AQA P5d Pressure and moments	Required Practical for this topic:
Triple Physics	None

Pressure		
	Pressure	The force normal to a surface per unit area
	Pressure units	Pa for pascal or (N/m^2)
	Pressure in a liquid	Increases with increasing depth, density and gravity
	Liquids flow	Until the pressure along the same horizontal level is equal
	Atmospheric pressure	Decreases with increasing altitude because there is less air above a point at higher altitude
	Hydraulic machines	Transmit pressure through incompressible liquids
	The density of the atmosphere	Decreases with increasing altitude
	Upthrust	The upward force acting on an object in a fluid
	Upthrust	Is caused by the difference in pressure between the bottom and top of the object
	An object will sink	If its weight is greater than the upthrust on it when fully immersed

Pressure = Force ÷ Area   (P = F ÷ A)

Pressure = density × gravitational field strength × height (P = ρgh)

Pressure × Volume = constant (PV = constant)

Moments		
	Moment	Turning effect of a force
	Moment unit	Newton-metre (Nm) either clockwise or anticlockwise
	Levers can	Exert a force larger than the effort
	Adjacent gear wheels	Rotate in opposite directions
	If a smaller gear wheel	Drives a larger gear wheel then the moment will be increased.
	If a smaller gear wheel	Drives a larger gear wheel then the rotational speed decreases
	The centre of mass of an object	Is the point at which the mass is said to be located
	When an object is freely suspended	It comes to rest with its centre of mass directly below the pivot
	The centre of mass of a symmetrical object	Is along its line of symmetry
	If an object at rest doesn't rotate	Then the sum of the clockwise moments equals the sum of the anticlockwise moments

Moment (*Nm*) = Force (*N*) × perpendicular distance (*m*) from the line of action of the force to the pivot   (M = Fd)