

## Revision List for 5<sup>th</sup> Year Physics November Exam 2025

| <b>Energy Section in OneNote</b> | <b>Learning Outcomes</b>                                                                                                                                                                                                                                                                                                                                                                          | <b>revised</b>                                                                                                                                   |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>L1</b>                        | <ul style="list-style-type: none"> <li>I can define temperature and am able to name 3 different temperature scales</li> <li>I know the SI Temperate Scale is Kelvin</li> <li>I can define what a thermometric property is</li> <li>I can give the thermometric property of common thermometers such as the mercury thermometer and a digital thermometer and a non-contact thermometer</li> </ul> | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>                                                         |
| <b>L2</b>                        | <ul style="list-style-type: none"> <li>I can define Heat Capacity and Specific Heat Capacity and be able to give one difference between them</li> <li>I can complete calculations involving heat capacity, energy and temperate change</li> <li>I can complete calculations involving Specific heat capacity, energy, mass and temperate change</li> </ul>                                        | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>                                                         |
| <b>L3</b>                        | <ul style="list-style-type: none"> <li>I can define Specific Latent Heat of Fusion and Specific Latent Heat of Vaporisation and be able to give one difference between them</li> <li>I can complete calculations involving both Specific Latent Heats, energy and mass</li> <li>I can calculate how much energy is needed to change a certain mass of ice to steam</li> </ul>                     | <input type="checkbox"/><br><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><br><input type="checkbox"/> |
| <b>L4/L5</b>                     | <ul style="list-style-type: none"> <li>I can draw a labelled diagram of the experiment to find the specific heat capacity of water</li> <li>I can draw a labelled diagram of the experiment to find the Latent heat of fusion of ice.</li> <li>I know 2 reasons why I crush the ice for the Latent Heat experiment</li> </ul>                                                                     | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>                         |
| <b>L6</b>                        | <ul style="list-style-type: none"> <li>I can define Conduction, Convection and Radiation as the three methods of heat transfer.</li> <li>I can give an everyday example of where we see each method of heat transfer</li> <li>I can briefly describe an experiment to demonstrate each method of heat transfer</li> <li>I can define what a Heat Pump is</li> </ul>                               | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>                         |

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|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|           | <ul style="list-style-type: none"> <li>• I can give 2 everyday examples of where we use a heat pump</li> <li>• I can briefly explain how heat is moved via latent heat of vaporisation in a heat pump</li> <li>• I can explain why we lose heat by sweating via latent heat of vaporisation</li> </ul>                                       | <input type="checkbox"/><br><br><br><input type="checkbox"/><br><br><input type="checkbox"/> |
| <b>L7</b> | <ul style="list-style-type: none"> <li>• I can define U-Value and the Solar Constant</li> <li>• I can perform calculation involving U-Value, temp difference, rate of energy flow (or power) and area</li> <li>• I can explain how I can decrease the U-value of a house</li> <li>• I know that good insulators have low U-Values</li> </ul> | <input type="checkbox"/><br><br><br><input type="checkbox"/><br><br><input type="checkbox"/> |

| <b>Optics Section in OneNote</b> | <b>Learning Outcomes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>revised</b>                                                                                                                                                                                       |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>L1</b>                        | <ul style="list-style-type: none"> <li>• Do I know the 2 laws of reflection off by heart</li> <li>• Can I draw a ray diagram of a reflected ray with the correct labels?</li> <li>• Can I draw a ray diagram of how a virtual image is formed in a plane mirror?</li> <li>• Do I know the definitions for the following: <ul style="list-style-type: none"> <li>• Real image</li> <li>• Virtual image</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                 | <input type="checkbox"/><br><br><br><br><br><input type="checkbox"/><br><input type="checkbox"/>                                                                                                     |
| <b>L2/L3</b>                     | <ul style="list-style-type: none"> <li>• Can I define refraction</li> <li>• Can I explain what refractive index is?</li> <li>• Give the refractive index of glass, can I calculate the refractive index going from glass to air?</li> <li>• Can I state both laws of refraction</li> <li>• Can I use the 1<sup>st</sup> law to do calculations to find missing angles or refractive index values?</li> <li>• Can I state Snell's Law</li> <li>• Can I calculate the speed of light in a material if given the refractive index and vice versa.</li> <li>• Can I calculate the refractive index of a material from a graph of Sin i vs Sin r.</li> <li>• Can I draw a graph to verify Snell's Law?</li> </ul> | <input type="checkbox"/><br><br><br><br><br><input type="checkbox"/><br><input type="checkbox"/><br><br><br><br><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |

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