco-friendly, water-based neighbourhoods like Schoonschip in Amsterdam.



You can see a short video of such a house [here](#).

This is just an example of how architects and engineers always work together.

Imagine you and your best friend building the ultimate LEGO castle: one designs the awesome structure (the architect), and the other ensures it's strong and stable (the engineer). Together, they make the perfect team, turning dreams into reality.

So, next time you walk into a super cool building or cross a funky bridge, you'll know that an architect and an engineer were behind the scenes, transforming visions into tangible structures.



FUN FACT ON THE TOPIC

In places like Sweden and Canada, there are hotels made entirely out of ice and snow. You can see some of them here: [Link](#)



Source: <https://newatlas.com/underwater-hotel-sharks/19434/>

In Germany, there's a bridge that looks like it's made entirely of giant LEGO bricks! It's actually a real bridge painted to look like LEGO pieces. It's a great example of how fun and creativity can mix with engineering.



Source: [Lego bridges in Germany](#)



Source: [ACROS Fukuoka](#)

Some buildings have gardens on their roofs. These green roofs help keep buildings cool in the summer, warm in the winter, and provide homes for birds and insects.



MATHS AND DANCE

❖ THE RHYTHM OF NUMBERS IN DANCE ❖

At first glance, maths and dance might seem like an unlikely pair. But when you dive deeper, you'll find that maths is woven into the very fabric of dance. Think about it: every dance routine is a sequence of movements that follow a rhythm, and rhythm is all about counting beats. This is where maths steps onto the dance floor.

In dance, timing is crucial. Dancers count beats to stay in sync with the music, often counting in sets of 8, 16, or 32. This is where basic arithmetic comes into play. But it doesn't stop there. Geometry is also key in dance, especially in styles like ballet, where dancers create lines and shapes with their bodies. The angles of their arms, the symmetry of their formations, and the patterns they form on stage are all examples of geometry in action.

Choreographers often use mathematical concepts when creating dances. For example, they might use symmetry to create mirror-image movements, or they might design a routine that plays with different types of symmetry – like rotational symmetry, where a dance move looks the same after a certain amount of rotation.

So the next time you see a dance performance, try to spot the maths behind the movement. It's all about finding the rhythm and patterns that bring the dance to life.



FUN FACT ON THE TOPIC

Did you know that the famous mathematician Fibonacci's sequence can be found in dance?

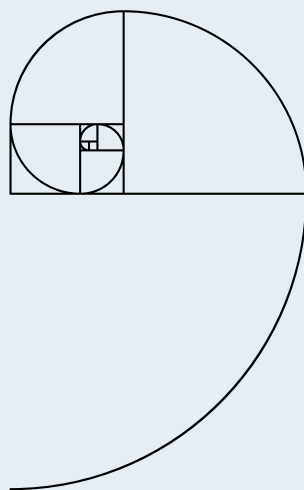
The Fibonacci sequence is a series of numbers where each number is the sum of the two preceding ones, like 1, 1, 2, 3, 5, 8, and so on. Choreographers sometimes use this sequence to structure the timing and spacing of dance moves, creating a natural and aesthetically pleasing flow. The sequence is also found in nature, such as in the arrangement of leaves on a stem, the branching of trees, and even in the spiral of a seashell.

Did you know that the connection between math and dance goes back centuries, and one of the most interesting examples comes from ancient Greece?

The mathematician Pythagoras, famous for the Pythagorean theorem, also explored the relationship between numbers and harmony in music and movement. He believed that the universe was governed by mathematical ratios and that these ratios could be expressed not only in music but also in dance. His ideas influenced the development of Greek dance, where movements were often choreographed to reflect mathematical harmony and balance.



Source [Facebook](#)



FUN FACT ON THE TOPIC

Fast forward to modern times, and the relationship between maths and dance has been explored in various creative ways. For example, the concept of "fractal dance" was introduced by choreographers who were inspired by fractal geometry. A fractal is a complex pattern that repeats at different scales, and this idea has been used to create dance routines where movements mirror these self-repeating patterns. The result is a visually stunning performance that feels both chaotic and orderly, much like a fractal itself.



Source: [CoolCleveland](#)

Mathematics is also essential in traditional dance forms. For instance, Indian classical dance is deeply rooted in mathematical rhythms and cycles. The dancers often perform to complex time signatures, and the choreography is built around precise counts and sequences. This makes the dance not only a form of artistic expression but also a mathematical puzzle that the dancer solves through movement.



Source: [PodiumPro](#)



FUN FACT ON THE TOPIC

In recent years, technology has brought even more opportunities to explore the maths-dance connection. Some choreographers use computer algorithms to create dance routines. These algorithms can generate patterns and sequences that dancers then interpret and perform. This fusion of technology, maths, and dance pushes the boundaries of what choreography can be and opens up new possibilities for both dancers and mathematicians.



Source: [Steezy](#)

These examples show that maths is not just about numbers on a page – it's a dynamic force that can shape and enhance the art of dance in fascinating ways.



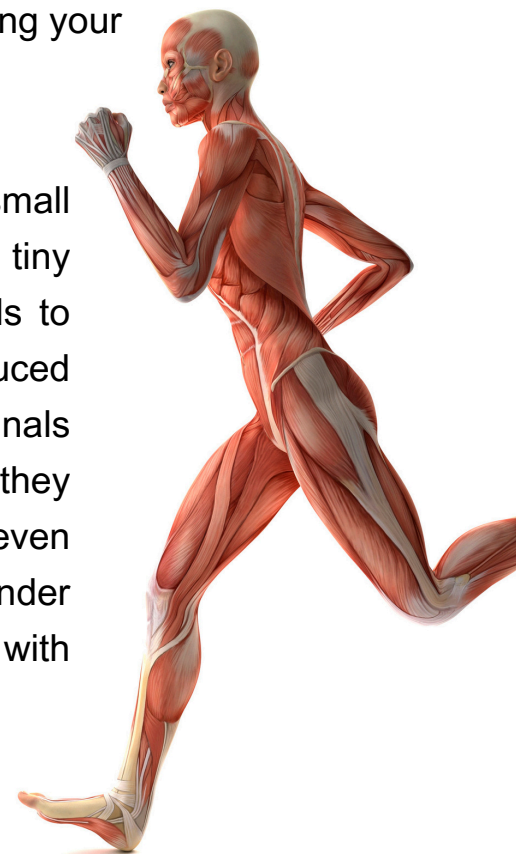
SCIENCE AND AN ACTIVE LIFESTYLE

EXERCISE EFFECTS ON BODY AND BRAIN



When you engage in regular physical activity, your body produces a protein called BDNF (Brain-Derived Neurotrophic Factor), which acts like a superfood for your brain cells. This protein helps your brain cells grow and form new connections, especially in the hippocampus, the part of your brain responsible for memory and learning. So, every time you run, dance, or play sports, you're not only working out your body but also giving your brain a cognitive boost. This boost makes it easier to learn and remember new information, enhancing your overall brain function.

