

A weighty question



Background knowledge

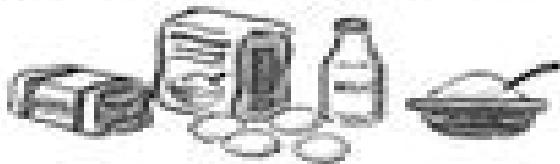
If a man stood on the Moon, he would stay the same size. His mass would not change. However, if he weighed himself on the Moon, he would weigh less. Your weight is caused by the pull of gravity. The Moon is smaller than Earth, so it has less gravitational pull. For example, a person who weighs 100% on Earth will weigh about 16% on the Moon.

Science activity

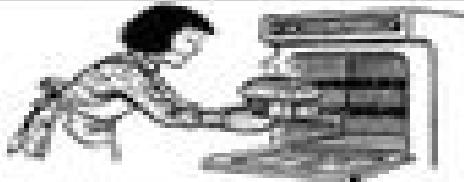
Imagine that some soldiers have left Earth and gone to the Moon, taking their recipe books with them. The first cake they baked was a disaster. It had far too little resistance and was about six times the size they had expected.

The cake recipe was:

1.25 N	butter
1.52 N	sugar
4	eggs
1.50 N	flour
20 ml	milk



"Why was the cake so big?" "Why was it soggy?"



Science investigation

➊ Take extra care - ask an adult to supervise this.

Can you catapult objects further on the Moon than on Earth? To find out, make a catapult using a thick rubber band. On Earth, objects weigh about six times what they do on the Moon. That means everything is six times stronger on Earth than on the Moon, where that tape requires 16 pushes (or weight of an object on Earth). Consequently, objects will travel further on the Moon.

