

WEIRD AND WONDERFUL

The Mouth-breeding Frog

THE Mouth-breeding Frog lives in the forests of South America. It is also known as Darwin's Frog, because Charles Darwin discovered it during his voyage on *The Beagle* in the 19th century. It is called the Mouth-breeding Frog because of the strange way it rears its young. The female lays about 30 eggs in the leaves on the forest floor, and the male frog keeps guard over them. When the tiny tadpoles inside the eggs begin to move, the male swallows the eggs! The eggs go down into his vocal sac, which means that the frog loses his voice. The eggs stay there until they hatch, then the tadpoles hop out of his mouth and swim away.



Wikipedia photo by Mono Andes

Why does the Mouth-breeding Frog rear its young like this, and how did this strange habit begin? How did the male frogs know they needed to swallow the eggs, and why do the eggs not go into their stomach and get digested?

Charles Darwin's evolution theory can't answer these questions, and since no-one has found any fossils of these frogs, there is no evidence they evolved from anything else. The best explanation is that God created these frogs to live as they do — another of His weird and wonderful creations!

ARE YOU ALIVE TO GOD?



The earth is full of living things

The earth is full of living things, on the land and in the sea. 3,000 years ago, the Psalmist wrote, "Lord, you have made so many things... Look at the sea, so big and wide. Its creatures cannot be counted." (*Psalms 104 24-25*). You are part of the life on earth, created by God. You have enjoyed living in the world since you entered it as a tiny baby, but are you alive to God? The Bible tells us there are two kinds of life, physical and spiritual. The Bible also tells us that, apart from God, we are "spiritually dead because of the things we did wrong against God." (*Ephesians 2: 5*).

We would never be able to know God and receive His new life if He had not sent Jesus, His Son to earth. But by dying on the cross for our sins, and rising from the dead, Jesus made it possible for us to be forgiven and have God's Spirit living in us. Jesus said, "I came to give life — life in all its fullness." (*John 10: 10*).

We know that our physical life will end some day, but when we believe in Jesus and receive His new life, that life lasts for ever, continuing in heaven when we die. "God has given us eternal life, and this life is in His Son" (*1 John 5: 11*).

Are you alive to God?



You entered the world as a tiny baby

PUZZLE CORNER ANSWERS

Word grid:
"God gave us new life in Christ" (*Ephesians 2: 5*)

Picture quiz:
"Let the water be filled with living things. And let birds fly in the air." (*Genesis 1: 20*)

Scriptures quoted from the International Children's Bible, New Century (Anglicised Edition) copyright © 1991 by Word (UK) Ltd., Milton Keynes, England. Used by permission.

Includes graphics from Clipart.com, Wikipedia.com and Planet-Medien AG.

Our World is published quarterly by the Creation Resources Trust (Reg. Charity No.1016666). Editing, design and layout by Geoff Chapman. Unless otherwise stated, articles are written by the editor. There is no subscription charge, but donations towards costs are invited. For more information about this, and other resources, please contact CRT at P O Box 3237, Yeovil, BA22 7WD, UK. Phone/fax: 01935 850569. E-mail: info@crt.org.uk Web site: www.crt.org.uk © 2007 CRT

Printed by CPO Design & Print, Worthing



The miracle of LIFE

How life on earth began is still a great mystery to scientists who don't believe in creation

OLD, ODD IDEAS ABOUT HOW LIFE BEGAN



A science book written in 1609 told of a strange tree. When leaves fell from the tree, those that fell in water became fish, and those that landed on the land became birds! No-one would believe such a strange idea now — but that was in a science book!

We all know the difference between being dead and alive. But how did living things first appear on earth? Several hundred years ago many people believed that life could just spring up from non-living matter. This idea is called *spontaneous generation*. Some people believed that frogs and worms came out of mud, mice from wheat and old rags, and maggots from rotting meat. But in 1668 Italian scientist Francesco Redi showed that if the meat is covered so that flies can't lay their eggs on it, no maggots will appear.



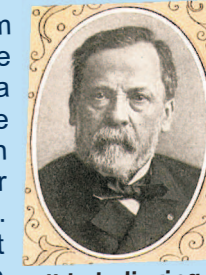
Scientists who showed that life only comes from life



In 1668 Italian scientist Francesco Redi showed that if meat is covered to stop flies laying eggs on it, no maggots will appear.



The old idea that life could come from non-living matter was disproved in the 19th century by Dr Louis Pasteur — a scientist who believed the Bible. He showed that if broth is boiled, then sealed to stop bacteria from the air getting into it, it will stay lifeless. Pasteur wrote: "To bring about spontaneous generation would be to create life. My experiments show that this is impossible."