Beyond the brain, your muscles are constantly generating small electrical signals when they move. These muscles act like tiny power plants inside your body. As your brain sends signals to your muscles to contract, small electrical currents are produced within the muscle fibers. Scientists can measure these signals using an electromyograph (EMG), and by studying them, they gain insights into how muscles work, how they fatigue, and even how certain muscle disorders develop. It's an amazing reminder that every time you move, your body is literally buzzing with electrical activity.



SCIENCE AND AN ACTIVE LIFESTYLE

EXERCISE EFFECTS ON BODY AND BRAIN

When you exercise, your body's cooling system springs into action. As your temperature rises, your body begins to sweat. Sweat glands in your skin produce moisture, which evaporates and helps cool you down. This natural cooling mechanism works on the principle of evaporative cooling, much like how an air conditioner works. It keeps you from overheating during intense physical activity, making sure your body stays at a safe temperature, even when you're pushing yourself hard.

In essence, every time you exercise, you're not only keeping your body fit but also improving your brain function, generating electricity, and activating your body's sophisticated cooling system. It's a full-body experience that benefits your mind and body in remarkable ways.

FUN FACT ON THE TOPIC

Exercise boosts your mood scientifically: Have you ever noticed how you often feel happier after playing sports or going for a bike ride? There's a scientific reason for this! When you exercise, your brain releases chemicals called endorphins. These natural compounds act a bit like happiness boosters in your body. They can help reduce feelings of stress and pain, and increase feelings of pleasure and well-being. This is why many people describe feeling a "runner's high" after intense exercise. The science behind this mood boost is one reason why doctors often recommend regular physical activity as a way to improve mental health and overall happiness.



MUSIC AND ENGINEERING

FROM CLAPPING HANDS TO CONCERT HALLS

Do you enjoy listening to music? Do you have a favourite musical instrument? Have you ever wondered how music was created? Let's have a look back in time to find out!

A Long, Long Time Ago...

Imagine going back thousands of years to a time when there were no TVs, no phones, and no computers. People lived in caves and used simple tools. Life was very different, but even back then, people loved music. The first musical sounds came from nature. Think about the wind whistling through the trees, the rhythmic drip of rain, or the chirping of birds. These natural sounds inspired the earliest humans to create their own music.



Source: [JFL Science](#)



They started making music by clapping their hands, banging stones together, or drumming on logs. With everyone around the fire, it helped them communicate and bond with each other.

People soon discovered that blowing into hollow sticks or animal horns made cool sounds.

These were some of the first wind instruments. By experimenting with different lengths and sizes, they found that they could make different sounds and create melodies. The earliest known musical instruments are flutes made from bird bones and mammoth ivory, dating back over 40,000 years!

You can see them in the picture.

MUSIC AND ENGINEERING

FROM CLAPPING HANDS TO CONCERT HALLS

Have you ever played with a bow and arrow? Early humans noticed that plucking a tight string made a musical twang. This led to the creation of early string instruments, like simple harps or lyres.

Of course, the most natural instrument is the human voice. Early humans used their voices to sing and chant. They created songs to tell stories, celebrate special occasions and seasons, and to help them work together.

As time went on, people got better at making instruments and playing them together. They formed groups, or bands, and discovered that playing different instruments together made the music sound even more amazing.

Source: [MaxxMusicStore](#)



Different cultures around the world invented their own unique instruments and styles of music. In Africa, people made drums and marimbas. In Asia, they created instruments like the sitar and the erhu. In Europe, they developed flutes, violins, and pianos. Music is a big part of every culture, each with its own special sounds and traditions.



Source: [AncientLyre](#)



MUSIC AND ENGINEERING

FROM CLAPPING HANDS TO

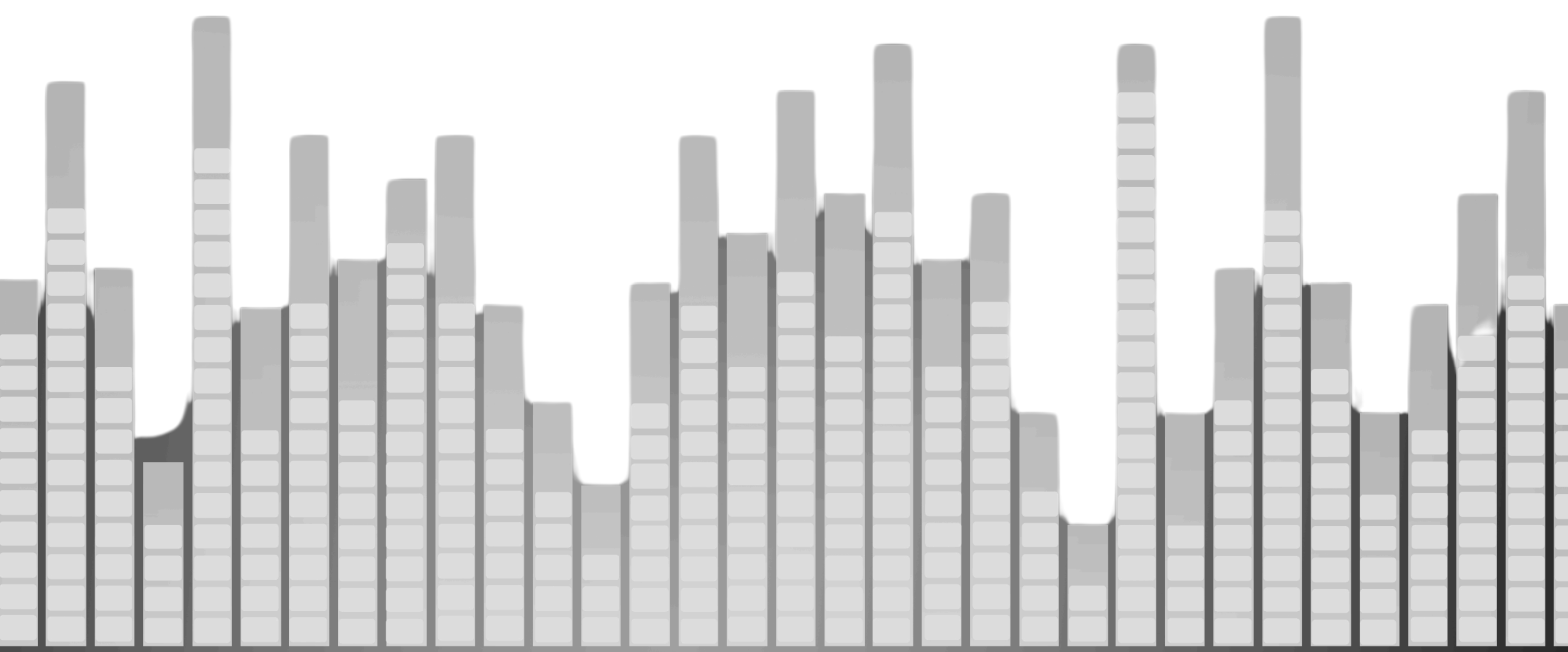
CONCERT HALLS

Today's Music

Music has evolved into countless genres and styles. We have classical, rock, pop, jazz, and so much more. We listen to music in concerts, through streaming apps, and on our personal devices. Technology has allowed us to create, share, and enjoy music in ways early humans could never have imagined.

