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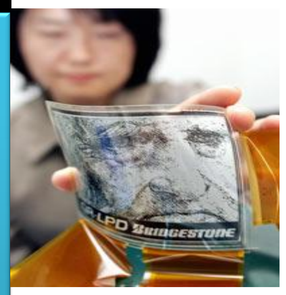
NANO IN MY LIFE

Nanotechnology is present is every part of our life - it is our life.
It is changing the way we live from the cosmetics we use, the medicines we take, the clothes that we wear and our phones, iPods and laptops.

What Is Nanotechnology?

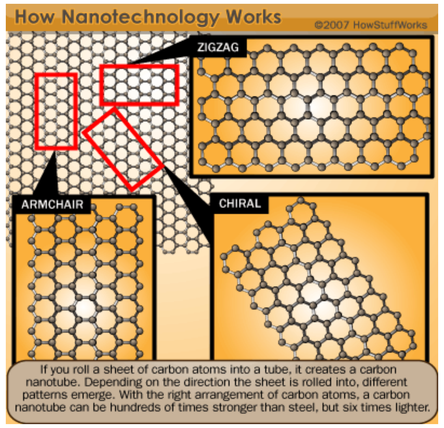
Nanotechnology is the science and technology of very small things.

- A nanometre (nm) is 1 million times smaller than a millimetre.
- A human hair is around 50,000 nm thick, a red blood cell is 2,500 nm wide.



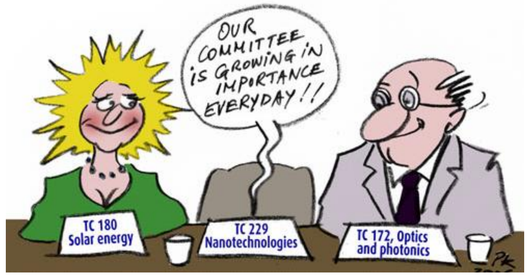
Bridgestone engineers developed this Quick Response Liquid Power Display, a **flexible digital screen**, using nanotechnology.

Did You Know?
iPods use nanotechnology to store large amounts of music in small devises
Butterflies use nanoscience to trap iridescent colours on their wings.



Medicine : Antimicrobial bandages - Scientist Robert Burrell created antibacterial bandages using **nanoparticles** of silver. Silver smothers harmful cells, killing them.

Scratch Resistant Coatings :
Engineers discovered that adding aluminium silicate **nanoparticles** to scratch-resistant polymer coatings made the coatings more effective, increasing resistance to chipping and scratching.



Sport : Tennis
The tennis racket company Babolat introduced the VS **Nanotube** Power racket. Meaning the racket was very light, yet many times stronger than steel. Tennis balls have a coating of clay **nanoparticles** on the inner core. The clay acts as a sealant, making it very difficult for air to escape the ball.

Future of nano: Nanotechnology will replace magnetic disk drives in iPods, laptops and servers within five to 10 years, making them more durable, lighter and faster. That's according to Michael Kozicki, a researcher at Arizona State University who is developing ways to store data in **nanowires** instead of as electrons in cells. He's also researching ways to stack multiple layers of memory on top of a single layer of silicon.

Nano-soccer : Imagine a robotic David Beckham six times smaller than a blob playing with a soccer ball no wider than a human hair, with all of the action happening on a field the size of a single grain of rice.
Its the latest team sport for universities with programs in micro-electro-mechanical systems (MEMS).
The soccer **nanobots** are operated by human players via remote-controlled electric and magnetic fields. The human players view the competition through an optical microscope.

Nanotechnology in Cosmetics :
making products with nanoparticles that can go deeper below the skin's surface to give better results. Sunscreens and some anti-aging products are the main cosmetic products currently being made using **nanotechnology.**

Clothing :
Scientists are using nanoparticles to enhance your clothing. By coating fabrics with a thin layer of zinc oxide nanoparticles, creates clothes that give better protection from UV radiation. Some clothes have **nanoparticles** in the form of little hairs that help repel water and other materials, making the clothing stain-resistant.