

Nova's Guide to the Forces of Nature

Get Moving with Nova: Discover the Invisible Powers Pushing and Pulling Our World!

- **Why does a ball eventually stop rolling across a carpet? Think about the friction between the ball and the rough fibres of the rug.**
- **How does gravity affect everything on Earth? Remember that gravity is a non-contact force that pulls objects towards the centre of the planet.**
- **In what way can we change the amount of friction acting on an object? Consider how smooth or rough surfaces impact the movement of a toy car.**
- **Why do parachutes use air resistance to help people land safely? Explain how the large surface area of the fabric interacts with the air.**
- **What are the differences between contact forces, like pushing a door, and non-contact forces, like the pull of a magnet?**

Did you know? Did you know that air resistance is a type of friction? When you jump on a trampoline or drop a piece of paper, the air particles push back against the object, slowing it down. This is why a crumpled ball of paper falls faster than a flat sheet—it has less surface area for the air to push against!

Key vocabulary: Friction · Air Resistance · Magnetism · Gravity · Surface · Surface Area · Contact Force