**The Curlew**

Curlews are wading birds with long legs and long beaks which help them dig through mud to find worms and other small creatures for food. They are able to open their beaks just the tip of their beak, which helps them in their feeding.

Curlews spend much of their time on the ground, and are well camouflaged to blend in with grass and other plants. They lay their eggs in nests built on the ground. They usually lay four eggs, but the female doesn’t start to incubate them until she has laid the last one, which means that the chicks all hatch at the same time. This is because they have to leave their nest almost at once to follow their mother and begin searching for food. Unlike many birds, curlew chicks are born with a full coat of down, and can fly six weeks after leaving the nest.

Some curlews spend the summer in colder countries, and have to migrate to a warmer place for the winter. The Bristle-thighed Curlew flies from Alaska to the Polynesian Islands in the South Pacific, stopping off at Hawaii on the way. The first part of the journey is 6,000 km (3,730 miles), and the last part 4,000 km (2,500 miles)!. This may seem amazing, but even more wonderful is the fact that the parent birds fly away before the chicks, which have to wait until they are strong enough for the long journey. When they leave they head for a place they have never been to and have no guide. Yet, somehow, they find their way across thousands of miles of ocean!

The Bristle-Thighed Curlew is just one of the many wonderful birds that have been designed by God, the Creator.

**GOD WALKED ON THE EARTH!**

Our world is special in many different ways. So many things needed to be just right to make it possible for us to live here. We have seen that we even needed to have a moon — and a moon that was the right size and distance from us — to make life possible. It seems that God thought of everything when he created this planet to be our home! It was a special day when people first went to the moon. Neil Armstrong, one of the first, stepped on to the moon, said: "That’s one small step for man, one giant leap for mankind." But it was even more wonderful when the Creator visited the earth in the Person of Jesus! That was a “giant leap for God”. Jesus left the glory of heaven to show us how we ought to live, and died to pay for the wrong things we have done. “Christ died for us while we were still sinners.” In this way God shows his great love for us. (Romans 5: 8). Jesus came back to life again, so that those who trust Him can live for ever in heaven when their life on this planet is over. We can actually walk with Him for ever. Surely that’s much more wonderful than going to the moon!
The pull of the moon’s gravity lifts the water in the oceans. As the earth turns every 24 hours, we get our twice-daily tides. The highest tides happen when both the sun and moon are in line (see diagram below). This regular movement of water keeps harbours and river mouths clean, and allows oxygen to get into the water. If we had no moon, or if the moon were much smaller, there would be no tides, and the water in seas and harbours would become stale and murky. If our moon were larger, or much closer to us, huge waves would sweep over the earth twice a day, making life impossible in most parts of the world.

Millions of sea creatures, and some plants, depend on the daily tides to live. Most of them, such as barnacles (below, right), are fixed to the sea bottom or to rocks, and their food is brought to them by the daily tides. Some creatures are known as ‘filter feeders’, because they trap food particles carried by the moving water. (see ‘Tidal Power’ on next page)

God created our moon just the right size, and the right distance from us, so that the twice-daily tides are life-giving, not life-destroying.

THE TIDES (not to scale)

THE MOON

THE EARTH

When the sun and moon are in line, the extra pull makes the highest (spring) tides.

When the earth comes between the sun and moon the earth’s shadow moves across the moon. We call this a lunar eclipse.

Have you ever explored rock pools at the seaside when the tide was out? Lots of creatures live in them, and their food is brought to them by the twice-daily tides. Without the moon, there would be no rock pools, nor the many fascinating creatures which live there.

PHOTO: Richard Harvey. Photos from Wikipedia.

LIGHTS IN THE SKY

The Bible tells us that on the fourth day of creation, “God made the two large lights. He made the brighter light to rule the day. He made the smaller light to rule the night.” (Genesis 1: 16). The “brighter light” is the sun, which is a huge, burning star, giving us vital light and heat. The earth travels around the sun every 365 ¼ days. We call this period a year.

The “smaller light” is the moon that moves around the earth once every 29 ½ days, which explains where we get our months. The moon has no light of its own, but reflects the light of the sun. As the moon moves around the earth, we only see its sunlit side, so there are different phases, ranging from the full moon, through the “half moon”, to the “new” moon, when we can’t see it at all because its dark side is towards us. The night sky would be much less interesting without the moon.

Using the power of the tides

There is a lot of power in the tides, especially when it is funnelled up the mouths of large rivers. This power can be used to make electricity, a method that is much cleaner than power stations powered by coal or oil. There have been many plans to build tidal power plants, but only a few have actually been built. One of these is in the Rance river in France, which uses water power as the tide flows in and out again. Let’s hope more of these plants will be built, using the free energy God provided when He created the moon!

PHOTO: Richard Harvey. Photos from Wikipedia.

SPOT THE DIFFERENCE

Beginning with the third letter, cross out every third letter to read two Bible verses.

Yohu mayde tohe mcoon sto mwarke them seatoonis. Anyd thee suin knlowse whepn tor sets.

Thoe octeany wavbes alre plowedrfuel. Bult thue Lovrd arbovie is smucth groeater.

Can you spot the 8 differences between the pictures above?

PHOTO: Richard Harvey. Photos from Wikipedia.

ANSWERS ON NEXT PAGE

Nature Notes by the Editor

When I was working in the garden one day I disturbed an ants’ nest. The tiny insects began scurrying this way and that, and looked as though they didn’t know which way to go. But some scientists who have studied the way ants behave when they have to run for their lives, say we could learn a lot from them. When large crowds of people have to leave a place in a hurry—maybe because of a fire—they usually panic, rush for the exit, and people usually get hurt and even killed in the crush. Ants slow down and stay calm, and don’t try to push other ants out of the way. They seem to be trying to help one another, even though it looks as though they are confused.

But the idea that we can learn from the ants is not new. In the Bible we have the words of King Solomon, written 3,000 years ago: “Go and watch the ants, you lazy person. Watch what they do and be wise.” (Proverbs 6: 6). Ants live in communities, and work together as a team. Solomon also wrote, “Ants have no commander. They have no leader or ruler. But they store up food in the summer.” (Proverbs 6: 7). How did ants begin to live in communities? Evolution can’t explain it, because fossils show that ants have not changed. We believe ants were created by God, already “programmed” to work together. —Geoff Chapman