Cooling systems in cars

- The role of the cooling system in a car is to control the controlled explosions that occur in the engine.
- Without the cooling system, the engine will be destroyed in a matter of minutes.
- There are 2 types of cooling: Liquid cooling and Air cooling
- Air cooled engines are typically found in older cars and many modern-day motorcycles
- Automobiles and trucks nowadays use liquid cooling instead

Basic structure of a cooling system:

The cooling system is made up of the passages inside the engine block and heads -> aa water pump is circulated throughout the coolant -> a thermostat is used to control the temperature of the coolant -> A radiator is used to cool the coolant -> and a radiator cap to control the pressure in the system.

How it works:

It first sends a liquid coolant through the passages in the engine block and heads -> As the coolant flows through these passages, it picks up heat from the engine -> The heated fluid then makes its way through a rubber hose to the radiator in the front of the car -> As it flows through the thin tubes in the radiator, the hot liquid is cooled by the air stream entering the engine compartment from the grill in front of the car -> Once the fluid is cooled, it returns to the engine to absorb.

The water pump has the responsibility of keeping the fluid moving through the system of plumbing and passages.

A thermostat is placed between the engine and the radiator -> to make sure that the coolant stays above a certain temperature.

To prevent the coolant from boiling, the radiator cap is used to control the pressure of the system. The cap is designed to release pressure if it reaches the specified upper limit that the system was designed to handle. Any fluid that is released is stored in a separate reserve tank temporarily. This fluid would then return to the cooling system after the engine cools down.