



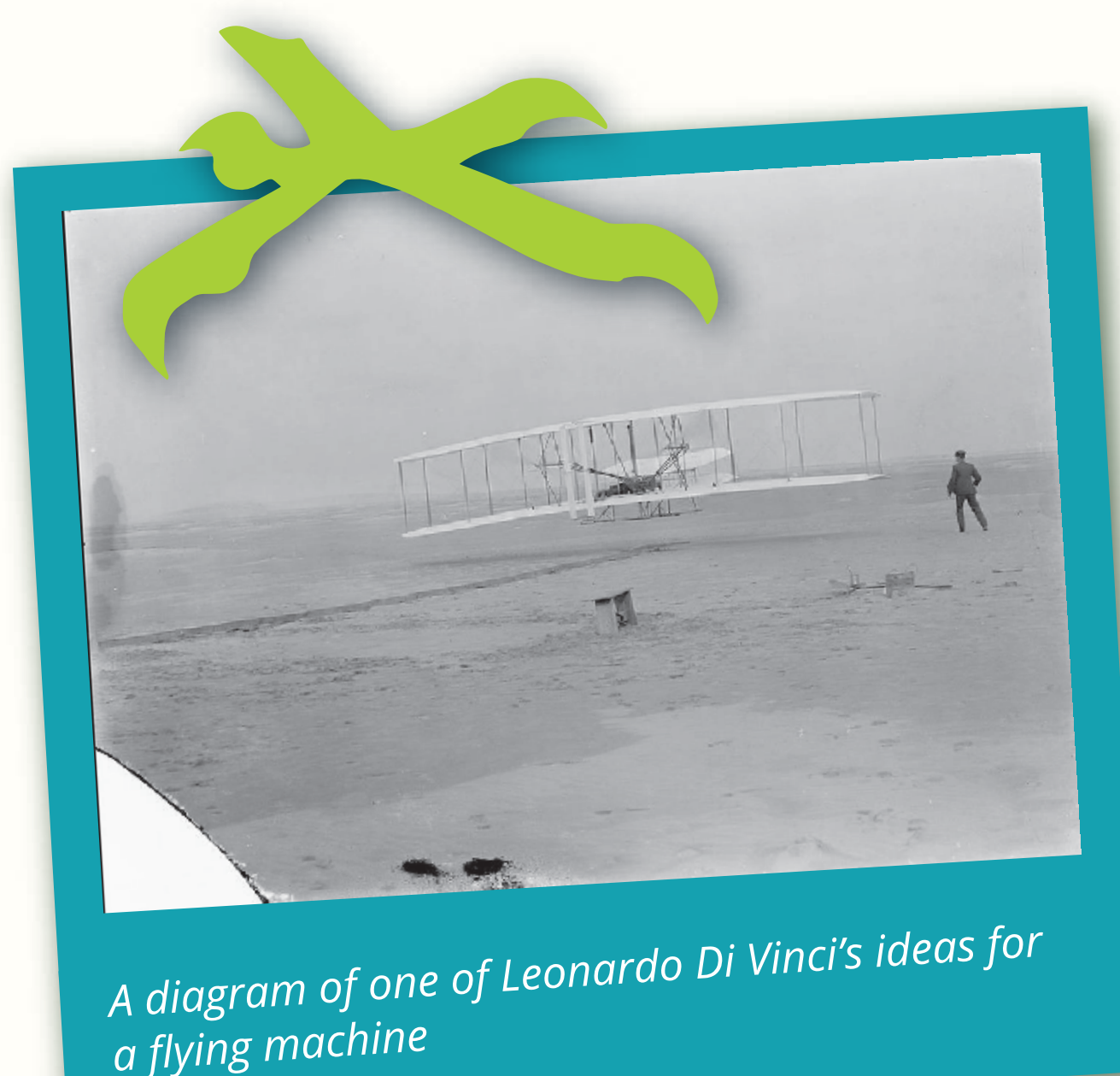
## Have you heard the expression 'bird-brained'?

It's used to describe someone as being foolish or scatterbrained. But birds are far from foolish! Their behaviours are tremendously diverse, and all are meant to ensure their survival. Let's learn some wisdom from the birds of the world – at the Wild Wisdom Global Challenge 2023!

People around the world have long been fascinated by these creatures of the air, with eagles, doves, and other birds inspiring art, poetry, and music, and birds like cranes, falcons and parrots found in ancient cave paintings, Egyptian pyramids, and other historical monuments.



