



KIDS THINK AND BELIEVE TOO!

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HUMMMMMM?

They can rush towards the ground in a blurring nose-dive, screech to a complete stop inches from crashing, hover, and dash off at top speed. At high speeds they can change directions on a dime. To escape an enemy, they can fly backwards, flip over into a somersault, fly upside down, roll upright and charge away, all in **two-tenths of a second**. That is faster than you can say your name! Is this some incredible helicopter designed by the government? No! This is a bird. A bird that is unique and different from other birds. This is a **hummingbird!**



As you can see, hummingbirds are the trick fliers of birds. With their tiny, weak, perching feet, the only way to get around is to fly! To take to the air, they just flap their wings at high speeds and fly; no jumping or running required. They can fly backwards, forwards, sideways, hover, spin, roll, and even fly upside down! Hummingbirds are able to do all these stunts because of their special **design**. Their wings are attached to a special swiveling shoulder joint. Hummers wings can move forward and backward as well as tilt and rotate 180 degrees. To hover, the hummingbird flaps its wings **50 times a second** in a **figure-8 motion**, turning the wings completely over on the front and back sweeps. This holds them in the air, but in the same place. Then in a blur of light and a whirl of sound the hummer can dash, dart, and dive-bomb away.

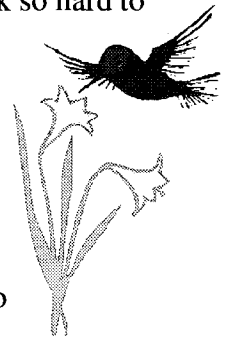
The hummingbird needs to eat a lot of **calories** (food) to supply the energy for their busy, bustling activities. They sometimes eat **5 times** their body weight in one day. To equal a hummingbird's calorie

intake, a child weighing **70 pounds** would have to eat about **62,000 calories** a day. That is equal to about **388 bowls** of Frosted Flakes cereal (with no-fat milk)! Or **177 candy bars** that contained 350 calories each! They get most of their calories from flower **nectar**. The hummingbird might go to **1,000 flowers** a day to get the calories he needs. They will feed for 10 to 15 minutes then rest awhile as the food

digests. Amazingly, hummers do not live on nectar alone, but also need **protein**. To get their protein they eat **insects!** Sometimes they eat insects trapped in nectar or tree sap, but they can also pluck flying insects from mid-air! Not many bugs can out-fly a hummingbird.

During cool nights or cold weather, the hummer will become **dormant** to save energy. For brief periods they slow their **metabolism** (how fast calories are burned). Their body temperature will drop from 104 degrees to 75 degrees and their pulse drop from 1,200 beats a minute to 36. This helps the hummingbird conserve some of the energy it has to work so hard to get.

The long tongue and bill are well designed in hummingbirds. The end of the tongue is curled into two **tiny tubes** which soak up the nectar like a sponge. They don't suck nectar through their bill like a straw, but actually lap it up. They also have **barbs** on the tip of the tongue to snag the insects in the nectar.



Another amazing design in hummingbirds is their **color**. Sometimes when you look at a hummer he might look dull and dark, but at other times that same bird will blaze and glitter with color. If you took the hummingbirds feather and ground it up to a powder, you would find no color. The color of the feather doesn't come from a pigment, but actually comes from layers of **air-filled plates**.



These plates reflect light like tiny **prisms**, making a beautiful, bedazzling blaze of color. So why do hummers hum? Because they don't know the words! Actually, hummingbirds can whistle and chirp, but the hum comes from their feathers. Special **tapered feathers** at the tip of the wings make slots that the wind whistles through when they fly. A male may whir his wings **100 to 200 times a second**

when courting the females! He really hums!

No person could have planned a creature like the hummingbird. We can design helicopters and other flying machines, but even as incredible as some of these helicopters are, they are still just poor copies of the bird they try to imitate. No one would argue that helicopters were not designed by intelligence, yet evolution would teach hummingbirds happened by chance and accident! No way! The hummingbird demands a **Creator!** And that Creator is the Lord God! **“And out of the ground the LORD God formed every beast of the field, and every fowl of the air;” Genesis 2:19a**



ASK EUGENE

Dear Eugene, What do you think about the theory that all the continents at one time, were connected together as one land mass?
Amanda Taylor (age 12, Galeton, CO).



Dear Amanda: Wow, what a good question! The answer is worth a whole Kids Think and Believe article, so I will do more research and do the next article on this very subject. Meanwhile, let me share just a little about what I feel.

*The idea that all the land was one continent at one time would mean that this one continent would have had to break up and the different pieces “drift” or float away from each other. The **Theory** of Continental Drift, though very popular, is just a theory or an idea. There are no unquestionable “proofs” to show this idea is true or false. Some say that they can measure how much the continents are moving today, but these measurements are debatable. What would make these huge land masses move? What’s the energy pushing them?*

*But most important, what does the Bible say? Actually, the Bible does not talk about drift directly. Psalms 104 talks about God pushing up the mountains and dropping the ocean beds to put the Flood waters back in their place. Maybe if Continental Drift did happen, this is when it did. But is it happening today? The Bible doesn’t say. Watch for the next Kids Think and Believe and we will explore it some more....Meanwhile, if you can’t wait, an excellent book to find some of the answers about Continental Drift is **THE ANSWERS BOOK**, by Ham, Snelling, and Wieland, published by Master Books. This book*

*has lots of answers to the most asked questions about evolution and Creation. You can order **THE ANSWERS BOOK** through us at Alpha Omega. Just go to our web page at www.discovercreation.org Thanks Amanda....Love Ya...Eugene.*

Dear Eugene: **GOD’S CREATION**

God made the heavens and the earth because he loves me. I believe this with all my heart.

I came from God and not from mush. Some people say I came from monkeys, but it is not true. God made man in His own image and I believe that God made me in His own image, not monkeys.

Every time I go outside I see God’s work all around me. Walking down the trail at camp I saw squirrels stop and stare at me.

The Bible says in Revelations 4:11, **“You are worthy, our Lord and God, to receive glory, and honor, and power, for you created all things.”** Carol Osgood (age 9).

Dear Eugene: **FOSSILS AND ME**

Fossils are made from a lot of mud and a lot of water. Fossils can be found everywhere.

Most everything can be fossilized like bones, teeth, animals, fish, shells, flies and much more.

Indians found all kinds of bones and fed them to their dogs. Research has found out that they were dinosaurs bones and were not old.

Some people think fossils are millions of years old. The Bible says God made a big flood and wiped out everything but Noah’s family and some animals. The animals that died were buried under lots of mud and water. They were fossilized.

Evolutionists say I come from monkeys, but God says I was made on the same day as animals. **“The Lord is God; It is He who made us.”** Psalms 100:3 Paul Osgood (age 1)

Dear Carol and Paul: Thanks for your letters and pictures. Tell Garrett that I love his picture of a frog. I hope I can see you all at another camp. I see you still know some of the memory verses I taught you at Camp Redcloud. Love Ya....Eugene

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