**Preparing for Transition from Key Stage 4 to Key Stage 5**

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| **Subject** | **Qualification** |
| **Physics** | **A Level** |
| **Recommended Reading Materials** | **Recommended Websites** |
| * A Short history of nearly Everything - Bill Bryson * Big Bang - Simon Sing | <https://www.physicsandmathstutor.com/> - Physics & Maths Tutor  Newton’s Laws - <https://www.youtube.com/watch?v=kKKM8Y-u7ds> |
| **Preparation Tasks** | **Recommended Research** |
| * Even the greatest natural philosophers in History, such as Isaac Newton, made mistakes in their thinking which were overturned by future scientific experimentation and theories. * Research how Scientists changed their mind about the nature of light. Is it a Wave or a collection of particles? | <http://www.schoolphysics.co.uk/age16-19/Wave%20properties/Wave%20properties/text/Theories_of_light/index.html> - School Physics  <http://www.thestargarden.co.uk/Newtons-theory-of-light.html> - The Star Garden  <https://global.canon/en/technology/s_labo/light/001/11.html> - Canon Global |
| **Recommended trips or visits this Summer** | |
| * Check out online resources from the Greenwich observatory:   <https://www.rmg.co.uk/discover/behind-the-scenes/blog/night-sky-highlights-april-2020>   * Science museum | |
| Tasks to Complete | |
| * Research and write an assay explaining how Scientists have changed their mind about the nature of light. Is it a Wave or a collection of particles? Make sure you explain both models and present all the evidence supporting each model, including Young’s double slit experiment. * Log on to Seneca using this link:   <https://app.senecalearning.com/dashboard/join-class/ekopsffj6o>. Complete section 6 “Waves” | |