

INTERESTING ASPECTS OF PHYSICS

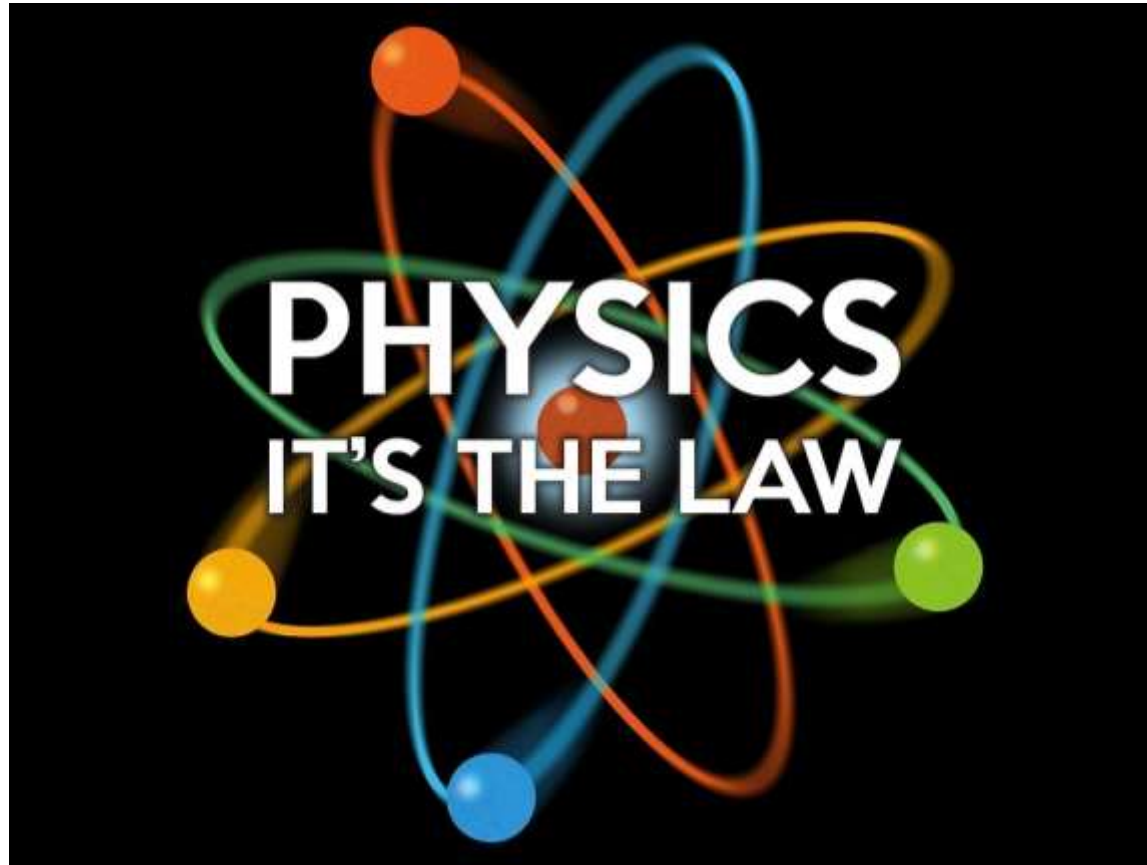
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WHAT IS PHYSICS ?





