

Trilogy (Combined) FOUNDATION PHYSICS Checklist – Paper 1

Green – topics assessed

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

Red – topics NOT assessed

| | | | | |
|--|---|--|--|--|
| Topic 1 - Energy | | | | |
| 6.1.1 – Energy Changes in a system | Energy Stores and systems | | | |
| | Changes in Energy | | | |
| | Energy Changes in systems | | | |
| | Power | | | |
| | Required practical activity 14: Investigating Heat Capacity | | | |
| 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 | | | |
| Topic 2 - Electricity | | | | |
| 6.2.1 Current, Potential Difference and resistance | Standard circuit diagram symbols | | | |
| | Electrical charge and current | | | |
| | Current, resistance and potential difference | | | |
| | Resistors | | | |
| | Required practical activity 15: Resistance of a wire + resistors | | | |
| | Required practical activity 16: I-V graphs | | | |
| 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 | | | |
| Topic 3 – Particle Model | | | | |
| 6.3.1 Particle Model of matter | Density | | | |
| | Change of state | | | |
| | Required practical activity 17: Density of solids and liquids | | | |
| 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 | | | |
| Topic 4 – Atomic Structure | | | | |
| 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) FOUNDATION PHYSICS Checklist – Paper 2

Green – topics assessed

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

Red – topics NOT assessed

| Topic 5 - Forces | | | | |
|-------------------------------------|--|--|--|--|
| 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 | | | |
| | Required practical activity 18: Hooke's Law and extension | | | |
| 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 | | | |
| | Required practical activity 19: Force and acceleration | | | |
| 6.5.5 Momentum (Higher) | Momentum in moving | | | |
| | Conservation of momentum | | | |

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