StoryScience Newspaper

“Fresh Science Wonders – Every Week!”

Explaining how things work – for curious kids

✈️ How Does an Aeroplane Fly?

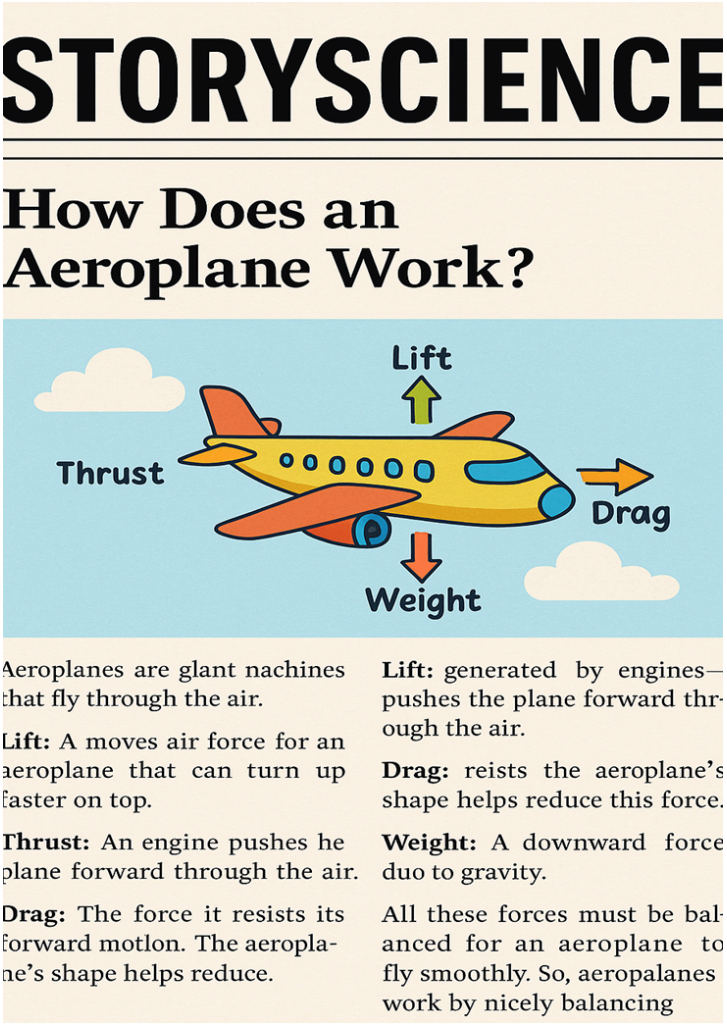
An aeroplane is very heavy — sometimes it weighs as much as 100 elephants! Yet it soars across the sky. The secret lies in its wings, engines, and the air around us.

🌬️ The Secret of the Wings

The top of a wing is curved, the bottom is flat. Air goes faster above, slower below → pressure difference pushes the plane upward. That’s Lift!

🚀 The Four Forces

Lift (up), Weight (down), Thrust (forward), Drag (back). When Lift beats Weight and Thrust beats Drag, the plane flies.



STORYSCIENCE

How Does an Aeroplane Work?

Aeroplanes are glant nachines that fly through the air.

Lift: A moves air force for an aeroplane that can turn up faster on top.

Thrust: An engine pushes he plane forward through the air.

Drag: The force it resists its forward motlon. The aeropla-ne's shape helps reduce.

Lift: generated by engines— pushes the plane forward thr-ough the air.

Drag: reists the aeroplane's shape helps reduce this force.

Weight: A downward force duo to gravity.

All these forces must be bal-anced for an aeroplane to fly smoothly. So, aeropalanes work by nicely balancing

🕹️ How Pilots Steer

- Ailerons tilt left/right
- Elevators move nose up/down
- Rudder helps smooth turns

⚡ Engines – Jet engines suck in air, mix it with fuel, burn it, and push gases backward. That pushes the plane forward, like a balloon zooming when air escapes.

