

INFO
101

CARS

ENGINES



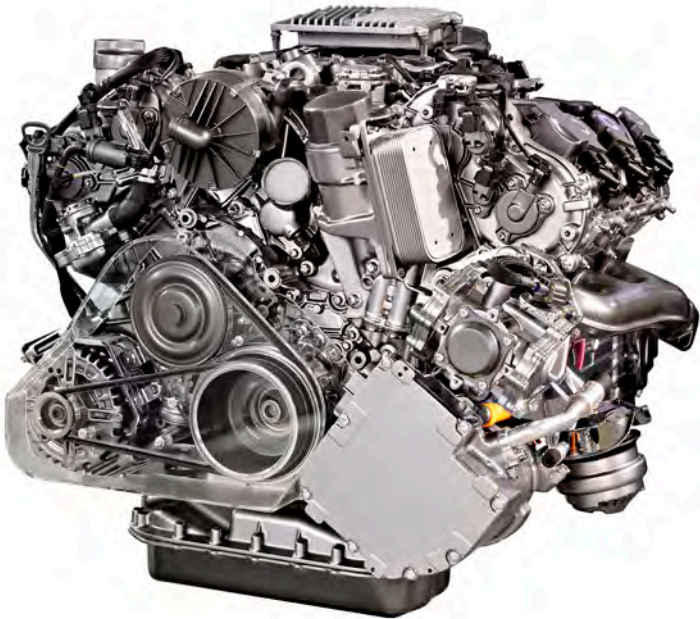
Matt Levine



high noon books

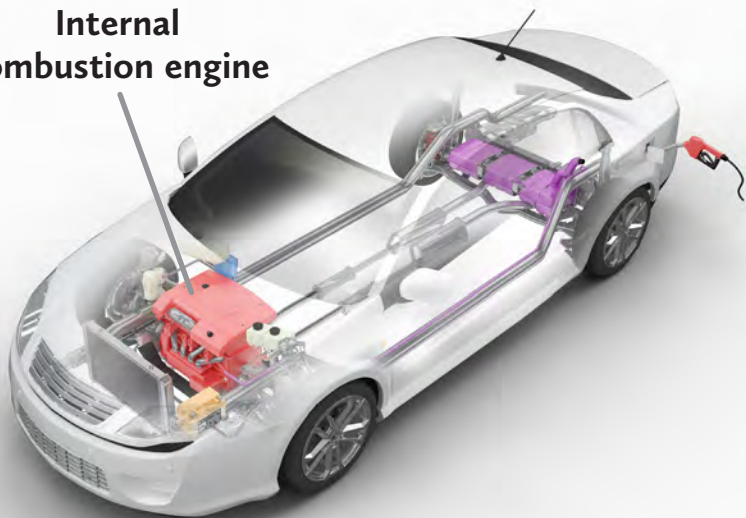
Novato, CA

Internal combustion engine



Most car engines are *internal combustion engines*.

**Internal
combustion engine**

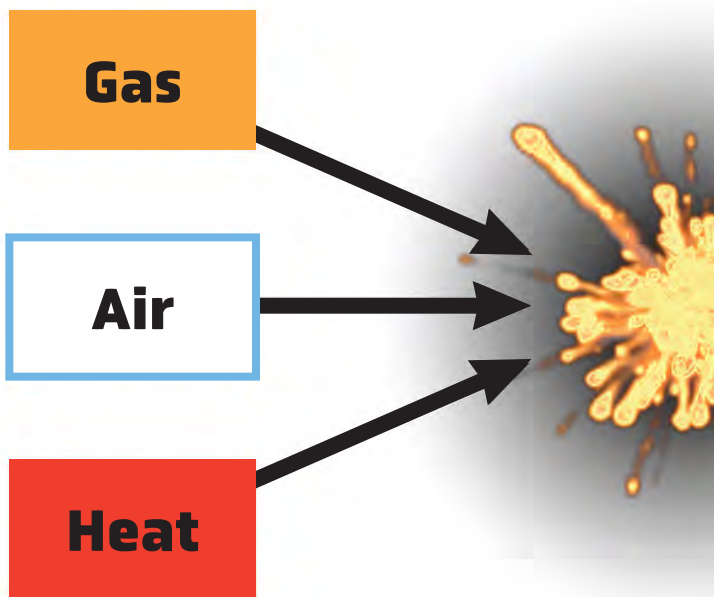


The engine is one of many parts of a working car.

