

# Trilogy (Combined) Higher PHYSICS Checklist – Paper 1

**Green** – topics assessed  
**Black** – may appear as low mark question or via ‘linked questions’  
**Red** – topics NOT assessed

<b>Topic 1 - Energy</b>				
6.1.1 – Energy Changes in a system	Energy Stores and systems			
	Changes in Energy			
	Energy Changes in systems			
	Power			
	<b>Required practical activity 14: Investigating Heat Capacity</b>			
6.1.2 – Conservation and dissipation	Energy Transfers in a system			
	Efficiency			
6.1.3 National and Global Energy resources	Energy Resources			
	Wind, Solar and Geothermal			
	Hydroelectricity, Waves and Tides			
	Trends in Energy uses			
<b>Topic 2 - Electricity</b>				
6.2.1 Current, Potential Difference and resistance	Standard circuit diagram symbols			
	Electrical charge and current			
	Current, resistance and potential difference			
	Resistors			
	<b>Required practical activity 15: Resistance of a wire + resistors</b>			
	<b>Required practical activity 16: I-V graphs</b>			
6.2.2 Series and Parallel Circuits	Series Circuits			
	Parallel circuits			
	Adding resistors			
6.2.3 Domestic Uses and Safety	AC/DC and potential difference			
	Mains Electricity			
	Plugs and safety			
6.2.4 Energy Transfers	Power			
	Energy Transfer in everyday appliances			

	National Grid			
<b>Topic 3 – Particle Model</b>				
6.3.1 Particle Model of matter	Density			
	Change of state			
	<b>Required practical activity 17: Density of solids and liquids</b>			
6.3.2 Internal Energy and transfers	Internal energy			
	Temperature change in a system			
	Specific latent heat			
6.3.3 Particle model and pressure	Particle motion in gases			
<b>Topic 4 – Atomic Structure</b>				
6.4.1 Atoms and isotopes	Structure of an atom			
	Mass number, atomic number and isotopes			
	Development of the atom			
6.4.2 Atoms and nuclear radiation	Radioactive decay			
	Nuclear equations			
	Half-lives			
	Radioactive Contamination			

## Trilogy (Combined) Higher PHYSICS Checklist – Paper 2

**Green** – topics assessed

**Black** – may appear as low mark question or via 'linked questions'

**Red** – topics NOT assessed

<b>Topic 5 - Forces</b>				
6.5.1 Forces and their interactions	Scalar and Vectors			
	Contact and non contact			
	Gravity			
	Resultant Forces			
6.5.2 Work done and energy transfer	Work done			
6.5.3 Forces and Elasticity	Hooke's Law			
	<b>Required practical activity 18: Hooke's Law and extension</b>			
6.5.4 Forces and motion	Describing motion along a line			
	Distance and displacement			
	Speed			
	Velocity			
	Distance time graphs			
	Acceleration			
	Newton's First Law			
	Newton's second Law			
	Newton's third Law			
	Forces and braking			
	Stopping distance			
	Reaction time			
	Braking distance			
	<b>Required practical activity 19: Force and acceleration</b>			
6.5.5 Momentum (Higher)	Momentum in moving			
	Conservation of momentum			

<b>Topic 6 - Waves</b>				
6.6.1 Waves in air, fluids and solids	Transverse and Longitudinal Waves			
	Properties of waves			
	<b>Required practical activity 20: Ripple tank and waves on a string</b>			
6.6.2 Electromagnetic Waves	Types of EM Waves			
	Properties of EM Waves			
	Uses of EM Waves			
	Refraction			
	Emission and Absorption			
	<b>Required practical activity 21: Emission and absorption of a surface</b>			
<b>Topic 7- Magnetism and Electromagnetism</b>				
6.7.1 Permanent and induced magnets	Poles of a magnet			
	Magnetic Fields			
6.7.2 Motor Effect	Electromagnets and solenoids			
	Flemings left hand rule (Higher only)			
	Electric Motors (Higher only)			