But have you ever thought about the science that makes all this possible? This is where the fascinating field of acoustics comes into play.

The study of sound is called acoustics. Acoustic engineers are the experts who understand how sound behaves in different environments. They ensure that music sounds amazing whether you're in a concert hall, a recording studio, or listening through your earbuds.



MUSIC AND ENGINEERING

❖ FROM CLAPPING HANDS TO ❖

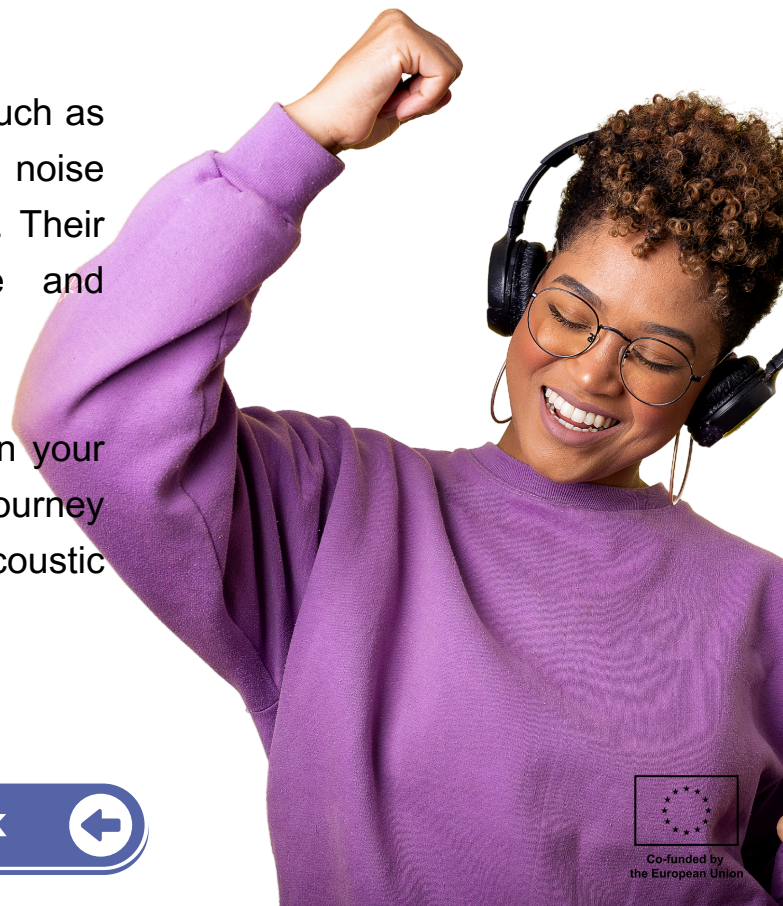
CONCERT HALLS

What Do Acoustic Engineers Do?

- ❖ **Design concert halls:** They design spaces where music sounds the best. They consider how sound waves bounce off walls and how they travel through the air. This is why some concert halls and theatres are famous for their excellent acoustics.
- ❖ **Optimise recording studios:** They create perfect environments for musicians to record their songs, ensuring no unwanted noise ruins the recording. Recording studios are carefully designed to absorb sound and prevent echoes, giving artists the best possible sound quality.
- ❖ **Improve sound stems:** They work on developing better speakers, microphones, and other audio equipment to enhance the listening experience. This means you can enjoy clear and rich sounds whether you're at a concert, watching a movie, or listening to music at home.

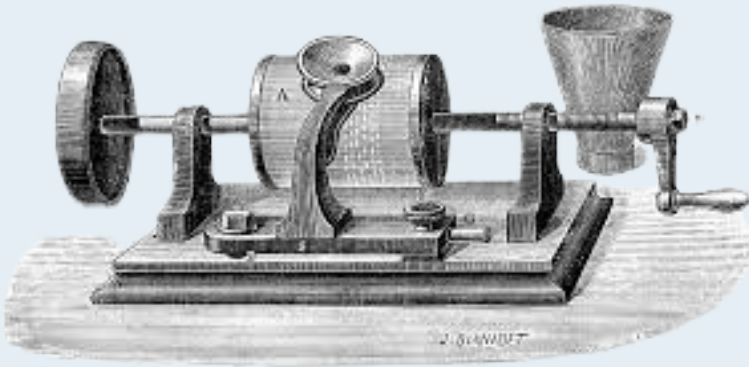
Acoustic engineers also work in other areas, such as designing quiet cars and aeroplanes, reducing noise pollution in cities, and improving hearing aids. Their work makes our lives more comfortable and enjoyable in many ways.

So next time you enjoy your favourite song on your headphones, remember the fascinating journey music has taken and the amazing work of acoustic engineers that makes it sound just right!



FUN FACT ON THE TOPIC

The invention of the phonograph by Thomas Edison in 1877 revolutionised music. It was the first device capable of recording and reproducing sound, allowing people to listen to music in their homes.



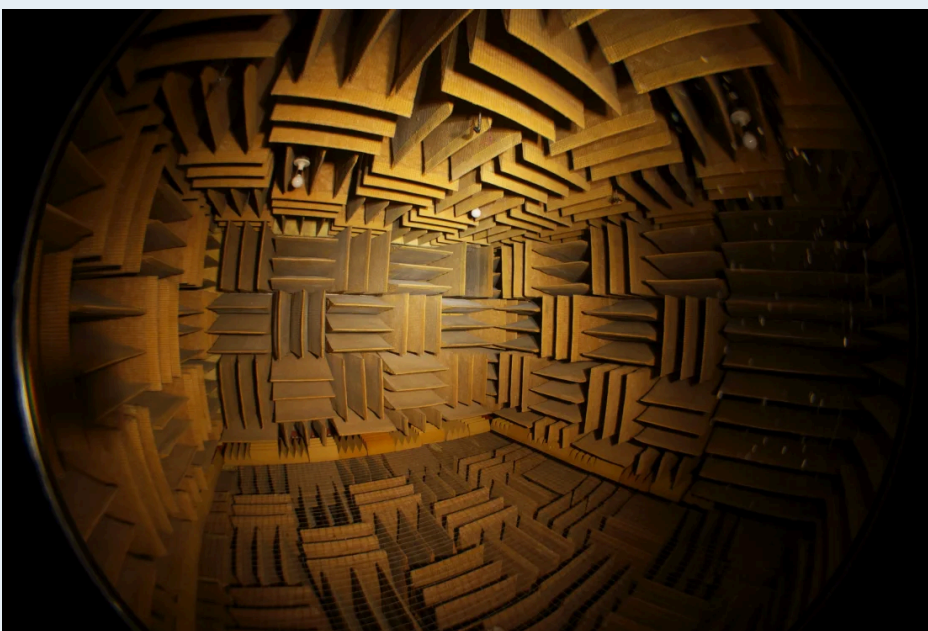
Acoustic engineers study how sound bounces off walls to improve sound quality in rooms. They design spaces where echoes make the music sound better instead of confusing.

