Slippery or sandy road surfaces, worn tires, and under- or overinflated tires that don't grab the road will reduce traction. Slow down if you are on a poor road surface.

Inertia — this is the tendency for moving objects — in this case, you and your vehicle — to continue moving forward in a straight line. When you brake, inertia tries to keep your vehicle moving. When you go around a curve, inertia tries to keep you going in a straight line. The faster you are going, the greater the force of inertia.

**Gravity** — this is the force that pulls everything towards earth. It's the reason your vehicle slows down going up a hill and speeds up coming down. It's important to remember this when you're going downhill because your vehicle will need a longer distance to stop.

**Centre of gravity** — this is the point around which all of an object's weight is balanced. The centre of gravity for any object can change. For example, a tightrope walker may carry a pole to lower the body's centre of gravity and make it easier to balance.

Most vehicles are built on the same principle — low enough to the ground so they balance well on hills, curves and uneven road surfaces. But some vehicles — for example, some sports utility vehicles, pickup trucks and camper vans — have a higher centre of gravity. Whenever the height of a vehicle or its load rises, the centre of gravity also rises. A vehicle with a higher centre of gravity is less stable on uneven road surfaces and is more likely to tip over on a curve taken at higher speeds. You need to remember this if you are driving one of these types of vehicles.





The blue car has a low centre of gravity. On a curve, the weight shifts to one side but the car remains stable. The truck, with its large wheels, has a much higher centre of gravity. On a flat surface it is stable, but when the weight shifts on a curve, the truck becomes unstable and may roll.