Wandering albatross: Huge wingspan of almost 3.5 metres; circles the globe during migrations



A diagram of one of Leonardo Di Vinci's ideas for a flying machine

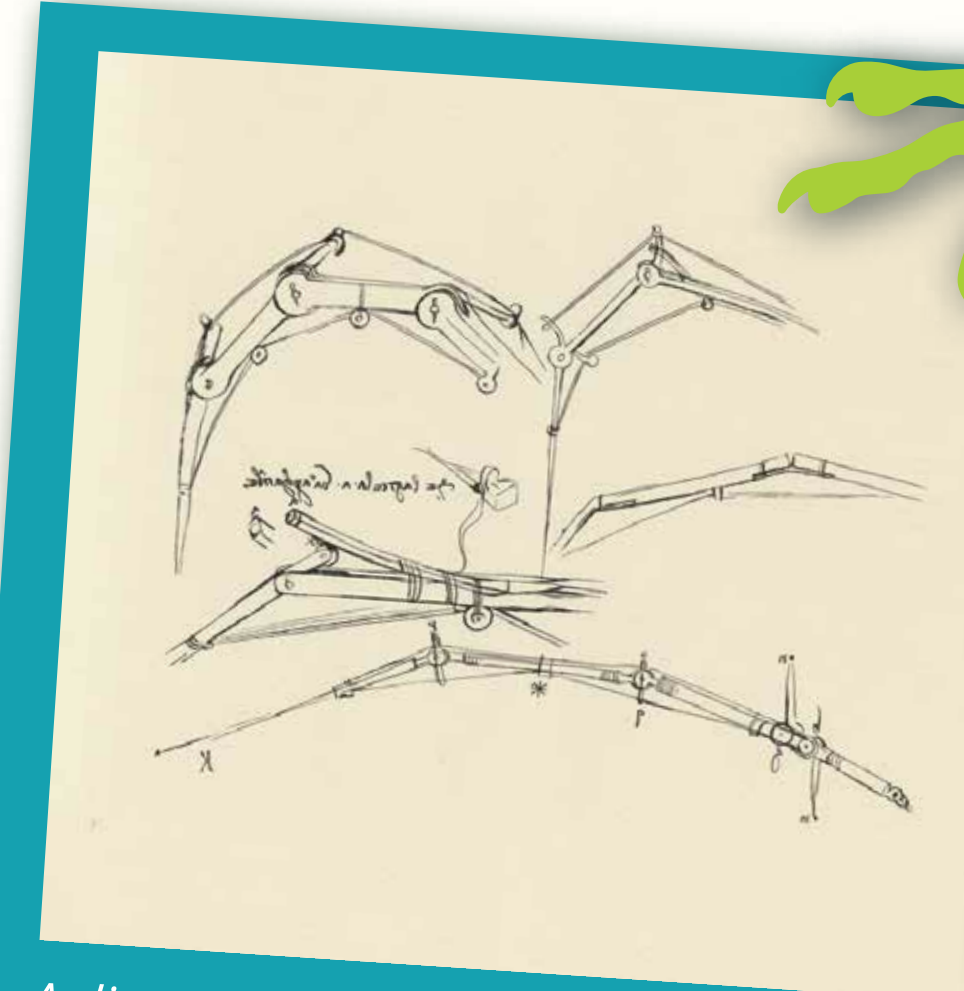
Birds have even inspired the design of flying machines that evolved into our modern-day airplanes!

## Masters of survival, birds are adapted for life in the air, on land, and in water.

Flight is one of the most important adaptations in birds as it allows them to catch food, avoid predators, find mates, and travel long distances or migrate. For example, great frigatebirds (*Fregata minor*) can sleep during mid-flight without falling out of the sky!

### So, what makes a bird a bird?

- ✓ Its front limbs are modified into wings.
- ✓ It has feathers—the only animal in the animal kingdom to do so.
- ✓ It reproduces by laying eggs.
- ✓ Most can fly. Some species have evolved and adapted to lose the power of flight.



A diagram of one of Leonardo Di Vinci's ideas for a flying machine

## BIRDS: NATURE'S FLYING MACHINES

- ✓ Strong bones, hollowed with pockets of air
- ✓ Powerful chest muscles to move the wings
- ✓ Long flight feathers on wings and tail to help balance and steer
- ✓ Wings with front edge thicker than back edge to create lift
- ✓ Air sacs connected to the lungs to help get more oxygen with each breath
- ✓ Powerful four-chambered heart for efficient circulation of oxygen-rich blood
- ✓ Digestive system that allows eating when possible and digesting food later



### Did you know?

Insectivorous birds are farmers' allies, eating 400 to 500 million metric tonnes of insects and other arthropods every year.

Birds play an essential role in their ecosystem as pollinators, seed dispersers, predators, scavengers, and ecosystem engineers. Through their flight, they link distant ecosystems and help in the cycling of nutrients.

### Birds are the pulse of the planet

Birds are widespread, easy to identify and count, and responsive to changes in their environments. Changes in bird numbers and distribution can reflect trends in ecosystems, making these animals excellent ecological indicators. Changes in the bird populations are often the first indication of environmental problems.