You can watch a video here:
[How sound works in rooms](#)

Source: [SciencePhoto](#)

There are special rooms called anechoic chambers designed to completely absorb sound reflections. They are so quiet that you can hear your own heartbeat and the blood flowing in your veins. These rooms are used for testing audio equipment and studying how humans perceive sound.

Source: [CNNEdition](#)



THE FASCINATING RELATIONSHIP BETWEEN CHEMISTRY AND GRAPHIC DESIGN

In both chemistry and graphic design, color theory plays a significant role. Just as chemists study how different elements and compounds interact to form new substances with unique properties, graphic designers explore how primary colors (red, blue, and yellow) mix to create secondary colors (green, purple, and orange), and how these further blend into tertiary colors.

This process mirrors chemical reactions; for example, just as hydrogen and oxygen combine to form water, blue and yellow mix to create green. By understanding this chemistry-like behavior of colors, designers can create harmonious color schemes that evoke specific emotions and atmospheres. Furthermore, the science behind digital design's additive color model (where red, green, and blue lights combine) and print design's subtractive color model (involving cyan, magenta, yellow, and black inks) both stem from the interaction of light and pigments with human vision, demonstrating a direct application of scientific principles.



Another striking connection between chemistry and graphic design is found in chemical etching. This technique uses strong acids or chemicals to corrode a material, usually metal, in a controlled manner to create intricate patterns and textures. Designers apply a protective layer, or resist, to the areas that should not be etched, allowing the chemical to dissolve the exposed parts. This process allows for detailed and complex designs that are nearly impossible to achieve through mechanical means. From creating unique business cards to industrial signage, chemical etching empowers designers to add depth and texture to their work, showcasing how chemistry directly influences design techniques through precisely controlled reactions.

FUN FACT ON THE TOPIC

Polymer chemistry in digital screens:

The screens we use to view digital designs are marvels of polymer chemistry, particularly when it comes to organic light-emitting diodes (OLEDs). These displays use layers of organic (carbon-based) compounds that emit light when electricity is applied. Each pixel in an OLED screen contains red, green, and blue light-emitting molecules.

The chemical structure of these molecules determines the color of light they emit. What's fascinating is that by adjusting the chemical composition of these polymers, scientists can fine-tune the colors and efficiency of the display. This directly impacts graphic designers, as the improved color range and contrast of OLED screens allow for more vibrant and accurate display of their work.



EXPRESSIVE ARTS AND SPORTS

THE ART IN ATHLETICISM

Expressive arts and sports may seem like separate worlds, but they actually share a lot in common. Both require creativity, discipline, and the ability to express emotions and tell stories. Let's explore how the world of sports can be an art form in itself.

Consider figure skating or gymnastics. These sports are not just about technical skills; they are also about performing with grace, style, and expression. Athletes in these sports choreograph their movements to music, much like dancers do. They use their bodies to express themes, tell stories, and evoke emotions in the audience.

Then there's the art of sports photography, which captures moments of intense emotion, power, and grace. A photo of a basketball player soaring through the air for a dunk, or a sprinter crossing the finish line in a blur of motion, can be just as powerful as a painting or sculpture. These images freeze time and highlight the beauty and artistry in athleticism.

Sports can also inspire other forms of art, such as paintings, films, and music. Many artists have been moved by the drama and excitement of sports to create works that celebrate the athletic spirit.

FUN FACT ON THE TOPIC

Did you know that breakdancing, a form of street dance, is now considered a sport and will be part of the Olympics?

Breakdancing, or "breaking," is a style of dance that originated in the hip-hop culture of the 1970s. It combines athletic moves like spins, flips, and freezes with creative expression. In 2024, breaking will make its debut at the Paris Olympics, where dancers, known as "B-boys" and "B-girls," will compete for medals. This event is a perfect example of how sports and the expressive arts can come together in a powerful way.



FUN FACT ON THE TOPIC



Source: [EuroNews](#)

Did you know that the Olympics, often seen as the pinnacle of athletic achievement, originally included events for the arts?



Source: [BookBaker](#)

These competitions were the brainchild of Pierre de Coubertin, the founder of the modern Olympic Games, who believed that art and sport were intrinsically linked. Medals were awarded to artists whose works were inspired by sport, and these artistic competitions were seen as an essential part of the Olympic movement.

From 1912 to 1948, the Olympic Games featured competitions in literature, music, painting, sculpture, and architecture alongside the traditional athletic events.



