**Apollo 13 (Read the information, answer the questions)**

The first successful manned moon mission was Apollo 11 in July 1969. Neil Armstrong and Buzz Aldrin landed on the Moon and collected samples before returning safely to Earth. The next mission was Apollo 12 in November 1969, which also landed 2 men on the Moon.

On Sunday 11th April 1970, Apollo 13 was launched and headed for the Moon. On board were 3 crew members: Lovell, Haise and Swigert. However, before they reached the Moon, one of their oxygen tanks exploded and the second tank stopped working. The explosion damaged the spacecraft and meant that fuel, water, oxygen and electrical power were in short supply, so it would not be possible to land on the Moon. Mission control decided that the best plan was to carry on and orbit the Moon before returning to Earth, using the Moon’s gravity to help accelerate the spacecraft in a process called ‘the slingshot effect.’ It would take 4 days to get back to Earth, and during this time the three astronauts would have to survive using the supplies in the lunar module, which were only sufficient for two men for two days. The crew reduced their water intake and became dehydrated. They also turned off the heating to save electricity, so condensation and ice formed inside the lunar module. But the biggest problem was the removal of the carbon dioxide which the astronauts were breathing-out, as the air purification system was no longer working; if the levels of carbon dioxide became too high, the crew would die. NASA scientists at mission control gave radio instructions which helped Lovell make a device to help purify the air and keep the men alive until they finally returned safely to Earth, landing by parachute in the Pacific Ocean on Friday 17th April 1970.

**Questions**

1. How many manned Apollo missions had successfully reached the Moon before Apollo 13?
2. What happened to Apollo 13 which put the lives of the crew in danger and prevented them from landing on the Moon?
3. What essential things were in short supply?
4. Why did mission control decide that the spacecraft should continue on to the Moon?
5. Which part of the spacecraft provided the supplies which kept the men alive?
6. What was the biggest problem faced by the crew, and how did they solve this problem?
7. If you were given the opportunity to go on a space mission, would you take it? Explain your answer.