



SCAN ME



Assessment = ★

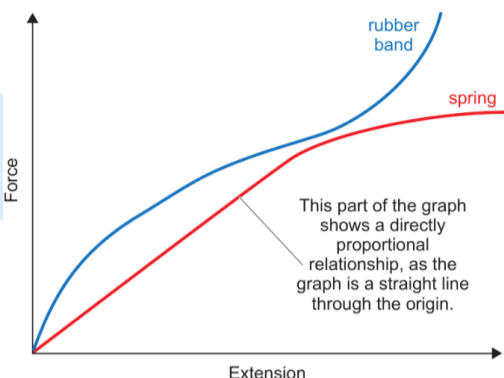
$$\text{ELASTIC POTENTIAL ENERGY} = \frac{1}{2} kx^2$$

Final assessment

Review of learning

Apply:
16+ Particle physics
Mechanics fluids

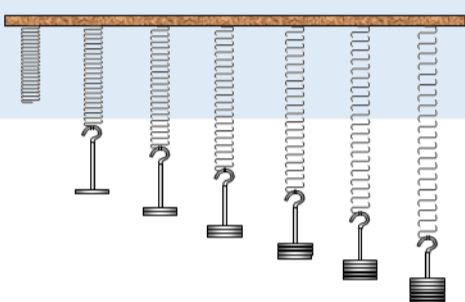
Revision
Retrieval,
keyword
definitions and
equation practice.



Extension and energy transfers

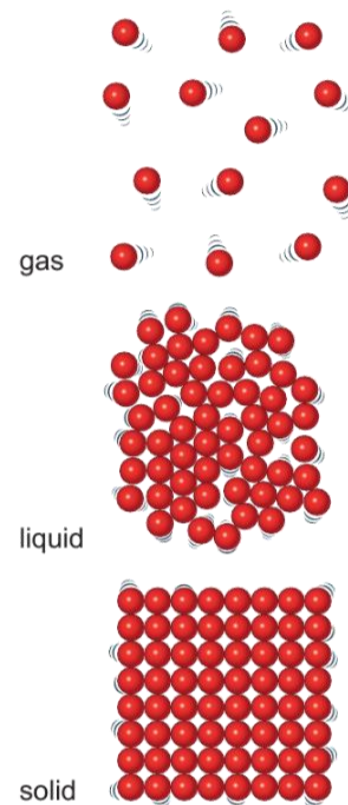
What is the equation that relates the forces and extension of a spring?

Investigating springs
CORE PRACTICAL –
Investigate the extension and work done when applying forces to a spring.

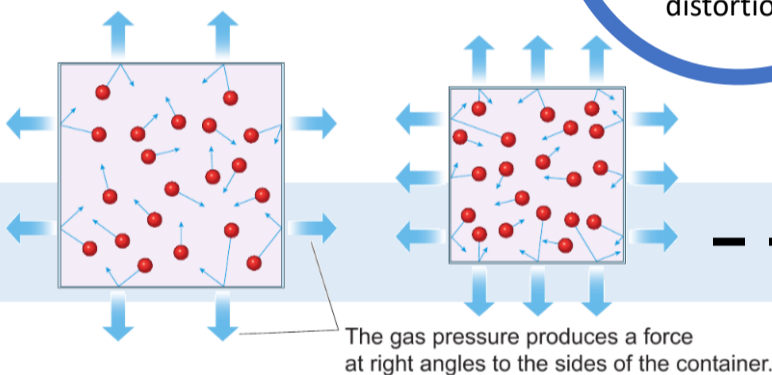


Bending and stretching

What is the difference between elastic and inelastic distortion?

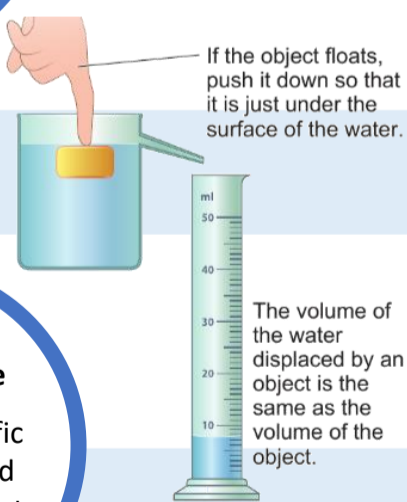


Gas temperature and pressure
How does the temperature of a gas affect its pressure?



Investigating water

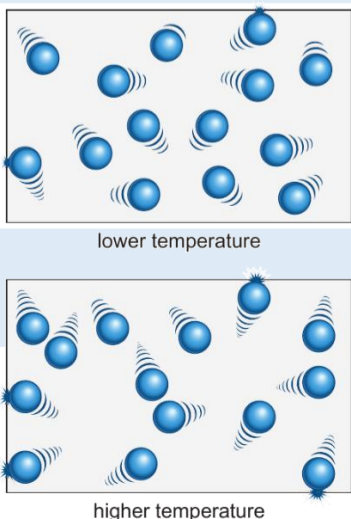
CORE PRACTICAL –
investigate the properties of water by determining the specific heat capacities of water and obtaining a temperature-time graph for melting ice.



Energy and changes of state
What does specific heat capacity and specific latent heat mean?

Energy calculations
How can we calculate the energy needed to make a substance melt or evaporate?

Investigating densities
CORE PRACTICAL –
Investigate the densities of solids and liquids.



LESSON 1

Particle density
What happens to particles when a substance changes state?

Retrieve:
KS2 Groups materials as solids, liquids or gases
Observe materials change state when they are heated
P1.1.2 Bending and stretching
States of matter
C1.1 Particles and their behaviour (Particle model, States of matter, melting and freezing)
P2.2.4 energy transfer: particles
P2.3.4 Pressure
SP2 Mass and weight / Newtons third law
SP3 Kinetic theory / work done
SP8 Work done

Make sure you can write definitions for these key terms.

Key terms

state of matter, changing state, density, temperature, thermal energy, specific heat capacity, specific latent heat, gas pressure, Pascal, absolute zero, Kelvin, work done, volume, elastic, inelastic, extension, spring constant