

DRIVEN TO INSPIRE: THE SCIENCE OF GOING FAST!

KEY FEATURES OF PHYSICS

INFORMATION SHEET

Friction (grip/aerodynamics)

Contact between the tyre and the surface; air resistance (drag) between the racing car body shape and the air it is moving through.

Power (acceleration)

Rate at which the chemical energy stored in the fuel can be transferred to the engine to create kinetic energy that moves the car forward.

Mass (weight)

Gravity's effect on the weight of the car; this impacts the rate of acceleration, but also holds the car to the track when cornering.

Material design and composition (safety features)

Elements of the car are designed with the drivers safety at the forefront. **Material design and composition** play a key role in keeping the driver safe, but also ensuring the efficiency of a car's performance.

