

Nova's Guide to Fantastic Forces

Get moving with Nova the Owl—discover the invisible forces that shape our world!

- A force is a push or a pull that can change the speed, direction, or shape of an object.
- Friction is a contact force that happens when two surfaces rub against each other, always acting in the opposite direction to the movement.
- Rougher surfaces, like gravel or grass, create more friction than smooth surfaces, like ice or glass.
- Gravity is a non-contact force that pulls objects towards the center of the Earth, keeping our feet firmly on the ground.
- Air resistance is a type of friction that pushes against objects moving through the air, such as a falling leaf or a moving bicycle.
- When you use a parachute, the large surface area creates extra air resistance to slow you down safely.

Did you know? Did you know? If you were to slide a book across a carpet and then across a polished wooden floor, it would travel much further on the wood! This is because the rough texture of the carpet creates more friction, which acts like an invisible brake to slow the book down.

Key vocabulary: Force · Friction · Surface · Resistance · Gravity · Motion