



What equations do I need to know for the Edexcel IGCSE physics exam for the Solids, Liquids or Gases topic?

In the list below the equations are grouped into the ones that need learning for IGCSE Edexcel double award (4SD0) and Physics only specification (8463).

There are no equations in this topic that are paper 2 only so all students of IGCSE Edexcel Physics need to memorize or be able to use all the equations. The AQA specification has a similar topic called 4.3 the Particle Model of Matter. A big difference is that the topic requires use of another equation for specific latent heat and do not require the pressure equations in this list. Similar variation exists in other specification such as OCR, CIE or Eduqas.

Equations to Learn	
density = $\frac{\text{mass}}{\text{volume}}$	$\rho = \frac{m}{V}$
pressure = $\frac{\text{force}}{\text{area}}$	$p = \frac{F}{A}$
pressure difference = height \times density \times g	$p = h \times \rho \times g$
Equations given in exam	
Energy = mass \times Specific Heat Capacity \times Temp change	$\Delta Q = m \times c \times \Delta T$
pressure \times volume = constant	$p_1 \times V_1 = p_2 \times V_2$
$\frac{\text{pressure}}{\text{temperature}} = \text{constant}$	$\frac{p_1}{T_1} = \frac{p_2}{T_2}$