



HOUSE OF WONDERS · FOR YOUNG READERS

A Tiny Astonishing Biological Engine

Meet the hummingbird – nature's smallest marvel of flight

BY ZIA-UR-REHMAN

Children, today we are going to tell you about a creature lighter than a single teaspoon of sugar, yet one that hides astonishing power within it. This is the hummingbird – the only bird in the world that can fly not merely forwards, but backwards, upwards and downwards too, defying the ordinary rules of aerodynamics. It can even hang motionless in mid-air, exactly like a helicopter.

The hummingbird's wings trace the shape of a figure of eight as they move, and it is this that allows it to hover in place. Its heart beats an astonishing 1,200 times a minute, keeping its wings in constant motion. More remarkable still, its heart makes up around 10 per cent of its entire body – proportionally the largest heart of any living creature. Its wings beat 80 times every second. Their feathers are not actually coloured at all; rather, they appear to shimmer in different hues simply because of the way light strikes them from different angles.

DID YOU KNOW?

- Its wings move in a figure-of-eight pattern to keep it hovering.
- Its heart is about 10% of its body weight – the largest in proportion of any animal.
- Its wings beat roughly 80 times every single second.



- Its dazzling colours come from light, not pigment.

It flies at astonishing speed even through the rain. Raindrops present no difficulty for it at all, since water cannot settle on its wings — it slides straight off. Its ordinary flying speed is somewhere between 40 and 55 kilometres an hour, but when it dives, that speed can climb as high as 90 kilometres an hour.

Relative to the size of its body, then, the hummingbird ranks among the fastest creatures on Earth. Remarkably, at night, when its energy reserves run very low, this little bird slips into a temporary sleep-like state, known to science as torpor. This state lasts only a short while, allowing it to conserve its energy so that it can rejoin the race of life again the very next morning.

*Such a tremendous biological engine, packed into so tiny a body,
is the craftsmanship of Allah, the Creator of the universe, who
has fashioned every single thing with perfection.*