Bible-believing scientist Dr Louis Pasteur

Still believing in the impossible



Some believe that lightning helped to get life started

Why do many scientists still believe that life can come from non-life? One of them, Dr George Wald, was honest enough to explain why: "I do not want to believe in God. Therefore I choose to believe in that which I know is scientifically impossible, spontaneous generation leading to evolution." Although no-one any longer believes that frogs come from mud or flies from rotting meat, people who refuse to accept creation have come up with other ideas. Some suggest that lightning turned gases into tiny building blocks called amino acids, which fell into the sea and later became living cells. Others believe life came from space! Surely it's easier to believe that "In the beginning God created."? (*Genesis 1: 1*)



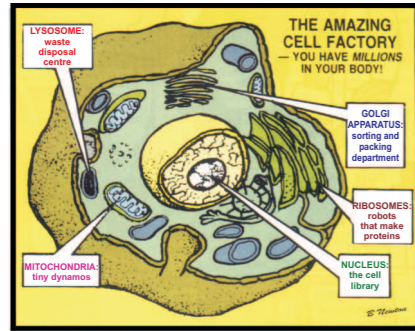
ALSO IN THIS ISSUE:

- Inside the amazing cell factory!
- Lots of information!
- Nature Notes: Bumblebees
- Seeing the invisible world
- Puzzle Corner
- Weird and Wonderful: The Mouth-breeding Frog
- Are you alive to God?

Visit our website: www.crt.org

INSIDE THE AMAZING CELL FACTORY!

IMAGINE that you are going to look around a large factory, and your guide is waiting to explain how everything works. As you walk around, you see complicated machines doing lots of different things, and think how clever everything is. Now, imagine that when your factory tour ends your guide says: "Do you realise this factory just built itself; it just happened! No one designed or planned it!" You would think he was joking. But this is exactly what evolutionists believe about life.



If you could shrink so small that you could only be seen by a powerful microscope you could then have a look at another factory — a **living cell**. All living things, including you, are made up of cells so tiny that you need a very powerful microscope to see inside them. If you could go inside one, you would find that it was more amazing than any factory built by humans. At the centre is the **nucleus** — a kind of library with all the instructions needed to make the factory work, and coded instructions to build a perfect copy of the cell factory itself. Then there are the **ribosomes** — robot-like machines which join amino acids together in the

correct order to make proteins. You would also see the **mitochondria** — dynamos for turning fat and sugar into energy.

In another part of the cell you would see the **golgi apparatus** — machines which sort and parcel up proteins, then either store them or send them to another part of the cell. There are also rubbish collection and recycling machines — **the lysosomes** — which break down and destroy harmful material, and recycle worn-out parts of the cell. These are only a few of the many thousands of working parts of a cell, and scientists are still discovering more. Perhaps the most amazing thing is that a cell can make a perfect copy of itself within a few hours!

This tiny factory is much more wonderful than anything ever made by humans. For one thing it is *alive*. It makes no sense to believe that this amazing little factory just happened. **Someone very wise and powerful must have designed it and made it live, and that Someone is God!**

LOTS OF INFORMATION!

We live in a world where there is lots of information. This can be stored on computers, CDs, and in books. The cell library (nucleus) contains all the information to make a copy of you! Printed out, it would fill the 30 volumes of Encyclopaedia Britannica 3 or 4 times over! Information always has to come from an intelligent mind. The information in the cell's library had to come from a mind too — **the mind of God!**

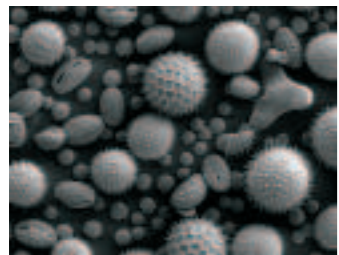


www.crt.org.uk

Nature Notes by the Editor



Photo from Wikipedia by Richard Bartz



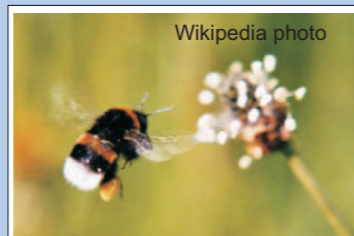
Pollen grains, magnified 500 times (Wikipedia photo)

You may have seen bumblebees buzzing around, collecting pollen and nectar from flowers. Although they do this for their own benefit, they also do the very important job of pollinating flowers. Without bees and other pollinating insects, many flowers would not survive. It is believed that nearly half of the food grown in the world depends on wild bees, including bumblebees.

