

By Russell Grigg

## Heavens above! Water below!

### DAY 2

**'Then God said, "Let there be an expanse in the midst of the waters, and let it separate the waters from the waters." And God made the expanse, and separated the waters which were below the expanse from the waters which were above the expanse; and it was so. And God called the expanse heaven. And there was evening and there was morning, a second day.'**

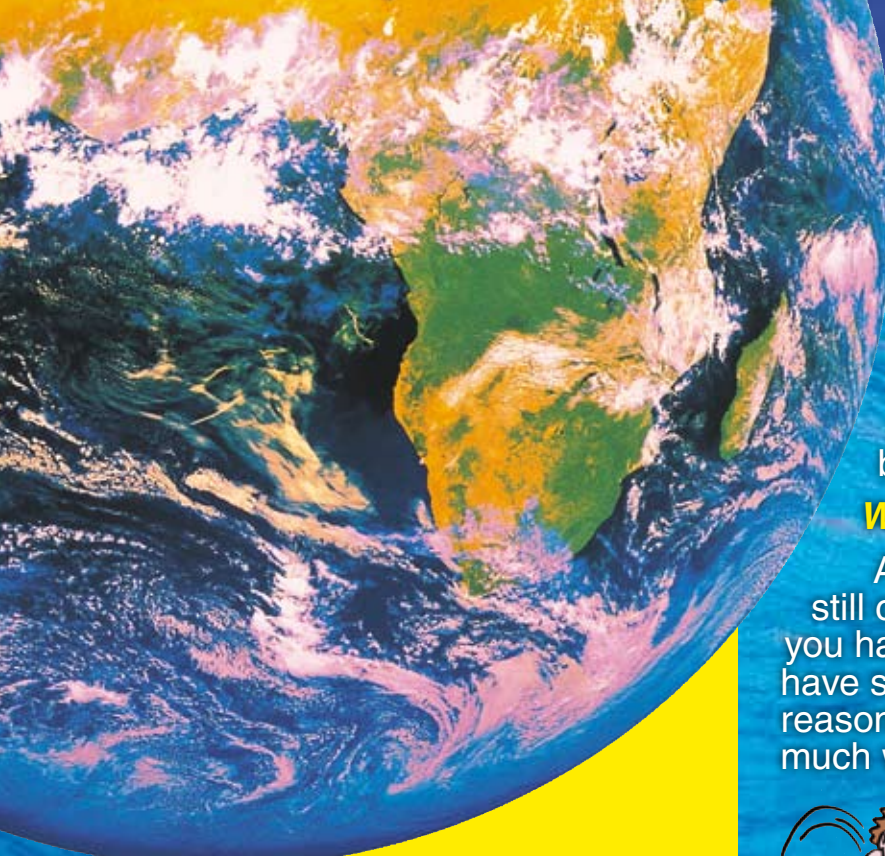
ON THE second day of Creation Week, God continued His work of preparing the earth so that plants could grow in it, and animals and people could live on it. The Bible says that on this day He made an 'expanse' around the earth, and that this 'separated the water under the expanse from the water above it'. God called the expanse the 'heaven', which we might call 'sky'. This is the atmosphere and the space beyond.

#### *The atmosphere*

Although you can't see the atmosphere, it is very important, because it contains the air we need to breathe to live. Also birds need it so they can have somewhere to

fly. Otherwise they would never get off the ground.

The air is made up of mainly nitrogen, some oxygen, and a tiny amount of other gases such as carbon dioxide. These are in just the right amounts. If there were a lot more oxygen, then a single spark could set the world on fire. If there were a lot more nitrogen, we would suffocate. Carbon dioxide is essential for plants to live, but



is deadly to humans in large quantities. Earth's atmosphere has only a tiny amount of carbon dioxide, which is plenty for all the plants, because they use it very efficiently, and this small amount is harmless for us. By comparison, the atmosphere on Mars is 95% carbon dioxide. This is one reason why people could not live on Mars without special breathing equipment.

### Water, water everywhere

At the end of Day 1, the earth was still completely covered by water. If you had been there on Day 2, you would have seen nothing but water. You might reasonably ask: Why did God make so much water on Earth?



The vast amount of water on Earth helps keep Earth's temperature fairly steady. This is not just because there's a lot of it, but also because it takes a lot more of the sun's energy

to warm water than it does to warm land. So the land heats up during the day and cools down during the night more quickly than the ocean does. This gives different air temperatures over the land than over the sea, and this generates winds. Winds keep the air we breathe fresh, as well as bringing clouds and rain to the land.

### Water—essential for life

Water! We drink it, cook with it, wash in it, and swim in it. We take it for granted—most of us just turn on a tap and out it comes.

However, not everyone is so fortunate; some people have to pump it out of the



ground, and others need to carry it long distances from wells or rivers.

Without water we would die in a few days. This is because it plays a part in almost every process that occurs in our bodies. Our bodies are mainly water, and water is a major part of our blood.

One of the most

important things about water is that it can dissolve many other substances. Because of this, the water in our blood can carry vitamins and minerals from the food we have eaten to the rest of our body, where they are needed for growth, repair and energy.

Water contains dissolved oxygen from the air, enabling fish and other water-animals to live in it.

Water also flushes our bodies of waste products, one of which is carbon dioxide produced by our cells. The water in our blood dissolves this and carries it back to our lungs where we

breathe it out. When water evaporates, it absorbs heat from its surroundings. This is why sweating cools us down.

One of the most unusual but important properties of water is that it expands when it freezes. This is why icebergs float, and why ice forms first on the top of water instead of on the bottom. This means that fish can still swim underneath the ice. Otherwise, all the water in a river or lake could freeze and the fish would be killed.

God certainly knew what He was doing when He designed water to be the way it is.

## DID YOU KNOW?

- The earth is the only place in the universe known to have liquid water.
- The earth is 70% covered by water.
- Only about 1% of the world's water is ready to drink (but this is enough). About 97% is too salty and 2% is ice.
- Pure water is colourless, odourless and tasteless. Tap water may contain small amounts of salts and gases, which give it a taste.
- Australia is the world's driest continent where people live in cities.
- Only 1% of household water is used for drinking in Western countries. The rest is used in bathrooms, and on the garden, etc.
- A house toilet flushes about 150 litres of water per day.
- A tap dripping one drop per second wastes about 30 litres (8 gallons) of water per day.

Ocean floor and water photo by Gary Bell, <oceanwideimages.com>

## IS THERE LIFE ON MARS?

In 1877, an Italian astronomer called Giovanni Schiaparelli thought he saw some thin dark lines on Mars which he called channels (Italian *canali*). An American astronomer called Percival Lowell thought he meant canals, so the story spread that not only did Mars have water, but also intelligent beings able to build canals.

But no streams of water or canals built on purpose by intelligent beings have been found by the several NASA space missions to Mars. Despite this, evolutionary scientists continue to hope to find Martian microbes in some icy Martian pot-hole. Why? Because they believe that where there is water there could be life.

However, even if there is water on Mars, or on any other planet, this does not mean there will be life there. Life does not arise from water by itself. It is the result of special creation by God.

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