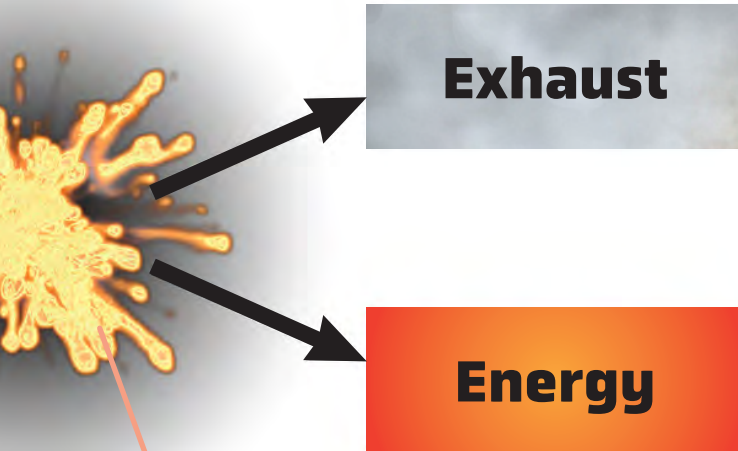


When a car engine runs, there are many, many little explosions inside.

The explosions happen when gas burns. When gas burns, we say it *combusts*.



The explosions create energy.
This runs the engine.

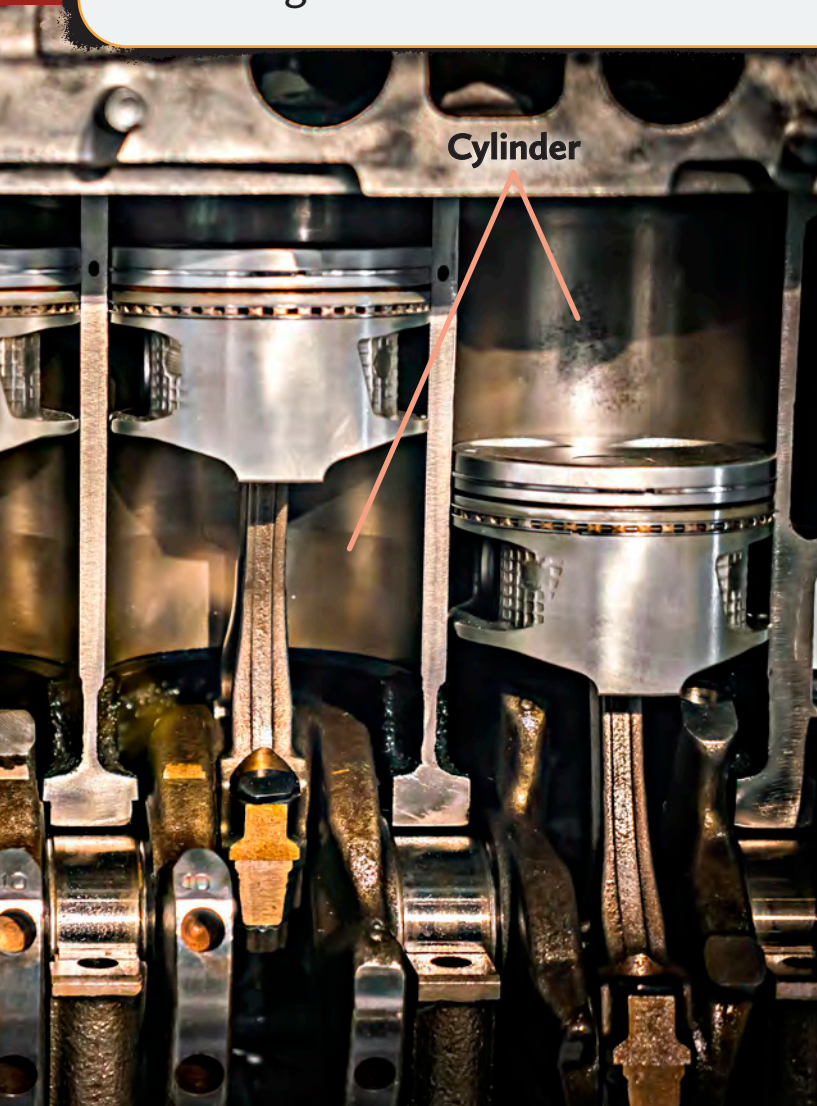


Air and heat are needed
for gas to combust.

