

PHYSICS 7-9

7th grade				
<p>Measuring</p> <p>tape measure, scale, measuring cylinder, uncertainty, result, graph, observation, conclusion, unit, quantity</p>	<p>Waves</p> <p>wave, oscillation, period of oscillation, wavelength, frequency, transversal wave, longitudinal wave, compression, rarefaction, amplitude, pendulum, propagation</p>	<p>Sound</p> <p>speed of sound, medium, sound level, pitch, decibel, noise, hearing range, infrasound, ultrasound, hearing, absolute threshold of hearing, pain threshold</p>	<p>Light</p> <p>Light ray, light source, transparent, absorb, emit, white light, spectrum, , ultraviolet, infrared, mirror, lens, convex, concave, plane mirror, boundary, normal (to the boundary), angle of incidence, angle of reflection, angle of refraction, incident light ray, reflected ray, refracted ray , reflection, refraction, total internal reflection, image, disperse, converge, focal point/focus, focal length, main axis</p>	<p>Astronomy</p> <p>Solar system, planet, moon, comet, asteroid, galaxy, astronomical unit, light year, cosmic microwave radiation, sunspot</p>
8th grade				
<p>Mechanics: motion</p> <p>motion, distance, displacement, time, speed, average speed, velocity, acceleration, uniform motion, uniform acceleration, constant, gradient/slope, acceleration of</p>	<p>Mechanics: forces</p> <p>interaction, remote interaction, contact interaction, force, attracting force, repelling force, action (force), reaction (force), newton (unit), Newton’s laws,</p>	<p>Mechanics: work, energy, power</p> <p>Mechanical energy, kinetic energy, potential energy, energy dissipation, electrical energy, elastic (potential) energy, chemical energy, light energy, work, power,</p>	<p>Thermodynamics</p> <p>state of matter / phase, solid, liquid, gas, temperature scale, kelvin scale, Celsius scale, centigrade, absolute zero temperature, melting point, boiling point, thermal expansion, coefficient of</p>	

gravity, state of motion, at rest	mass, weight, force of gravity, resultant force, tension, normal reaction force, friction static friction, dynamic friction, coefficient of dynamic/static friction, air resistance, buoyancy, upthrust, density, pressure, hydrostatic pressure, air pressure,	efficiency, center of mass, equilibrium, stability, lever, inclined plane, pulley	thermal expansion, substance, bimetal strip, thermal energy, specific heat capacity, heat transfer, thermal conductor, thermal insulator, conduction, convection, radiation, thermal insulation, phase change/phase transition, melting, freezing, vaporization, condensation, deposition, sublimation, evaporation, specific latent heat, thermal equilibrium, global warming, greenhouse effect	
9th grade				
Electricity Electric charge positive charge, negative charge, neutral, atom, electron, proton, neutron, nucleus, electric force, attracting, repelling, polarization of charge, electric field, voltage (potential difference), electric current, electrical circuit, fuse, serie/ parallel coupling/connecting, component, cell, battery, lamp, switch, conductor, insulator, voltmeter, ammeter, supply voltage, power socket, plug, resistance, resistor, Ohm's law,	Magnetism Magnet, bar magnet, permanent magnet, electromagnet, magnetic field, north/south pole, compass, coil/inductor, electromagnetin induction, core, induce, generator, direct current, alternating current, power grid, high voltage, transformer, primary circuit, secondary circuit, iron core, power plant, renewable energy resource, non-renewable e.r., fossil fuel, nuclear fuel, biomass, oil, natural gas, biomass, coal,	Microscopic structures and radiation quark, lepton, molecule, strong interaction, strong interaction, fusion, fission, matter, radiation, electromagnetic radiation, particle radiation, ionizing/non-ionizing radiation, alpha/beta radiation, gamma radiation, X-rays (X-ray radiation), ultraviolet radiation, visible light, infrared radiation, microwaves, radio waves, speed of light, isotope, atomic number, mass number,		

short circuit, electrical power, thermostat, (circuit board, thermistor, NTC/PTC thermistor, diode, LED, integrated circuit, transistor, signal)	nuclear fuel, nuclear waste, hydroelectric power, wind power, geothermal energy, solar panel, solar energy	neutron number, radioactivity, background radiation, activity, nuclear reactor		
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