



CAPTAIN CURIOSITY'S GUIDE TO THE UNIVERSE

Topic: Birds & Flight

EVER WONDER IF ALL BIRDS CAN FLY? About 99% of all birds can fly – but about 40 species can't. For example, the emu, ostrich, kiwi and penguin can't fly. To fly, a bird needs to have the right combination of feathers, wing size, body size, body shape, and tail. A few birds just don't have the right combination of things to fly!

EVER WONDER IF ALL BIRDS HAVE FEATHERS? Yes, all birds have feathers. Feathers help birds fly and stay warm and dry. All birds also have beaks, wings and tails, but some other animals have these things too. Feathers are the one thing that birds have that no other animal in the animal kingdom has!

EVER WONDER IF ALL BIRDS HATCH FROM EGGS? Yes, all birds also hatch from eggs. But this is not quite as unique. A few other animals (such as alligators and crocodiles) hatch from eggs.

EVER WONDER IF BIRDS ARE THE ONLY ANIMALS THAT CAN FLY? Only birds have feathers, but lots of animals can fly. Think about the flying insects all around your house, like bees, beetles and dragonflies. There is also a mammal that can fly: the bat!



EVER WONDER WHY AIRPLANES AND BIRDS LOOK SO MUCH ALIKE? Scientists and engineers studied flying animals, like birds, to learn how to make airplanes. They learned that, in order to fly, an airplane must have the right wing shape, tail shape, body shape and overall weight. That's why airplanes look so much like birds!

EVER WONDER WHAT THE SMALLEST BIRD IS? The smallest bird is the bee hummingbird. It's about the size of a bumble bee! It lays eggs about the size of a coffee bean.

EVER WONDER WHAT THE LARGEST BIRD IS? The biggest bird is the ostrich. It stands about nine feet tall. Ostriches also lay the biggest eggs (about the size of your head!).

You Can Do It!

With your grownup, practice folding paper into airplanes. Try different designs to see which ones fly the farthest! Can you make yours do tricks, like spinning or flipping? Try adding weights like paperclips, or folding flaps into the wings. A great online resource for paper airplane designs is www.funpaperairplanes.com. On a nice day, take a walk and look for the birds that live in your neighborhood. Watch them fly, and think about what makes them special!