🌍 Fun Facts

- Wright brothers' first flight (1903) lasted only 12

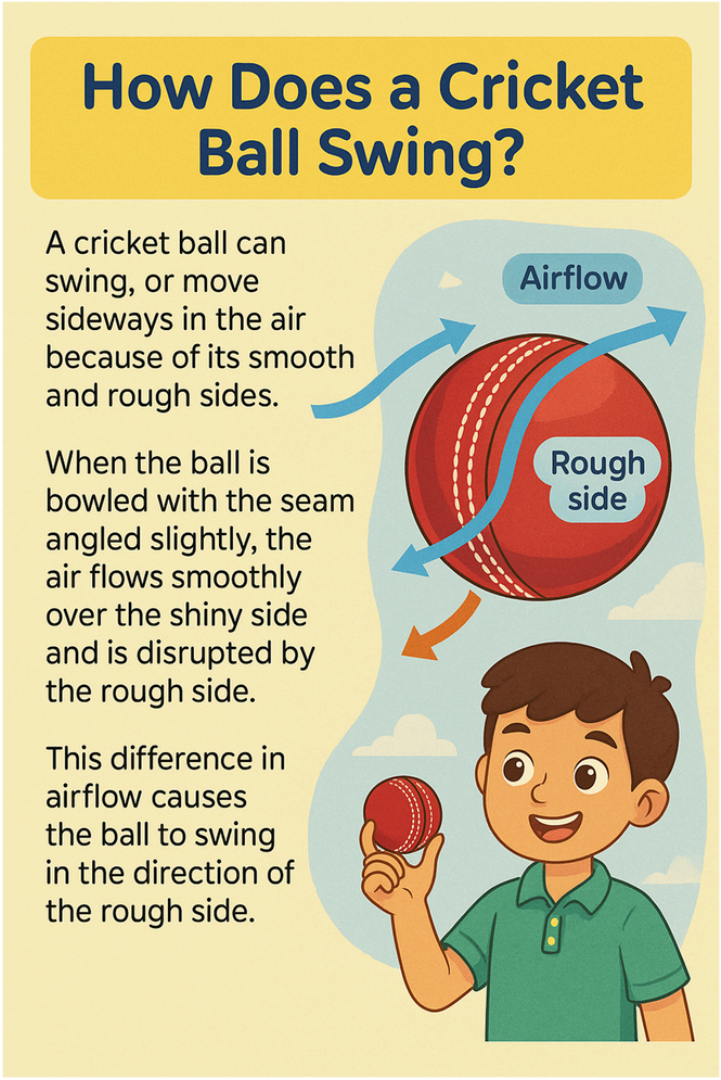
sec.
- Concorde flew London–New York in 3.5 hrs.
- A jumbo jet has over 6 million parts!

🧪 Try It Yourself
Fold different paper planes. Notice which flies longest. Blow over a curved cardboard wing — it rises!

Why Does a Cricket Ball Swing?

Swing Kings
- Wasim Akram – Sultan of Swing
- James Anderson – England's swing master
- Bhuvneshwar Kumar – Indian outswing star

🏏



The cricket ball can curve in the air! That's swing bowling.

⚖️ Two Sides of the Ball

- Shiny side → air moves fast

- Rough side → air slows

This difference makes the ball bend.

🌬️ Conventional Swing

A new ball swings towards the rough side. Seam tilted helps airflow.

🔄 **Reverse Swing**
When old and rough, the ball swings the opposite way — towards the shiny side. Hard to master!

🌟

🧪 **Try It Yourself**
Tape one side of a tennis ball. Bowl fast — it swings!

🤓 **Fun Fact**
Only sweat/saliva allowed for shining. Anything else = tampering.

😮 Why Do We Get Hiccups?