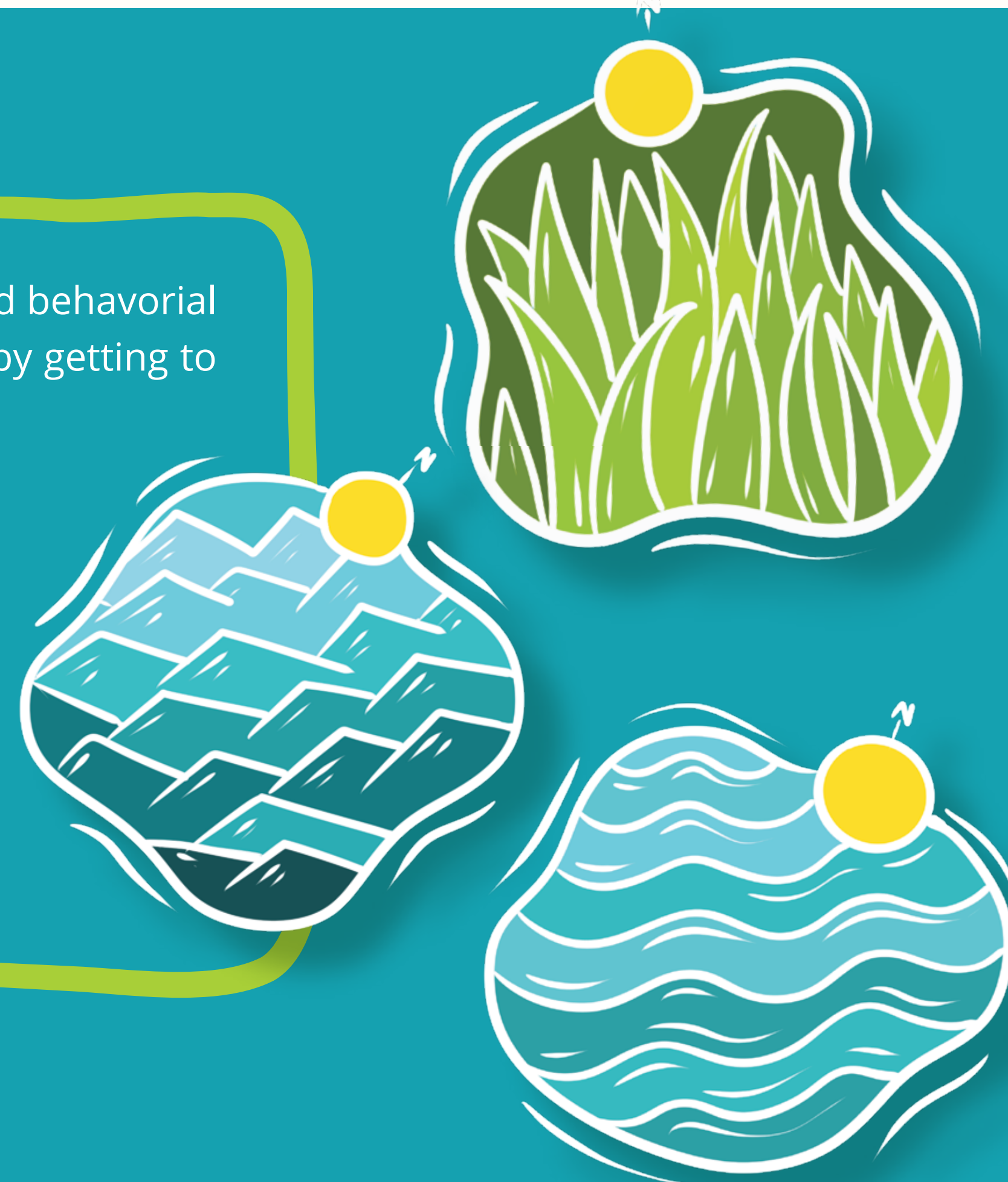
### Did you know?

The record for the longest continuous bird flight was set by a five-month-old bar-tailed godwit in 2022. It flew around 13560 kms from Alaska to southern Australia in 11 days and 1 hour!

## WILD WISDOM GLOBAL CHALLENGE 2023

The Wild Wisdom Global Challenge 2023 will explore the astoundingly diverse physical and behavioral adaptations and survival strategies of birds around the world. Gear up for the challenge by getting to know these aspects of our feathered friends better.

- ✓ The evolution of birds from around the world
- ✓ Physical features and life cycles
- ✓ Adaptations to habitat and climate
- ✓ Adaptations for finding food
- ✓ Flight, migration and locomotion on land and in water
- ✓ Behavioural adaptations: Reproductive behaviours such as courtship rituals, nesting, parental care of the young etc.



Sign up for this adventure and expand your knowledge of our feathered friends, and do your part to keep them soaring high now and in the future.