WANTED A New Planet!

Goodbye Earth?

Scientists believe Earth has been our home for around 200,000 years. Can we continue to live on Earth forever, though?

- The Earth is getting more and more crowded each year.
- As the population grows, more fuel is needed – oil, gas and coal. These fuels are running out.
- Some people think that if recent climate changes continue, many areas will become too hot to grow food. Also ocean levels could rise, flooding towns on the coasts.
- Some people believe that a meteor struck the Earth 65 million years ago, killing off most living creatures. If this happened again and we were living on another planet, we would survive.

For all these reasons, some scientists believe we may need to find a new planet to live on.

What we would need in our new home

Anywhere we moved to would need:

- ***Oxygen***
  On Earth we get this from plants and trees, so we would need suitable land to grow them.
- ***Water***
  This is vital to keep all living things alive.
- ***The right temperature***
  Planets close to the sun are too hot for us, while those far away are too cold.

- ***An energy source***
  We would need a fuel such as coal or oil, or a way of using lots of natural energy, such as the wind, to give us power.
- ***Gravity***
  This would need to be about the same as the Earth's gravity.

Jupiter Mars Earth Venus Mercury Sun

Life on Mars

Scientists have researched the idea of humans living on Mars for many years. In June 2010 six astronauts began a simulated mission to Mars, to see how they would cope with the long journey.

They lived in an imitation spacecraft for 520 days, though it never left the ground. During their 'trip' they ate food similar to that on a space station. They eventually 'landed' on 4 November 2011.

The astronauts did a simulated space walk on 'planet Mars'.

Unmanned spaceships and satellites have already been sent to Mars. Research suggests that there are large amounts of ice trapped underground. Many scientists believe that there was once life on Mars.

The unmanned spaceship, Phoenix, landed on Mars in 2008 to explore the planet.

What would we need to do to make Mars habitable again?

- The average surface temperature on Mars is minus 60 degrees Celsius. We would need to use gases to warm up the atmosphere to around 5 degrees Celsius.
- This would melt the large amounts of ice beneath the surface, with the water forming rivers and lakes.
- Introducing microbes to the soil would eventually produce enough oxygen to allow plants to grow.
- Plants would then give out oxygen to support human life.

There are some scientists who think this could be achieved in 100 years. Others think that the atmosphere on Mars could never support life, or that it would take thousands or even millions of years.

Animals in space

We need to know how animals would behave in space. This is because they would need to spend years in spaceships to get to their new home. Would they be able to survive and reproduce?

To find out, creatures have been sent into space. Experiments have used: fruitflies, monkeys, mice, dogs, rabbits, fish, frogs, spiders, tortoises, jellyfish and scorpions.

Almost all of the creatures survived their trip. Scientists also discovered that:

- Fish tended to swim in loops instead of in straight lines.

- Rats with broken bones took much longer to heal.
- Jellyfish born in zero gravity in space were able to tell up from down in their water. On Earth they can't.

If we were to grow flowering plants on another planet, we would need insects to pollinate them. In 1984, the space shuttle Challenger took 3,000 honey bees into space. They behaved normally and built honeycombs just the same as on Earth.