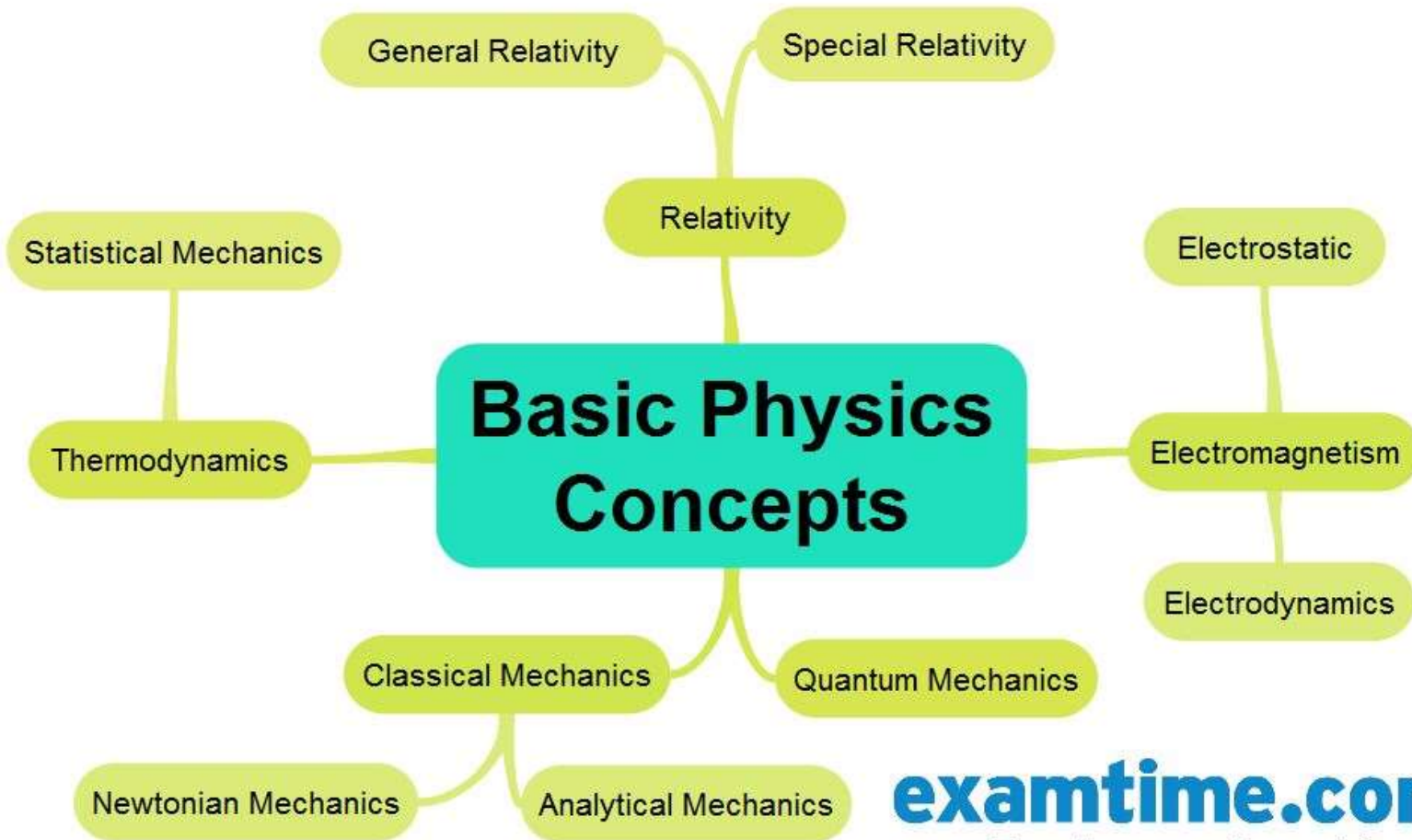
What is Physics?

CRC PRESS AUTHORS EXPLAIN!

