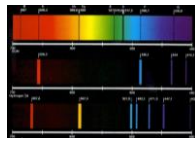


A-LEVEL PHYSICS LEARNING JOURNEY



The Big Bang

Evolution of the Universe



Energy Levels and Spectra

Life Cycle of Stars

Carbon Dating

Exponential Decay

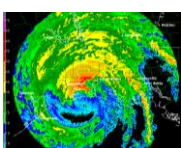
Nuclear fusion

Einstein's mass-energy equation



Nuclear decay

Nuclear Physics

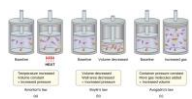


ASTROPHYSICS

NUCLEAR PHYSICS

Cosmology

Astronomical Distances



Doppler Effect



HR Diagram

Analysing Stars

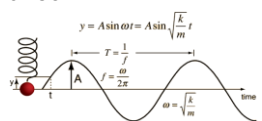
Half-life

Nuclear fission

Binding Energy

Damping

Resonance



Gravitational Fields

Kepler's Laws

Coulomb's Law

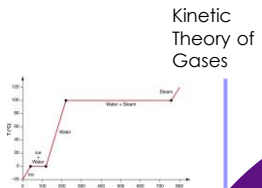
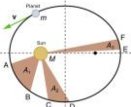
Electric Potential

Charged Particles in a Magnetic Field

Radio-activity

Transformers

$$F = G \frac{M_1 M_2}{r^2}$$

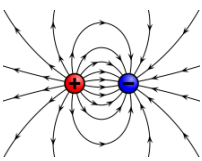


THERMAL PHYSICS

FIELDS

Specific Latent Heat

Circular and SHM



Electric Fields

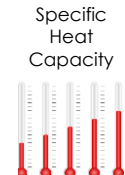
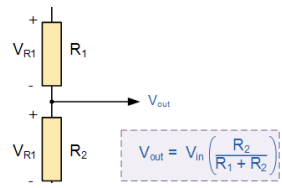
Gravitational Potential

Newton's Law of Gravitation

Charged Particles in an E-Field

Magnetic Fields

EM Induction



Year 13

Thermal Physics

Resistivity

Analysing Circuits

Kirchhoff's First Law

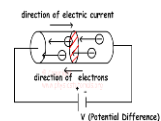
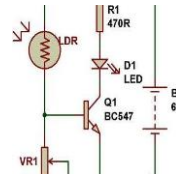
Combining Resistors

Resistance

Momentum

Can you find the value of x?			
+	+	=	2
+	+	=	4
+	+	=	7
-	-	=	1

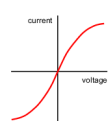
ELECTRICITY



Electrical Energy

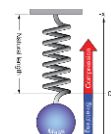
Potential Divider

IV Characteristics



Pd and EMF

Electrical Current

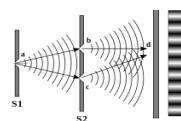


Using excel and spreadsheets to analyse data

Hooke's Law and Young's Modulus

Density and Pressure

Superposition of waves

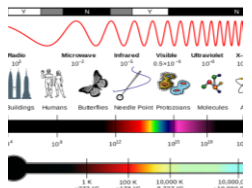


Stationary waves

Conservation of Energy



Power



WAVES

FORCES & MATERIALS

Diffraction and polarisation

Total Internal Reflection

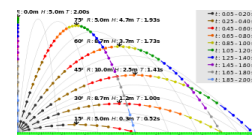
Young's Double Slit Experiment

Kinematics and the motion of bodies

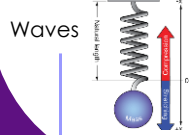
Newton's Laws of Motion

Archimedes' Principle

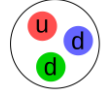
Deforming Materials



Reflection and refraction

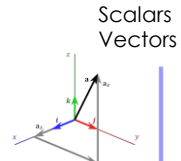


Quantum Physics



Quarks

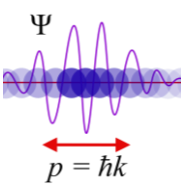
The nucleus



Scalars & Vectors

Induction tasks

Wave-Particle Duality



The Photon Model

The Photoelectric Effect

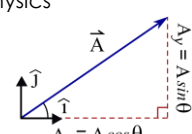
Anti-particles, hadrons and leptons

Alpha Particle Scattering



Particle Physics

Foundations of Physics



Year 12