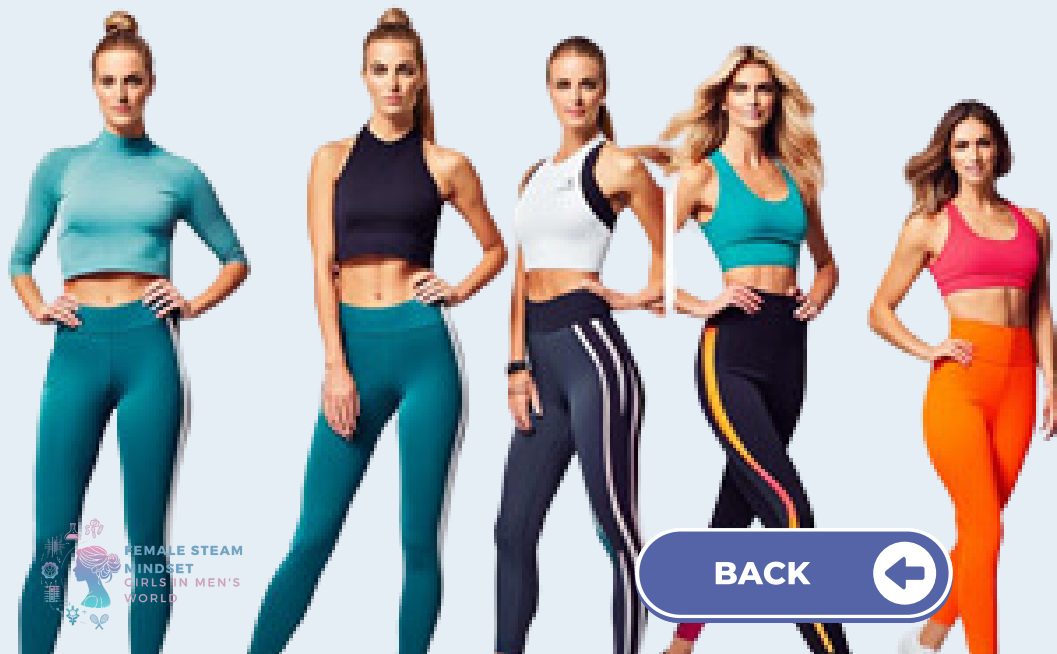
FUN FACT ON THE TOPIC

Although the art competitions were eventually discontinued, the connection between expressive arts and sports has only grown stronger. Take the example of martial arts. Many forms of martial arts, such as Tai Chi and Capoeira, are as much about self-expression and artistry as they are about physical combat. The fluid movements of Tai Chi, for instance, are often compared to a dance, where the practitioner expresses inner balance and harmony through motion. Capoeira, an Afro-Brazilian martial art, combines dance, acrobatics, and music in a way that blurs the lines between fighting and performing arts.



Source: [Kuivoja](#)

The influence of sports on the arts is also evident in the world of fashion. Sportswear has inspired many designers, leading to the creation of athleisure – a style that combines athletic clothing with everyday fashion. Designers like Stella McCartney have collaborated with sports brands to create clothing lines that are both functional and stylish, bringing the aesthetics of sport into the world of high fashion.



BACK



Source: [Venuez](#)



Co-funded by
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FUN FACT ON THE TOPIC

Another fascinating intersection is the world of sports choreography, especially in cheerleading and gymnastics. These sports require athletes to perform highly choreographed routines that combine physical strength with artistic expression. The routines are carefully crafted to convey energy, emotion, and narrative, making them a form of performance art in their own right.



Source: [HClampOnline](https://www.hclamp.com)

These examples demonstrate that sports and the expressive arts are not just complementary; they often intertwine in ways that enrich both disciplines. Whether through the physical poetry of a gymnast's routine or the artistic inspiration drawn from athletic feats, the connection between sports and the arts continues to evolve and inspire.



ECOLOGY AND PLANNING OF SPORTS EVENTS GREENING THE GAME



Sports events are thrilling and bring people together, but they can also have a significant impact on the environment. From energy consumption to waste generation, large sports events can leave a huge ecological footprint. But with careful planning, we can make these events more sustainable and eco-friendly.

One of the biggest challenges in planning sports events is managing waste. Thousands of spectators generate a lot of trash, from food packaging to promotional materials. Event planners are now focusing on reducing waste by using biodegradable materials, encouraging recycling, and even banning single-use plastics. For example, some marathons now provide water in edible seaweed-based pouches instead of plastic bottles.

Energy use is another important factor. Sports stadiums and arenas require a lot of power for lighting, heating, and cooling. Planners are increasingly looking to renewable energy sources, such as solar and wind power, to run these venues. The construction of the venues themselves is also being rethought, with a focus on using sustainable materials and designs that minimise environmental impact.

Transportation to and from events is a major source of carbon emissions. To address this, organisers promote carpooling, public transportation, and even cycling to reduce the event's carbon footprint.

Making sports events more eco-friendly isn't just about reducing harm – it's also an opportunity to raise awareness about environmental issues. When sports fans see sustainable practices in action, they might be inspired to make changes in their own lives.



FUN FACT ON THE TOPIC

Did you know that the London 2012 Olympics were the first "sustainable" Olympics? The organisers made a huge effort to minimise the environmental impact of the Games. They built the Olympic Park on a former industrial site, cleaning up the land and turning it into a green space that is still used by the community today. They also used energy-efficient designs for the stadiums and made sure that 98% of the waste generated during the Games was either reused or recycled. This set a new standard for how large-scale events can be planned with the environment in mind.



Source: [GitHub](#)



Source: [BeSoccer](#)

Did you know that some of the world's largest sporting events are taking significant steps to reduce their environmental impact, setting new standards for sustainability? One of the most notable examples is the FIFA World Cup. In recent years, the organisers have made a concerted effort to minimise the carbon footprint of this global event. For the 2022 World Cup in Qatar, they planned to use modular stadiums that could be disassembled and reused after the event, reducing the need for permanent, resource-intensive structures.



FUN FACT ON THE TOPIC

Another impressive example is the Tour de France, the world's most famous cycling race. Recognizing the impact of such a large-scale event, the organisers have implemented a range of eco-friendly measures. These include reducing the use of single-use plastics, promoting sustainable transportation for fans, and ensuring that waste generated during the race is properly managed and recycled. The Tour also highlights the importance of clean energy, with some stages of the race being powered entirely by renewable energy sources.



Source: [VovWorld](#)

The Olympic Games have also been at the forefront of sustainable event planning. The Tokyo 2020 Olympics (held in 2021 due to the pandemic) made headlines for its innovative sustainability initiatives. The medals awarded to athletes were made from recycled electronics, collected from old phones and other gadgets donated by the public.



Additionally, the beds in the Olympic Village were made from recyclable cardboard, and the energy used during the Games was sourced from renewable energy, including solar and biomass. These efforts were part of a broader strategy to make the Tokyo Olympics one of the most eco-friendly in history.



FUN FACT ON THE TOPIC

Sustainability in sports isn't just about large-scale events; it's also being embraced at the grassroots level. Local marathons and community sports events are increasingly adopting green practices, such as encouraging participants to bring reusable water bottles, using digital registration to cut down on paper waste, and choosing venues that are accessible by public transport to reduce carbon emissions.



Source: [OlimpysLibrary](https://olimpicslibrary.com/)

These examples highlight how the world of sports is evolving to meet the challenges of environmental sustainability. By incorporating green practices into the planning and execution of sports events, organisers are not only reducing their ecological impact but also raising awareness among fans and participants about the importance of protecting our planet.



THEATER AND ENGINEERING

❖ BUILDING A PLAY: THE ART OF ❖ THEATRE PRODUCTION



Hello, dear friends!

Today, I remembered the first time I went to a play when I was a child. Back then, I was younger than you are now. It felt so exciting and new, and I couldn't believe how everything on stage came to life. I was amazed by the colourful costumes, the cool sets, and how they changed during the play. I was so impressed by how the actors spoke and the words they used.