“ IT'S FIGURING OUT
THE WORLD WE
LIVE IN AND
BUILDING THE
INSTRUMENTS TO
HELP WITH THE
FIGURING! ”
-VOLKER ZIEMANN

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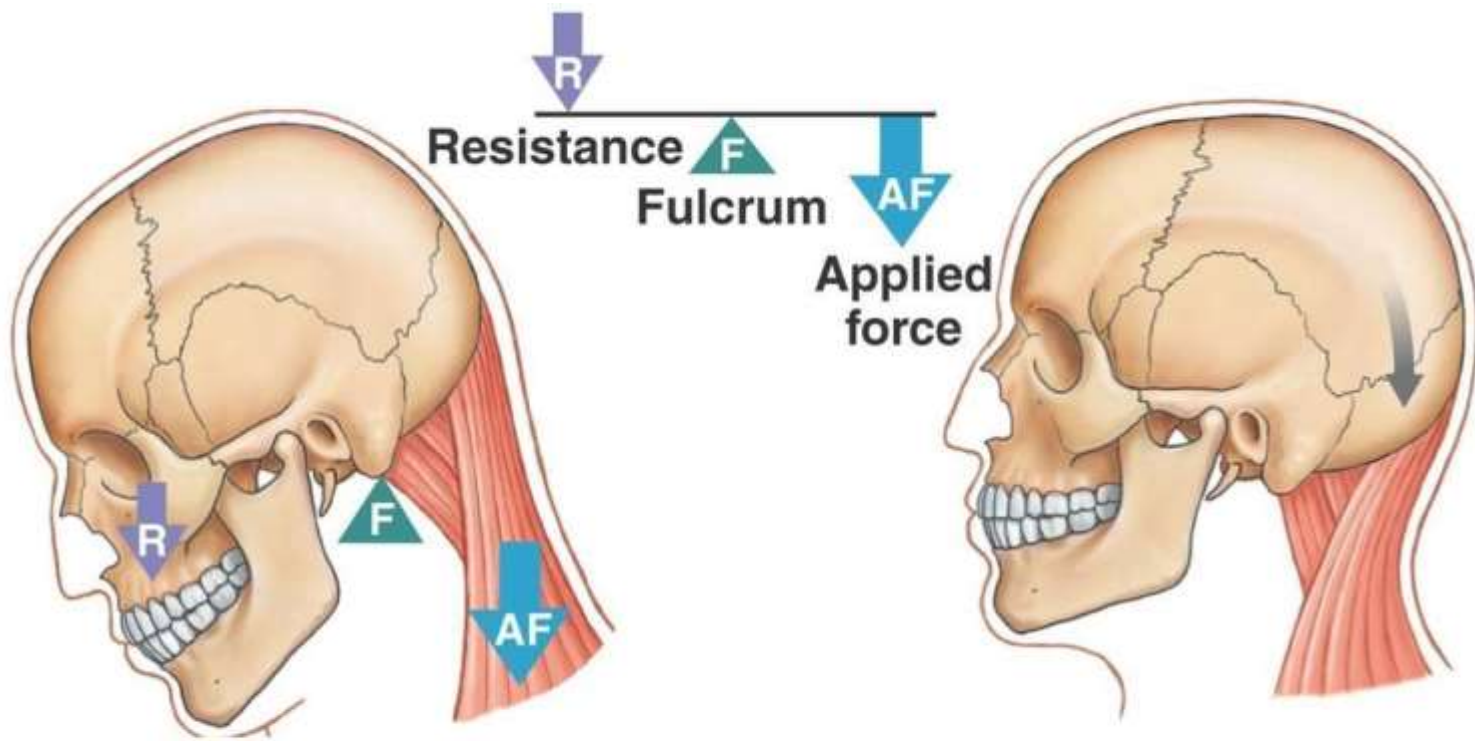
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UNKNOWN PHYSICS OF EVERYDAY THINGS

Physics Behind Sleeping





Movement completed

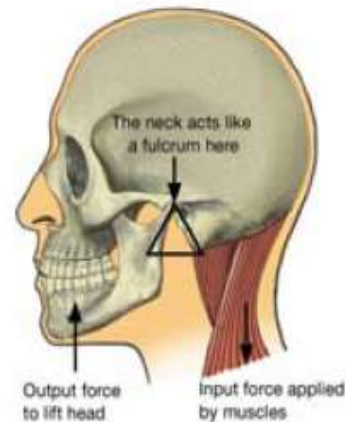
First Class Lever



An example of a first-class lever is the joint between the skull and the atlas vertebrae of the spine: the spine is the fulcrum across which muscles lift the head.

