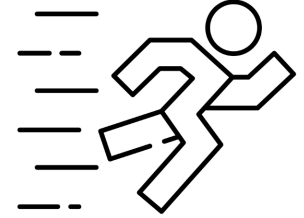


## Inertia and Gravity

### What is Inertia?

Inertia is a big word that describes how things like to keep doing what they are already doing. If something is sitting still, it will stay still until something else makes it move. For example, a ball on the ground won't roll away unless you kick it. If something is moving, like a space shuttle in space, it will keep moving in a straight line until something like gravity or an engine makes it change direction.



### In Space, Inertia is Everywhere

Space is a huge, empty place. That means there's almost nothing to slow things down. If you throw a tool from the International Space Station, it will keep going in a straight line forever, unless something stops it or changes its path.

### What is Gravity?



Gravity is a force that pulls things toward each other. Everything that has weight, like the Earth or the Sun, has gravity. Earth is big, so its gravity pulls things down to the ground. That's why when you jump, you come back down. The Sun is even bigger, and its gravity keeps Earth and all the other planets moving around it in circles.

### Why Don't Planets Fly Away?

Gravity keeps planets from flying off into space. If there was no gravity, Earth would zoom off in a straight line. But because of gravity, it stays in its path around the Sun. This path is called an orbit, and it's a circle-shaped path that planets, like Earth, and moons follow around bigger objects in space.