It works like this: Car engines have metal tubes in them.



The tubes are called *cylinders*.
Most engines have 4 to 12 of them.

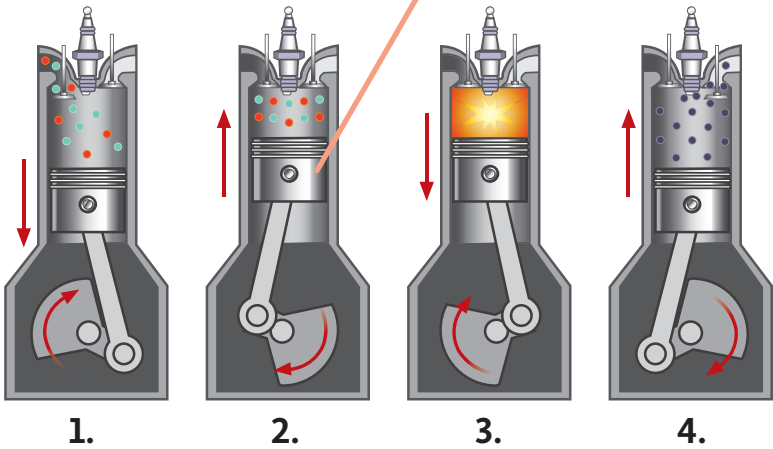




Piston

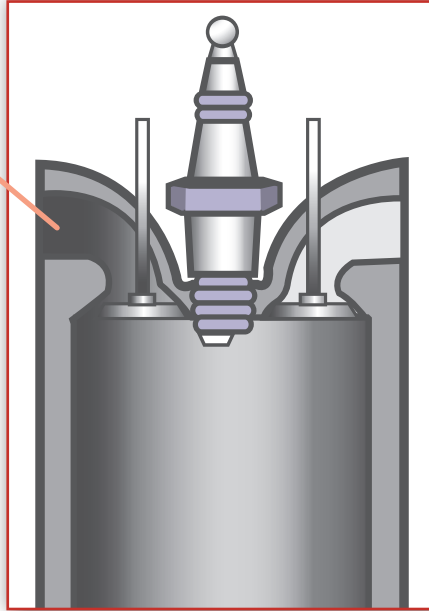
Each tube has a *piston*.
The piston moves up and down.

Piston inside
cylinder



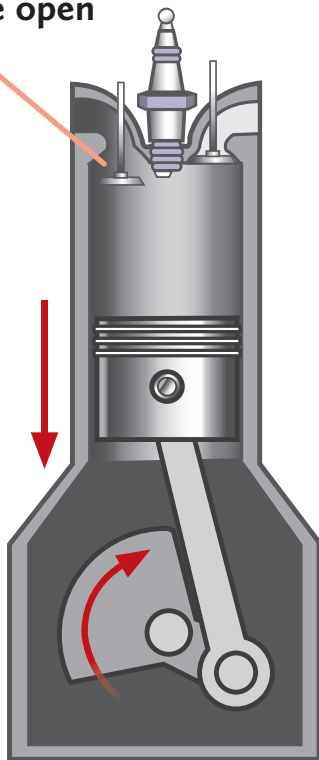
A piston's motion up or down is called a *stroke*. It takes four strokes to run an engine.

Intake valve



A cylinder has an opening called the *intake valve*.

Intake valve open



In the first stroke, the valve opens.
The piston moves down.

GLOSSARY

axle (AX•ul) a rod that holds a car wheel

combust (com•BUST) to burn

cylinder (SIH•lin•der) a tube

drive shaft a rod that connects a car's engine to its axles

exhaust (ig•ZAWST) what is left over after gas has burned up in a car engine

exhaust pipe a pipe through which exhaust leaves a car

exhaust valve (ig•ZAWST VALV) a hole through which exhaust leaves a cylinder

ignite (ig•NITE) to catch fire

intake valve (VALV) a hole through which a mix of gas and air enters an engine cylinder

internal combustion engine

(com•BUS•chen EN•jin) an engine that burns gas for power

piston (PIH•stun) a sliding piece that moves within a cylinder

spark plug a part at the top of an engine cylinder that creates a spark

stroke (STROHK) in a car engine, the movement of a piston up or down