

# explorium

## Space for everyone!

### Spot the International Space Station

Suitable for:

All ages and Families

Above our heads there are amazing things happening all the time. We can see other planets in our solar system, stars burning brightly many billions of miles away, galaxies swirling around our night sky containing their own stars and planets.

Much closer to home, a network of human-made machines fly above us, called satellites.

Satellites are objects that orbit a planet. We call natural satellites 'moons', like our very own Moon. But there are also thousands of human-made satellites orbiting us, which we have launched into space to do a wide range of tasks. There are communications satellites, weather satellites, satellites that take pictures of Earth and other planets so we can learn about them. One of these satellites even has humans living on it. It's called the International Space Station (ISS).

You can use this website to find out when and where to spot the International Space Station's location:

<https://spotthestation.nasa.gov/> or

<https://heavens-above.com/>



#### ISS Facts:

- ▶ It is the largest man-made object in space. It's 109m long, about the size of a football field.
- ▶ It weighs almost 400,000kg
- ▶ It flies 400km above Earth (the Moon is more than 900 times further away)
- ▶ It travels at a speed of almost 28,000 km/h
- ▶ It circles the Earth every 92 minutes (that's 15.5 orbits a day, meaning the astronauts on board see a sunrise/sunset every 92 minutes)
- ▶ 16 countries worked together to build the ISS.
- ▶ There are usually between 3 and 6 people on the ISS.
- ▶ Astronauts spend most of their time on the ISS performing experiments and maintenance, and have to exercise for at least 2 hours a day. They also occasionally perform spacewalks.
- ▶ The ISS can be seen from Earth without the use of a telescope. It appears as a slow moving bright white dot in the night sky.

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During these times at home we have an excellent chance to look upwards, learn about the night sky, and gain some perspective on the great cosmic symphony. Check the website and see what time the Space Station will be passing overhead, grab some jackets and head outside to give the astronauts a wave! You can use the worksheet to document what you saw.

Night Sky Worksheet:

Date:

Time:

Location:

Name of Observer:

- ▶ Draw the stars that you can see in the night sky. Do you recognise any constellations?

Shape

- ▶ Did you see any satellites? Where were they? What direction were they moving? Was it moving fast or slow?

Did you see the International Space Station? Draw what you saw:

Shape

- ▶ Draw the appearance of the Moon. Was it a full moon? Half moon?

Shape