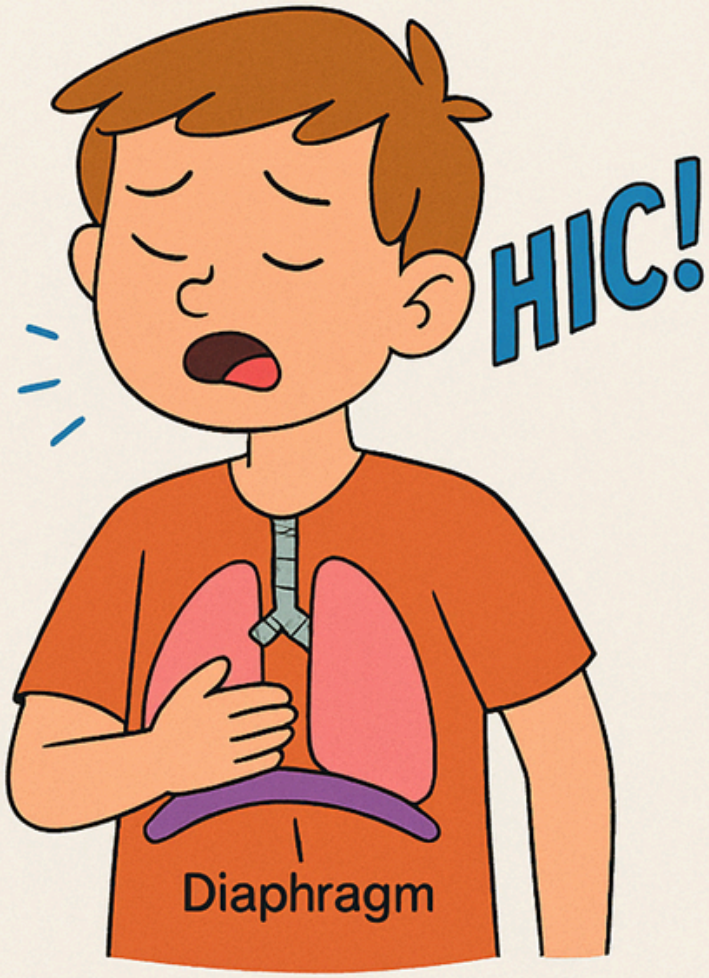
Ever been drinking soda, laughing, and suddenly HIC! That’s your diaphragm.

Why Do We Get Hiccups?

Hiccups are sudden, involuntory contractions of the diaphragm—a large, dome-shaped muscle below the lungs—ind a trampoline-like-surface under the lungs.

It can orcur when irritate diaphragm, and increases can quickly such as some triggers, drinking fizzy beverages or sudden excitement.

Hiccups usually last usually a few minutes. One may be helpful for help stop them. such as holding your brath, drinking water, or swallowing a teaspoon of sugar.



🫁 **The Diaphragm**

Dome-shaped muscle below lungs.

Inhale → moves down. Exhale → moves up. Like a trampoline.

⚡ What Happens?

The diaphragm jerks suddenly. Air rushes in.
Vocal cords snap shut → HIC sound!

🍔 Causes

- Eating too fast
- Fizzy soda
- Laughing too much
- Sudden hot/cold change
- Excitement

📖 Record

Charles Osborne hiccupped for 68 years!

