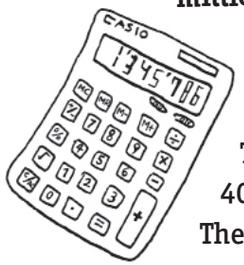
The Milky Way

...in 30 seconds

Earth's home galaxy is the Milky Way. It is a spiral galaxy that is between 100,000 and 120,000 light years wide and approximately 1,000 light years thick.

To give an idea of this size, if the Milky Way was shrunk to the size of a 100-m (300-foot) football pitch, the whole Solar System would be a 2-mm (0.1-inch) grain of sand on it.

Just like the planets travel around the Sun, our Solar System travels around the centre of the Milky Way. It takes between 225 and 230 million years to complete an orbit.



The Milky Way is part of a cluster, or collection, of galaxies known as the Local Group. These include Andromeda, the Triangulam galaxy and Canis Major Dwarf as well as a further 40 galaxies, some of which have only recently been discovered. The Local Group has a diameter of about 10 million light years.

3-second sum-up

Our Sun is just one among 200 billion stars in the Milky Way.

3-minute mission: count the stars

Let's assume that there are 200 billion stars in the Milky Way – that's 200,000,000,000! How many years would it take to count them all, assuming you can count a star every second? Tips:

1. Use a calculator. Work out how many stars you could count in a day.
2. Multiply your day figure by 365.25 (to allow for the leap year every four years). (Answer on page 96)