

Physics - Key stage 3

Dr Maggie Aderin Pocock

Miss Hindle



Keeping satellites in orbit

A satellite is going to be put into orbit around each planet.

Explain which satellite will need the highest and lowest speed.

Challenge: Why is it important that the satellite always orbits at the same distance from the planet's surface?

Planet	Gravitational field strength / N/kg
Earth	9.8
Mercury	3.6
Jupiter	26.0
Neptune	14.1

- *The satellite that would need the highest speed is...*
- *This is because...*
- *If the thrust is too low...*

- *The satellite that would need the lowest speed is...*
- *This is because...*
- *If it was too high...*