Bumblebees can fly quite a long way in their search for suitable flowers. Scientists have placed tiny tags on bees, and have been amazed at how far they fly, and how they find their way back to their nests. The tests show that bumblebees often fly up to 5 km (3 miles), and in the longest flight — recorded in the north of England — some bees flew 13 km (8 miles)! Scientists have also found that bumblebees leave chemical "notes" on plants to tell other bees when they have taken all the pollen.

These tiny insects, and the plants which depend on them, point to the work of a wise Creator.

—Geoff Chapman



A bee hovering by a flower

Seeing the "invisible" world

Microscopes enable us to see things which are too small to see with our eyes alone. Although microscopes were invented a few years before he was born, Dutchman **Antonie van Leeuwenhoek** made stronger ones, and became the first man to see bacteria, blood cells, and tiny water creatures known as *Foraminifera*. Leeuwenhoek was a Christian who loved the truth, and often talked about great and small creatures as the wonders God had designed. By revealing the hidden world, he showed that the world was even more wonderful than we could have imagined.



Antonie van Leeuwenhoek, who lived from 1632 to 1723.



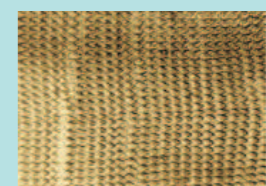
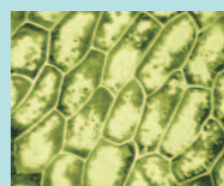
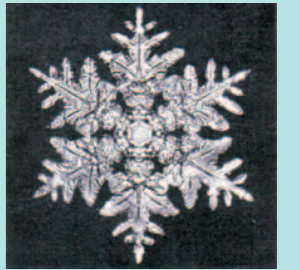
A scanning electron microscope (above) can magnify objects a million times!

In the 20th century even more powerful microscopes were invented. The scanning electron microscope (left) can magnify objects up to 1 million times! This enabled scientists to see right inside a single cell, and they were amazed to find that what was once thought to be just a "blob of jelly" is like a tiny factory (see opposite page).

Have fun with a microscope!

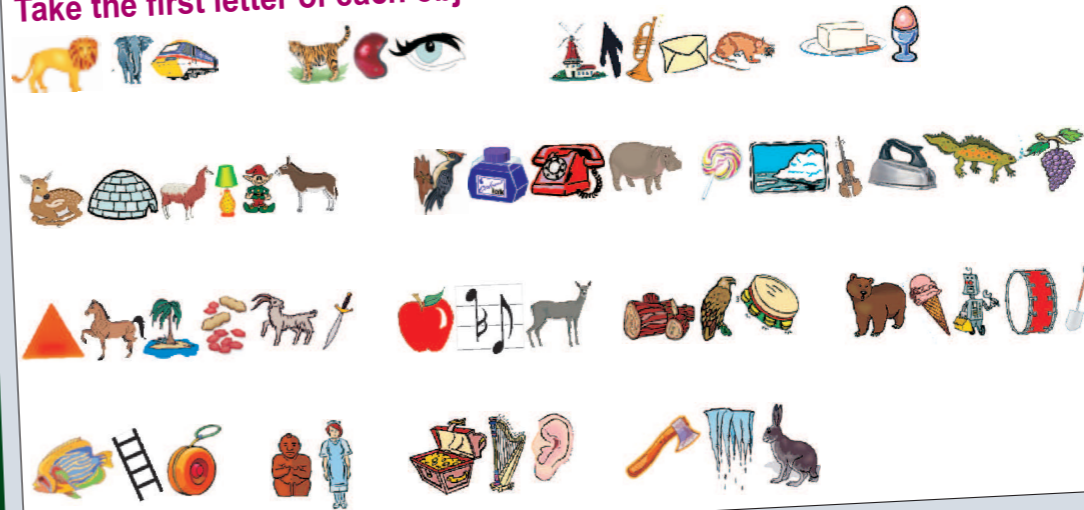


You may never have the chance to look through a scanning electron microscope, but you may be able to use a less powerful one at home or school. Even magnifying something by 50 or 100 times will open up a whole new world of wonder. You will see things like those pictured below and on the right. From left to right they are: the wing of a dragonfly, the sting of a nettle, the veins of a leaf, a snail's tongue, a glow-worm's foot, and a snow crystal.



PUZZLE CORNER

Take the first letter of each object to discover what God said at creation



Use the code 1=A, 2=B... 26=Z, etc. to fill in the grid below, which spells a Bible verse.

| | | | | |
|----|----|----|----|----|
| | 7 | 15 | 4 | |
| | 7 | 1 | 22 | 5 |
| 21 | 19 | | 14 | 5 |
| | 12 | 9 | 6 | 5 |
| | | 9 | 14 | |
| 3 | 8 | 18 | 9 | 19 |

(answers on next page)