I kept wondering, How do they know exactly where to stand, when to change clothes, and how do they remember all their lines? It felt like magic.

Now, I know how the magic of theatre really happens. If you've ever wondered the same thing and want to learn more, keep reading – you'll discover the behind-the-scenes secrets and how everything comes together for an amazing show.



It all starts with an idea from the playwright, who writes the story, creating characters and dialogue that will later be brought to life by actors. Playwrights, or scriptwriters, usually love writing and making up stories, letting their imagination run wild.

Sometimes they create a brand-new story to present to the audience, and other times they take an existing story that someone else wrote and adapt it by making a few changes to fit their vision.



THEATER AND ENGINEERING

❖ BUILDING A PLAY: THE ART OF THEATRE PRODUCTION ❖

Once the script is ready, the director steps in. The director is like the captain of the ship, guiding everyone and making sure the story unfolds in just the right way. They work closely with the actors, showing them how to move, where to stand, and how to speak their lines with emotion and meaning. In a school play this is usually the teacher. Meanwhile, the set designers are busy creating the world where the play will take place.

These creative people usually love building, designing, and working with different materials. Their passion lies in crafting environments that bring stories to life, whether it's a grand castle, a dense forest, or even a cosy living room. Set designers sketch and build everything from huge props to tiny details, making sure the audience feels completely transported to the world of the play.

Costume designers, on the other hand, are fascinated by clothes, fashion, and how different outfits can tell a story. They love imagining what characters would wear and use their skills to create costumes that turn actors into kings, astronauts, or magical creatures.



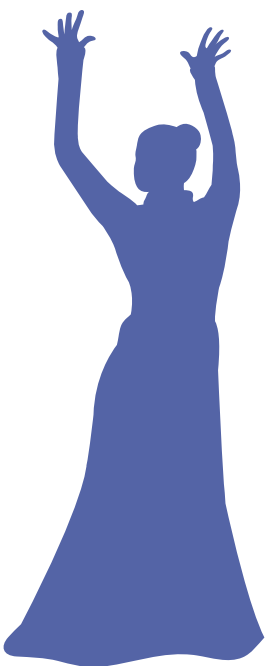
THEATER AND ENGINEERING

❖ BUILDING A PLAY: THE ART OF THEATRE PRODUCTION ❖

Their interest in fabrics, colours, and styles helps them design costumes that match the theme of the play and bring the characters' personalities to life. Whether it's a shimmering gown or a futuristic spacesuit, costume designers make sure each character looks just right. As the big day approaches, the lighting and sound technicians set up their equipment.



They play with shadows and brightness, making sure the spotlight falls on the right actor at the right time. They also create sound effects like thunder, rain, or music to make the story feel more real.



Behind the scenes, the stage crew is always busy. During the show, they quietly move props and sets, making sure everything is in the right place without being seen by the audience. They help make the transitions between scenes smooth and seamless.

Finally, after weeks of rehearsals and hard work, the play is ready for its audience. The actors, who usually love performing and stepping into different characters, have been practising their lines and movements until they know them by heart.

They are passionate about telling stories and enjoy using their voices, expressions, and body language to bring their characters to life. For actors, the thrill of being on stage and connecting with the audience is what makes theatre so exciting.



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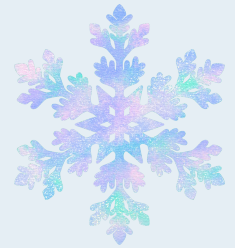


For actors, the thrill of being on stage and connecting with the audience is what makes theatre so exciting. With the script polished, costumes ready, sets built, and actors prepared, the moment has come. The stage is set, the lights are perfect, and the magic is about to begin. When the curtain rises, everything comes together, and the magic of the theatre takes over, drawing the audience into the world of the play. And while the audience enjoys the story unfolding before them, they may not realise how many people worked together to make that magical moment happen. Now that you know how it all works, maybe you'll be part of creating that magic one day too.

[BACK](#)

FUN FACT ON THE TOPIC

The movie Frozen went through several script changes. Originally, Elsa was written as a villain, but after the song "Let It Go" was created, her character was changed to be more complex and misunderstood rather than evil.



In Charlie and the Chocolate Factory (2005), the trees in the chocolate river scene were made using real candy, and the grass was made from dyed sugar. The actors could actually eat parts of the set during filming.



In the Harry Potter movies, the Hogwarts school robes were made to look like heavy wool, but they were actually made from a lighter material so the actors could move around more easily.

For the movie Pirates of the Caribbean, Johnny Depp learned how to sword fight and play the guitar to portray Captain Jack Sparrow. He even did many of his own stunts.



ART AND SCIENCE OF NUTRITION

THE PALETTE OF HEALTHY EATING



Nutrition is not just a science; it's also an art. The way we prepare and present food can be just as important as the nutrients it contains. When we think about nutrition, we often focus on the vitamins, minerals, and calories in our food. But how we combine ingredients, cook them, and even the colours on our plate all play a role in our overall health and enjoyment of food.

Consider the rainbow of fruits and vegetables. Each colour represents different nutrients that are important for our health. For example, orange fruits and vegetables like carrots and sweet potatoes are rich in beta-carotene, which is good for your eyesight. Green vegetables like spinach and kale are packed with vitamins and minerals that support your immune system. By "painting" your plate with a variety of colours, you're ensuring that your body gets a wide range of nutrients.

The art of nutrition also involves understanding how to balance flavours and textures. A well-balanced meal isn't just about hitting the right nutritional targets – it's also about making food that is delicious and satisfying. Chefs and nutritionists work together to create meals that are both healthy and tasty, proving that you don't have to sacrifice flavour for nutrition.

Cooking methods are another important aspect. Steaming, grilling, and baking can preserve nutrients better than frying or boiling. The art lies in choosing the right method to enhance both the taste and the nutritional value of the food.



FUN FACT ON THE TOPIC

Did you know that the Japanese practice of "washoku" – a traditional dietary culture – is recognized by UNESCO as an Intangible Cultural Heritage?

Washoku emphasises the balance of taste, health, and seasonality, using fresh, local ingredients. Meals are often composed of a variety of small dishes, each offering different textures, colours, and flavours. This approach not only makes the food visually appealing but also ensures a well-rounded and nutritious diet. The careful consideration of ingredients and presentation in "washoku" reflects the deep connection between art, culture, and nutrition in Japanese cuisine.

Source: [IndoJapan](https://www.indojapan.com)



Did you know that the colors on your plate can actually influence your health and mood?

The science of nutrition isn't just about the nutrients in your food; it's also about how those foods are presented and perceived. This concept is rooted in the field of gastrophysics, which studies how our senses influence our eating experience. For example, studies have shown that the colour red can increase appetite, which is why many fast-food chains use red in their logos and interiors. On the other hand, the color blue is believed to suppress appetite, and some people use blue plates to help with portion control.



