



Satellite - Why don't Satellites fall out of the sky?

Fact

- A satellite travels very fast and if there was no force acting on it, it would keep going in a straight line. However Gravity pulls it towards the centre of the earth.
- Under the pull of gravity the satellite curves towards the earth but at the same time, because the earth is round, the earth's surface is curving away from the Satellite.
- So while the satellite is always being pulled by gravity, the earth curves at the same rate so it never manages to get any closer to the earth's surface.

Do you know

- The Hubble space telescope orbits (circles round) earth 600 kilometres above the ground.
- The Russian MIR space station is one of the largest objects orbiting earth.
- There are thousands of satellites orbiting the earth doing lots of different jobs. Some monitor weather, some track expensive cars, some spy on different countries and some send live TV programmes around the world to other countries.

Experiments you can do

One evening on a very clear moonless night, when the ground is warm and dry lie on your back in the garden with your family and look for something that looks like a slowly moving star. That'll be a satellite.

Other Investigations

Next time you're watching a live rugby game with your family that's happening in another country as you watch it explain to your family how satellites are used to send the live footage from that country to ours.

Explain to them how a satellite orbits earth and will never fall to the ground because as it falls the earth curves at the same rate.

Jokes

What kind of light lights up the area where you sit? A satellite (sat a light)