

## **Carbon dioxide at record high level**

The level of carbon dioxide (CO<sub>2</sub>) in the atmosphere is now at a record high. An American weather station in Hawaii recorded the new high on the 9th of May. It found CO<sub>2</sub> levels were at 400 parts per million (ppm). The last time CO<sub>2</sub> was at this level was five million years ago. This was when there were no humans on the Earth. Scientists say the 400ppm level is a warning sign. They say we must do more to stop this number getting bigger. However, scientist James Butler said he thought CO<sub>2</sub> levels would keep rising. He warned: "In eight to nine years, we will probably have seen the last CO<sub>2</sub> reading under 400ppm." He told reporters that even at the South Pole, CO<sub>2</sub> would be above 400ppm.

Carbon dioxide is one of the gases that create global warming. Just one CO<sub>2</sub> molecule can stay in the atmosphere for hundreds of years. Pieter Tans, one of the scientists measuring CO<sub>2</sub> levels, said human activity is making the Earth warmer. He said that, "the burning of coal, oil, and natural gas is driving the acceleration". He pointed out that 300 years ago, CO<sub>2</sub> levels were around 280ppm. He added that 800,000 years ago, they were at 180ppm. Another scientist, Dr Ralph Keeling, warned that CO<sub>2</sub> is warming the Earth to dangerous levels. He is worried about arctic ice melting, causing sea levels to rise. This will put billions of people in danger. He said: "It takes a long time to melt ice, but we're doing it. It's scary."

## **New Machine Sucks CO<sub>2</sub> from the Air**

Engineers at a U.S. laboratory may have discovered one answer to the problem of global warming. They have made a machine that can suck carbon dioxide from the air and convert it into liquid fuel. Researchers at the Sandia National Labs believe their creation can provide a sustainable form of renewable energy. Their device sounds like something from science fiction. In fact, the name of it is probably the most difficult thing to understand. It is the Counter-Rotating-Ring Receiver Reactor Recuperator, or CR5 for short. Lead developer Rich Diver is excited about his project. He said sucking CO<sub>2</sub> from the environment could be an alternative to carbon sequestration. This is a method of burying CO<sub>2</sub> deep underground.

Sandia calls the process carried out by CR5 "Sunshine to Petrol". The researchers say their invention is still 15 to 20 years away from being in full operation. It is currently just a prototype – a small model of the real thing. A Sandia spokeswoman said it "holds a real promise of being able to reduce carbon dioxide emissions". She added it would allow us "to keep using fuels we know and love". It is possible that by 2030, cars and airplanes will run on the converted fuel. It will produce fuels such as methanol and gasoline. It will be interesting to see if this machine can actually lower our carbon footprint. Yes, it reduces carbon dioxide in the atmosphere, but its liquid fuel product causes pollution when it burns.

## **Discussion Questions**

- Is it possible to even ruin the environment?
- Is the CR5 a good invention? Why or why not?
- Is carbon dioxide the only thing causing global warming and environmental problems?
- Is gasoline the only fuel we can use for energy?