FUN FACT ON THE TOPIC

The art of plating – how food is arranged on a plate – can also impact how we perceive taste. Research has shown that people often find food more flavorful and satisfying when it is presented in an aesthetically pleasing way. This is why high-end restaurants pay so much attention to the visual presentation of their dishes. The combination of colors, textures, and patterns on a plate can enhance the dining experience, making the food not only more enjoyable but also more satisfying.



Source: [Biyopass](#)



FUN FACT ON THE TOPIC

There's also an interesting connection between art, science, and the cultural aspects of nutrition. Different cultures have developed their own artistic approaches to food, which reflect their unique relationships with the ingredients and the environment. For example, the Japanese practice of kaiseki is a traditional multi-course meal that emphasizes the seasonal beauty of nature. Each course is carefully crafted to showcase the colors, shapes, and textures of the ingredients, creating a harmonious and visually appealing dining experience. This attention to detail not only enhances the aesthetic experience but also aligns with the nutritional philosophy of eating with the seasons, which is believed to be healthier.



Source: [JustOneCookBook](#)

Another fascinating aspect of the art and science of nutrition is the role of umami, often referred to as the "fifth taste." Umami, which means "pleasant savoury taste".



Source: [TheGuardian](#)



BACK



MUSIC AND STRESS MANAGEMENT TECHNOLOGIES BIOFEEDBACK MUSIC THERAPY AND THE "MOZART EFFECT"

Biofeedback music therapy, the "Mozart Effect," and nature sounds are all fascinating ways that music and sound are used to help manage stress and improve mental function. Imagine a playlist that changes based on how your body feels—this is the core of biofeedback music therapy. With special systems that monitor signals like your heart rate, the music adjusts in real-time. For instance, if your heart starts racing from stress, the music will slow down, offering a calming beat that helps guide your body back to a more relaxed state. It's like having a DJ that's tuned into your body's needs, combining the soothing power of music with science to help you chill out more effectively than just listening to any random song.



Another intriguing concept is the "Mozart Effect," which suggests that classical music, specifically Mozart's compositions, can give you a temporary mental boost. Studies have shown that listening to Mozart improves certain types of thinking, particularly tasks involving spatial awareness and mental imagery. While it won't make you instantly smarter, the "Mozart Effect" has inspired brain-boosting playlists aimed at enhancing focus and reducing stress, showing how classical music has found a modern application in the world of mental wellness.

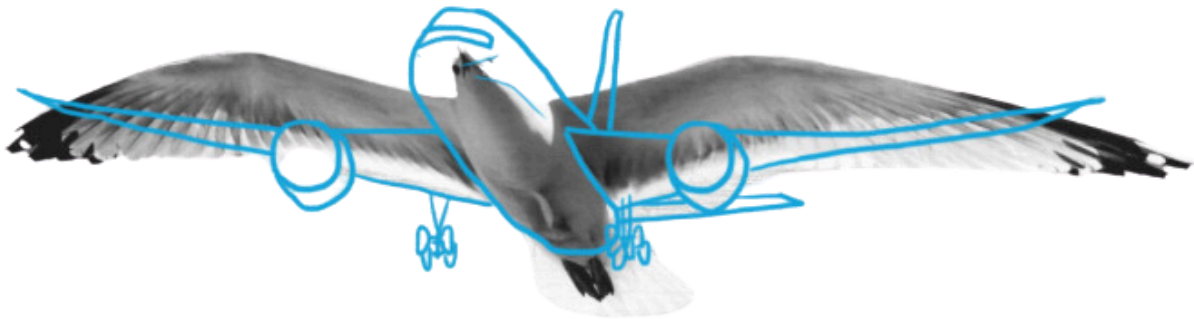
Nature sounds are another powerful tool in stress management. Whether it's the sound of waves crashing or birds singing, nature sounds activate the parasympathetic nervous system, which helps calm us down by triggering our "rest and digest" mode, the opposite of the "fight or flight" response caused by stress. Many apps now mix these soothing nature sounds with music, creating a layered, calming experience that helps you relax. It's like taking a mental retreat into nature, even if you're sitting at home.

FUN FACT ON THE TOPIC

Rhythmic entrainment in group settings: Picture a group of people all drumming together in perfect sync - that's the idea behind rhythmic entrainment. Some high-tech stress management programs use special drumming equipment that helps everyone find the same beat. When people drum together, their heart rates and even their brainwaves can start to synchronize. This creates a powerful feeling of connection and unity, which is great for reducing stress. It's like the whole group becomes one big, rhythmic, stress-busting machine! The tech part comes in with special drums that light up or give other cues to help keep everyone on beat, even if they're not musical experts. This combo of ancient drumming traditions and modern tech is helping people beat stress together.



VISUAL ARTS AND SPORTSWEAR DESIGN BIOMIMICRY, COLOR PSYCHOLOGY, AND KINETIC

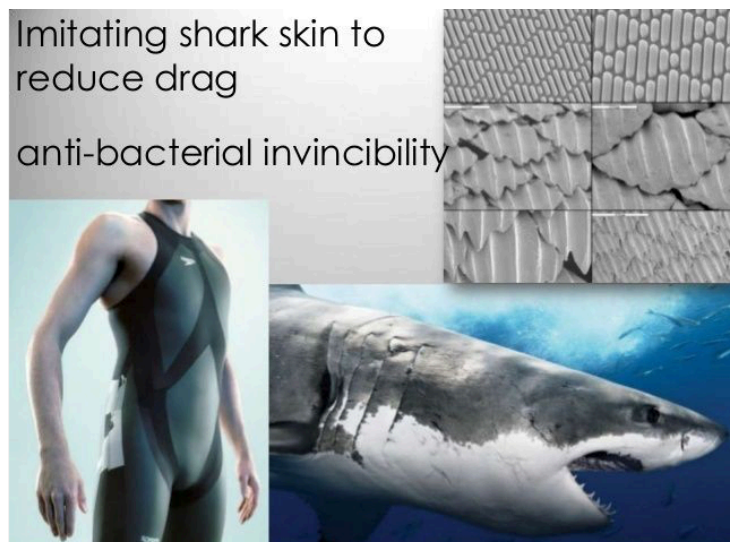


Biomimicry, color psychology, and kinetic art are playing important roles in the design of modern sportswear, blending science, art, and technology in innovative ways.

Biomimicry in sportswear patterns is one of the most fascinating trends. By studying nature's engineering, visual artists and designers collaborate to create patterns and fabrics inspired by the natural world. For instance, high-tech swimsuits feature tiny ridges that mimic the texture of sharkskin. Sharks are known for their efficiency in moving through water, and designers have harnessed this concept to help swimmers glide faster by reducing drag.