The muscles in the neck provide an input force that allows you to raise your head.

- When you relax these muscles, gravity causes your head to fall forward.



First-class lever



PHYSICS OF EATING

When biting using your front teeth, your jaw works as a third-class lever.

- The input force (applied by your jaw muscles) occurs between the fulcrum (the joint where your jaw bone connects to your skull) and the output force which is applied to the apple.

Third-class lever





The buzzing sound of an alarm clock helps you wake up in the morning as per your schedule. The sound is something that you can't see, but hear or experience. Physics studies the origin, propagation, and properties of sound.

Can The sound Visualizable?



Self Cleaning EFFECT OF NATURE



Leaves of the sacred **lotus** are **self-cleaning** thanks to hydrophobic microscale bumps. ... Dirt particles on the **leaf's** surface stick to these droplets, both due to natural adhesion between water and solids and because contact with the **leaf** surface is reduced by over 95% from the **leaf's** microtopography



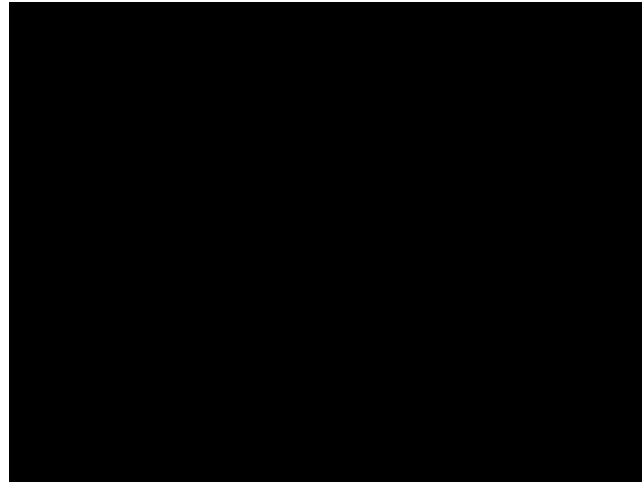
PHYSICS OF FORMATION OF FOAM



- These long white clouds you are referring to are called condensation trails or contrails. Jet fuel is made of carbon and hydrogen which burns in the presence of oxygen.
- In this reaction some of the carbon joins with the oxygen to make CO₂ (carbon dioxide) and some of the hydrogen joins with the oxygen to make H₂O (water).
- The water which comes out of the engine is invisible water vapour but as soon as it is exposed to the colder temperatures of the upper atmosphere, it condenses into little drops of liquid water which become suspended in the air which is what we see as contrails.

This is a similar effect which you notice on a cold day when you breathe out; the water vapour in your breath condenses as it meets the cold air and you can see the breath.

Does the Water droplet DANCE?



By coating an aluminum surface with nonstick material, like the kind used on cooking utensils.

The researchers then created several designs by covering portions of the nonadhesive area so that it would act like a normal, "wetable" surface – meaning it would cause the falling droplets to spread around.

By varying the designs of the wettable and water-repellant areas, the researchers were able to control the motion of the droplet and make it roll, twirl and even perform a combination of different actions

Color of Butterfly



TOUCH SCREEN NOT NAIL-FRIENDLY?



The electrons in your fingertips repel the like-charged electrons in your phone's screen, causing the electrical circuit at that point to open and a programmed sensor to perform the action coded in the phone's software

WHY WET THINGS APPEAR DARKER?



A wet cloth looks darker because less light is reflected from a wet cloth. Any cloth is woven from a yarn or fibre. That fibre is in turn made of smaller micro-fibres. Light comes from the room lights, or from the Sun, and lands on the cloth.

