

# Feather Feature

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Find a feather, the long, straight kind that people used to write with.

Start at the tip and run your fingers to the bottom of the feather. That makes it scraggly, doesn't it? Now run your fingers from bottom to top. That zips it back together again.

Put a drop of water on your zipped feather. It doesn't seep through. Now unzip the feather. Put another drop of water on it. The water seeps through an unzipped feather, doesn't it?

When a bird preens itself (pulls its feather through its beak), it zips its feathers. Although the bird doesn't understand what it is doing, it is helping to make itself waterproof. Who gave the bird its instinct to zip its feathers?

Look closely at feathers. Can you see that each side of the main vein holds hundreds of little "hairs"? They're called barbs, and they're not at all like hairs.

If you can, put your feather under a microscope. You'll see that each barb looks like a tiny feather in itself. Each hair-like barb has hundreds of smaller hair-like barbules sprouting from its sides. Their barbules overlap each other from barb to barb in a neat pattern. There must be thousands of barbules on this feather. But that's not the end!

Look closely at the barbules; they have tiny hooks and loops on them. The hooks on one barbule overlap the loops on the next barbule. Those millions of hooks and loops all fit together.

That's why you can zip and unzip a feather. The barbules hook and unhook. Every stiff feather like this one contains hundreds of barbs, thousands of barbules, and millions of hooks and loops. Together, they make a waterproof feather. Do you think that a feather like this could have happened by accident? Who made such an intricate feather?

Take the feather from the microscope and look at it again. Is it uneven? Are the "feather parts" on one side of the vein longer than the feather parts on the other side of the vein? If so, then you are holding a flight feather. It came from a bird's wing.

This feather was placed into the wing so that the shorter "feather part" was in front when the bird flew. The longer "feather part" was behind the shorter part. The shorter part is concentrated, to cut into the wind. The wider part is large and smooth, so that air flows over it easily.

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*Ask the birds of the air, and they will tell you...or let the fish of the sea inform you.  
Which of all these does not know that the hand of the Lord has done this?  
(Job 12:7-9)*

Now, if you can, pull a feather from an old pillow or an old down jacket. Is this feather at all like the first feather you looked at? Not at all! Try to zip and unzip this feather. Will it stay zipped? No, it was not made to be zipped.

If you can, put this feather under a microscope. Do you see any barbs and barbules? Are there any hooks on this feather? Probably not. That's because God made this feather for a different purpose.

This down feather keeps the bird warm. It grows very close to the bird's body. Usually, it's under the other feathers. This down feather helps trap warm air and keeps it close to the bird.

Can you see all those soft downy "hairs" on this feather? See how they almost become tangled with each other? Warm air also becomes tangled into the feather so the bird always has a special "blanket" of warm air about its body.

Do you think that a down feather grew by accident? Who made sure that all His birds were kept nice and warm?

Try to pull a few more feathers from your pillow. Look for a feather that seems to be a flight feather on the top of the vein and a down feather at the bottom of the vein. Look closely at this feather. Does it look like a flight feather? Not exactly. Does it look like a down feather? Not exactly. It looks like a combination of both, doesn't it?

That's exactly what this feather is. This is a contour feather. The top part, which looks like a flight feather, is made as an outside cover on the bird's body. The bottom part, which looks like a down feather, is made to stay close to the bird and keep it warm.

Try to zip the top of the feather. You probably can zip that part, because that part must be waterproof. It's part of the bird's outer coat.

Try to zip the bottom of the feather. You probably can't zip that, because it's made like a down feather. It's for heat, not to be waterproof.

Could a bird have grown these feather by accident? Of course not! God gave each bird just the right feathers in just the right places.

Now, look at your flight feather one more time. Hold it up near your shoulder as if it were in a wing. Can you figure out if it came from the left wing or the right wing of a bird? We'll pretend that it came from the right wing.

When a bird lost this feather, it probably lost a feather from its left wing too. Birds lose their flight feather in pairs. They always have the same number of feathers on each wing that way they always stay balanced when they are flying.

Birds which fly to find their food can always fly, even when they're molting. Blue jays, cardinals, hawks, and owls fly to find food. Because they lose their feather evenly, they can always fly perfectly.

Ducks, geese and other birds lose more of their flight feathers together. They often can't fly when they're molting. But, they live near water and find their food in and on water. They walk and swim to their food. They don't depend on flight to find food.

But, when they are molting, they can't fly from danger. So God gave some of these birds a different color, only when they molt. At that time, they blend with the reeds and bushes nearby. Enemies can't see them so they are well-protected.

Penguins lose all their feathers at once when they molt. They can't possibly fly. But penguins never fly. And, when they lose their feathers, they put on an extra layer of fat. That keeps them warm without their feathers.

Birds which stay in cold climates throughout the winter put on extra feathers during autumn. Some sparrows put on almost 400 more feathers before facing a cold winter. In this feather coat, a sparrow can stay warmer than we can during a snowstorm.

Every bird changes its feathers in exactly the right way. No bird is left helpless. No bird is left without food. No bird is left with too many or too few feathers. Certainly, the birds don't do this by themselves. Who cares for these birds?

Birds which incubate eggs are usually colored more drably than those which don't.

By instinct, a bird pulls feathers from its belly before it incubates eggs. The eggs then are closer to the bird's warm body.

Birds which nest in trees are usually helpless when they hatch. They are protected by their hiding places in trees. Birds which nest on the ground usually hatch with eyes open and ready to leave the nest. They must leave soon, to escape enemies.

We could continue, but time and space don't allow. By now you understand the point. Each bird was given exactly what it needs for its way of life. Each bird is well-protected, well-cared for.

Of course, God made all birds and cares for them. God gave them their feathers and their instincts. God said that He does not forget one of His sparrows. That's evident in the care that He gives all His birds.

That same God, who cares for each and every bird, has also said, "Indeed, the very hairs of your head are all numbered. Don't be afraid; you are worth more than many sparrows." (Luke 12:7)