These patterns, which might look artistic, are grounded in scientific research on fluid dynamics. It's like wearing a piece of art that also functions as high-performance sportswear, showcasing how nature's design principles can be adapted into innovative athletic gear.

Source: [The power of nature](#)



Imitating shark skin to reduce drag

anti-bacterial invincibility

VISUAL ARTS AND SPORTSWEAR DESIGN BIOMIMICRY, COLOR PSYCHOLOGY, AND KINETIC

Color psychology also plays a big part in sportswear, particularly in team uniforms. Designers collaborate with psychologists to choose colors that not only appeal visually but also influence behavior and perception. For instance, red is often chosen for its association with aggression and dominance, while blue tends to evoke feelings of trust and stability. These choices can subtly affect how both players and spectators feel about a team's performance. Teams sometimes even have alternate uniforms for away games to balance any color advantage the home team may have. This creative blend of color theory and team tradition turns uniforms into a canvas that represents strength, unity, and psychological strategy.

Kinetic art has further inspired sportswear designers to develop fabrics that interact with movement. Imagine a jacket that changes appearance as you run, shimmering or shifting colors with every step, or shoes with flowing patterns that respond to your gait. These fabrics incorporate special materials like holographic inks or reflective elements that create dynamic visual effects when in motion. This fusion of kinetic art with functional fabric design not only enhances the visual appeal of sportswear but also turns athletes into moving works of art. By combining fashion, technology, and movement, designers are pushing the boundaries of what sportswear can achieve, merging performance with creativity.



FUN FACT ON THE TOPIC

Cultural art influences in global sports brands: Major sportswear brands often collaborate with visual artists to incorporate cultural art styles into their designs, especially for international events like the Olympics or World Cup. For example, a brand might work with indigenous artists to create patterns for a country's Olympic uniforms, or with street artists to design limited-edition sneakers. This not only results in visually stunning sportswear but also helps to celebrate and promote diverse cultural art forms on a global stage. It's a powerful way of bringing traditional or local art styles into the world of modern sports fashion. These collaborations can turn a simple sports jersey or shoe into a wearable piece of cultural art, connecting athletes and fans to rich artistic traditions.



SOCIAL SCIENCES AND ANALYSIS OF SPORTS CULTURE

WOMEN WHO TRANSFORMED SPORTS

Do you have a favourite sport? Do you enjoy playing it?

Nowadays we can choose any sport we like and we can just practise it. The gender doesn't matter.

But it wasn't always like that.

Can you imagine wanting to play your favourite sport but being told, "Sorry, only boys can do that."? Not too long ago, that was the reality for many girls. They lived in a world where the opportunities to play sports were very limited or non-existent. For a long time, sports were considered "unladylike" or too tough for women.

Back then people believed that women weren't strong enough or skilled enough to compete in sports, and these ideas kept girls on the sidelines, watching instead of playing. Schools didn't have teams for girls, and professional sports leagues were only for men.

This all started to change thanks to some courageous women who weren't willing to accept the idea that sports were just for boys. They knew that girls were just as determined, and passionate about sports as boys, and they fought for the right to play. These women had to be brave because they were often told that they didn't belong on the field, the court, or the track. They had to prove themselves over and over again, showing that they could compete, win, and inspire others. Now we will take a trip back in time and see how it all began.



SOCIAL SCIENCES AND ANALYSIS OF SPORTS CULTURE WOMEN WHO TRANSFORMED SPORTS

Let's start back in **1900**, when women weren't even allowed to compete in the Olympics. But during the Paris Games that year, a small group of women stepped onto the tennis courts and golf courses, determined to show what they could do. They were pioneers, proving that women could play and compete at the highest levels, just like men. It was the beginning of something truly special.



Fast forward to **1967**. A young woman named **Kathrine Switzer** loved running. She wanted to run the Boston Marathon, but there was just one problem: women weren't allowed to race. Kathrine didn't let that stop her. She entered the race anyway, and when officials tried to drag her off the course, she kept running. With every step, she showed the world that women had the strength and determination to go the distance. Kathrine finished the marathon, and her bravery inspired many others to follow in her footsteps.

Then there was the year **1972**, a turning point for girls in the United States. The government passed **Title IX**, a law that made it illegal for schools to give boys more opportunities in sports than girls. Suddenly, girls could join teams, play in competitions, and dream of being champions. Because of Title IX, millions of girls have been able to play sports, learn the value of teamwork, and discover their own strengths.



SOCIAL SCIENCES AND ANALYSIS OF SPORTS CULTURE WOMEN WHO TRANSFORMED SPORTS

Source: [TexasMonthly](#).



In **1973**, tennis star **Billie Jean King** did something incredible. She accepted a challenge to play against Bobby Riggs, a male tennis player who claimed that men were better than women at sports. The match was called the “**Battle of the Sexes**,” and everyone was watching.

Billie Jean won the match and made a powerful statement that women deserve respect and equality, on and off the court. Billie Jean King helped start the Women’s Tennis Association (WTA), making sure women players got fair treatment and pay. She spent her life fighting for women to have the same opportunities as men in sports and other areas.



SOCIAL SCIENCES AND ANALYSIS OF SPORTS CULTURE

WOMEN WHO TRANSFORMED SPORTS

The **1990s** were full of groundbreaking moments for women in sports. In **1991**, the first-ever **Women's World Cup** was held in China.

For the first time, the world saw women's football on a grand stage, with teams from around the globe competing with skill and passion.



Source: [HistoryofSoccer](#)

This tournament showed that women's football was just as exciting and worthy of attention as men's football.



Then, in 1996, the WNBA was created, giving female basketball players a professional league of their own. It was a dream come true for so many women who loved the game but had nowhere to showcase their talents. The WNBA became a place where teamwork, dedication, and athleticism were celebrated, and it continues to inspire young girls to chase their basketball dreams.



SOCIAL SCIENCES AND ANALYSIS OF SPORTS CULTURE WOMEN WHO TRANSFORMED SPORTS

These women didn't just play sports - they broke down barriers, opened doors, and made sure that the world of sports became a place where everyone could belong. They've shown us that sports are about more than just winning - they're about courage, fairness, and the belief that everyone deserves a chance to play.

Today, thanks to them, we see women excelling in every sport imaginable - football, tennis, basketball, athletics, and more.

[BACK](#)

FUN FACT ON THE TOPIC



Source: [Ronda Rousey](#)

Wrestling is considered one of the oldest sports in history. There are ancient cave drawings in France that show wrestlers from over 15,000 years ago.

Ronda Rousey was the first woman signed by the UFC (Ultimate Fighting Championship) and became its first Women's Bantamweight Champion. Her success helped to legitimise women's MMA and brought it into the mainstream. She has become an icon of female empowerment in combat sports.





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