

Year 11 Physics - Gravity (Easy Notes)

1. What is Gravity?

Gravity is a force that pulls things down.

It keeps us on the ground and makes things fall.

2. Gravity in Space

- Gravity keeps the Moon around the Earth.
- Gravity keeps the planets around the Sun.
- Without gravity, everything would float.

3. Weight and Mass

- Mass is how much stuff is in something.
- Weight is how heavy something feels.
- Mass stays the same everywhere.
- Weight changes if gravity changes.

Formula: $\text{Weight} = \text{Mass} \times \text{Gravity}$

Example: If mass = 10 kg and gravity = 9.8 m/s^2 ,

$\text{Weight} = 10 \times 9.8 = 98 \text{ N}$

4. Gravity Facts

- Big things have more gravity.
- Close things feel more gravity.
- Gravity gets weaker in space.

5. Examples

- A ball falls because of gravity.
- We come back down when we jump.
- The Moon stays near Earth because of gravity.

6. Summary

- Gravity is a force that pulls.
- It keeps things on the ground and planets in orbit.
- $\text{Weight} = \text{mass} \times \text{gravity}$.