

Physics  
Form 4  
(2020 - 2021)

Week	Topic / Content Area
1-4	<u>Position and Movement</u> Position, distance and displacement Speed and velocity Uniform motion Acceleration Equations of uniformly accelerated motion Vertical motion under gravity
5-8	<u>Force and Motion</u> Newton's first law of motion Action of forces Addition and resolution of forces Newton's second law of motion Free body diagrams Newton's third law of motion Mass and weight
9-10	<u>Work, Energy and Power</u> Mechanical work Potential energy (PE) Kinetic energy (KE) Law of conservation of energy Power
11-12	<u>Momentum</u> Momentum Change in momentum and net force Law of conservation of momentum Elastic and inelastic collisions
13-14	Test and Revision
	First term Exam
15-16	<u>Temperature, Heat and Internal Energy</u> Temperature and thermometers Heat and internal energy <u>Heat capacity and specific heat capacity</u>
17	<u>Transfer of Heat</u> Structure of matter Conduction Convection Radiation

Week	Topic / Content Area
18-19	<u>Change of State</u> Three states of matter Evaporation Energy transfer during the change of state Specific latent heat of fusion Specific latent heat of vaporization
20-22	<u>Nature of Wave</u> Nature of wave Transverse and longitudinal waves Description of wave Particle motion in transverse and longitudinal waves
23-24	<u>Properties of Wave</u> Ripple tank Stroboscope Reflection, refraction and diffraction of wave Interference of wave
25-26	<u>Wave Nature of Light</u> Evidence for wave nature of light Wave nature of light
27-28	<u>Reflection and Refraction of Light</u> Light Reflection of light Refraction of light Total internal reflection
29	<u>Lenses</u> Convex and concave lenses Construction rules for image formed by lenses Image formation by lenses
30-31	<u>Sound</u> Wave nature of sound Properties of sound Audible sound and ultrasound Musical note Noise
32	Revision
	Final Exam

Assignment:

1. Chapter test
2. Experiment or demonstration
3. Diary Exercise per day

Continuous Assessment:  
20% Uniform test