🧪 Stop Hiccups

- Hold breath 10 sec
- Drink water slowly
- Deep breathing
- Distract yourself

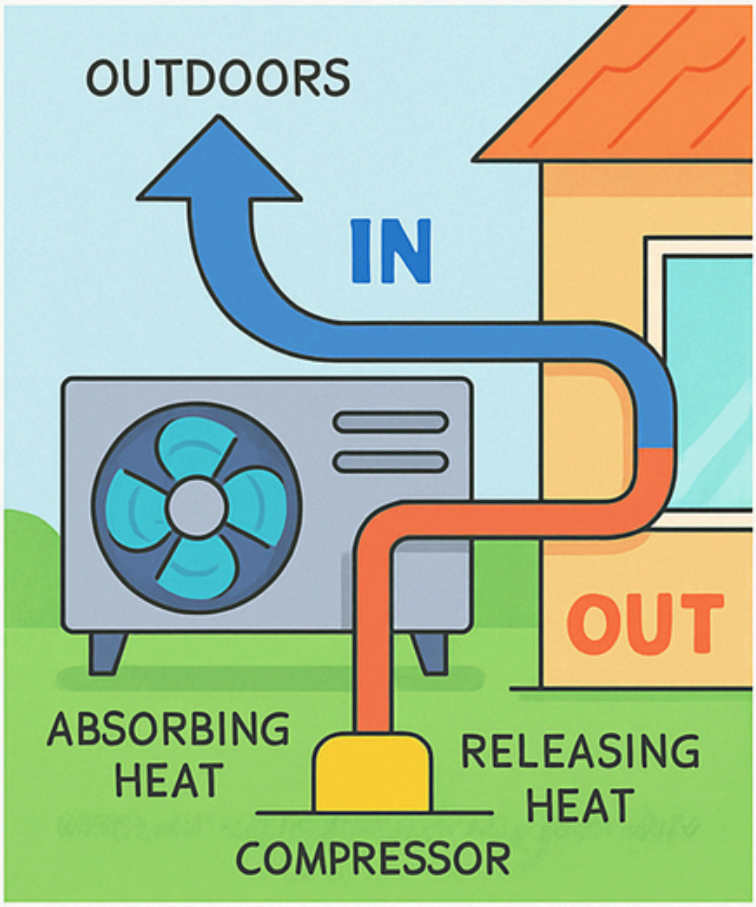
🤓 Fun Fact

Even cats and dogs get hiccups!

🔥❄️ How Does a Heat Pump Work?

Touch the back of a fridge — it's warm. Stand by an AC — it's cold. Both are heat pumps.

How Does a Heat Pump Work?



A heat pump is a device that can warm up house in winter and cool it in summer. It moves heat instead of making it.

It moves heat instead of making it.

Heat pump tro called a compressor that squeeze the heat, making it alter.

It happens on the ouiside air, even when it's cold.

So, heat pum comes up. The pump releases it hot- – and heat from inside – to outisstasor air inside the house. It in the heat, in summer is good.

On summer, mou move heat from inside to house – by moversing heat from inside to outside, make house comfort able.

🌡️ Moving Heat

- Winter: pull heat from outside to inside
- Summer: push heat from inside to outside

💧 Refrigerant

Changes to gas → absorbs heat. Back to liquid → releases heat. Like a messenger carrying heat.

🔄 Cycle

1. Absorb heat
2. Compressor pushes it
3. Drops heat
4. Repeat

⚡ Why They’re Smart

- Give 3x more heat than electricity used
- Found in fridges, ACs, geysers

🧪 Try It Yourself

Touch fridge back. Inside cold because heat moved outside.

🤓 Fun Fact

Heat pumps work even in snow!

🌟 Fun Science Facts

🌌 **Neutron stars are so dense a sugar cube weighs a mountain.**

🐙 **Octopuses have three hearts.**

⚡ **Lightning is five times hotter than the Sun's surface.**

🕰️ **The first alarm clock only rang at 4 a.m.!**

🌻 **Sunflowers follow the Sun across the sky.**

🧩 StoryScience Quiz

1. Why does a football curve when a player kicks it with spin?

a) Because the ball is lighter in the air

b) Because spinning changes the air pressure around the ball

c) Because the ground pulls it sideways

Answer: b) Because spinning changes the air pressure around the ball

2. Why do astronauts float inside the International Space Station?

a) Because there is no gravity in space

b) Because they are always falling around the Earth

c) Because the ISS pushes them upward

Answer: b) Because they are always falling around the Earth

3. Which of these animals can see ultraviolet light that humans cannot?

a) Dogs

b) Bees

c) Elephants

Answer: b) Bees

4. What happens if you go deep underwater without proper gear?

a) Your body shrinks

b) The pressure increases and can crush your body

c) Gravity stops working

Answer: b) The pressure increases and can crush your body

5. Why do rainbows always appear opposite the Sun?

a) Because raindrops shine like small mirrors

b) Because raindrops bend and reflect sunlight back to your eyes

c) Because clouds push the light backward

Answer: b) Because raindrops bend and reflect sunlight back to your eyes

6. Which part of the human body has no blood supply of its own?

a) The cornea of the eye

b) The liver

c) The skin

Answer: a) The cornea of the eye

---Meet the Creator

🌐 **www.storyscience.in**

✉️ **karwajay@gmail.com**

📞 **9096833047**

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