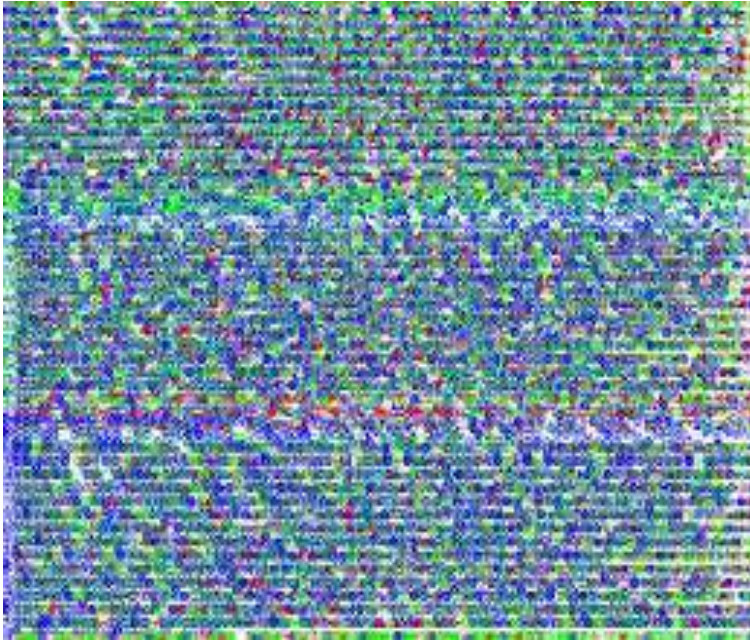
Some of the photons of light are absorbed, but some are reflected and land on your retina - and that gives you the sensation of seeing the cloth as having a certain level of brightness.

But when the cloth gets wet, the water fills in the gaps between each individual strand of fibre, and also between each individual micro-fibre. When light falls on the wet cloth, some of it is now more likely to enter the water, and be bent away from your eyes.

So some of the light that would have previously been reflected off the cloth back to your eyes is now bent away.

Fewer photons of light get back to your eyeball, and so the wet cloth "appears" darker than the dry cloth.

RAIN BOW TECHNOLOGY

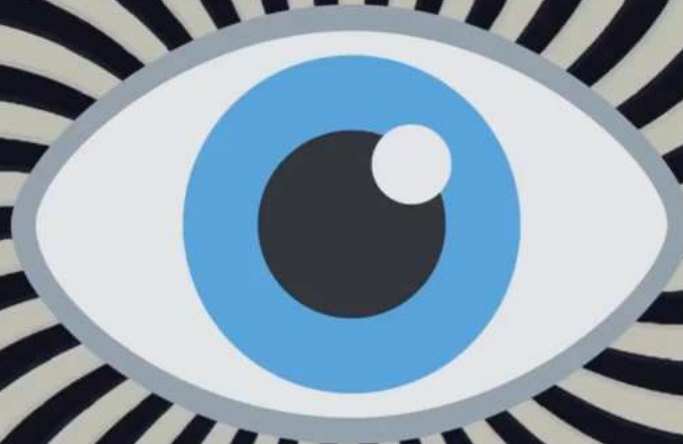


- It is digital **data storage technique** that stores up to **450 GB** on just a **piece of paper**.
- As the name implies, **data is stored in the form of color combinations** and some symbols known as rainbow format and finally, a rainbow picture is produced.
- Text , image, audio/video files are encoded as coloured circles, triangles, squares and so on.
- The storage disk from paper developed using this technology is termed as **RVD** (RAINBOW VERSATILE DISK) similar to CD/DVD.

OPTICAL ILLUSION

The information gathered by the eye is processed by the brain creating a perception that in reality does not match the true image.

TOP 5 EYE ILLUSIONS



**THAT WILL BLOW
YOUR MIND**

LET WE EXPLORE

PHYSICS

IN EVERY

ACTION!!!!!!

THANK YOU ALL