



# APPLIED SCIENCE

## SUMMER WORK

This work is set to help you make the transition from Year 11 to your Post 16 studies. It is very important that you complete it to the best of your ability, as this will help you start building the skills you will need to do well at the North Bristol Post 16 Centre.

The first tasks here are the compulsory element of the summer work and **must be submitted to your teacher in your first lesson for this course.**

| COMPULSORY Summer Tasks:   |  |
|--|--|
| 1. Check that your GCSE knowledge is current and up to standard.   | Complete a set of exam questions relevant to the BTEC course, using your revision guide/BBC bitesize to help you if needed.<br>Questions are <a href="#">here</a> .<br>If you did Combined Science and/or foundation tier, use these <a href="#">bitesize links</a> to close the gaps.   |
| 2. Sign up to Seneca to start getting a head start on your science learning.   | Full instructions on how to sign up and get started are <a href="#">here</a> .<br>Your teachers will then be able to see what you have been doing and how you've been getting on.<br>We have set a range of online activities to work through.   |
| 3. Produce a <u>researched</u> and <u>referenced</u> essay on a relevant scientific topic to practice your assignment writing skills. A vital part of the BTEC science course. | Your essay should be one side of A4 (max. size 12 font). It should be fully researched using a range of online and/or paper sources.<br>It should be fully referenced to show where you got the information. No copying and pasting. Referencing help can be found <a href="#">here</a> .<br>Your choice of topics are: <ul style="list-style-type: none"><li>• What is Parkinson's disease and how is it treated?</li><li>• How are electromagnetic waves used in communication?</li><li>• What are the three main types of bonding and how do these affect the structure and properties of substances?</li></ul> |

**IS IMPORTANT TO NOTE THAT YOUR SUBJECT TEACHERS WILL USE THIS WORK TO HELP ASSESS YOUR SUITABILITY FOR, AND COMMITMENT TO, YOUR COURSE.**



# NORTH BRISTOL

## Post 16 Centre



We have included lots of ideas below for wider reading and research, which will help you make the best possible start on this course. We recommend that you use your extended summer break to explore as many of these suggestions as you can so that you start your P16 learning in a strong position.

| RECOMMENDED Additional Preparation: |   |
|-------------------------------------|---|
| Online News Articles / Journals     | <ul style="list-style-type: none"><li>• <a href="#">Science &amp; Environment - BBC News</a></li><li>• <a href="#">New Scientist</a> offers podcasts, videos, newsletters and magazines of current science affairs.</li><li>• <a href="#">The Royal Society of Chemistry (RSC)</a> provides periodic table resources and information on all elements.</li><li>• <a href="#">Young Scientist Journal</a> is an international peer-review science journal written, reviewed and produced by school students aged 12 to 20.</li><li>• <a href="#">Big Picture</a> (The Wellcome Trust's 16-19 resources)</li></ul>             |
| Podcast(s)                          | <ul style="list-style-type: none"><li>• <a href="#">Chemistry in its Element (Series 1 / Series 2)</a> is a podcast produced by Chemistry World - the Royal Society of Chemistry's magazine. Series 1 provides a brief summary for each element in the periodic table, series 2 does the same for common compounds you would come across in daily life.</li><li>• <a href="#">Scientific American</a>: Short podcasts to keep up to date with scientific news</li><li>• <a href="#">Nature</a>: Podcasts on corona virus and antibody testing</li><li>• <a href="#">BBC science</a> podcasts on a range of topics</li></ul> |
| Online Course(s)                    | <a href="#">Seneca</a> (part of your set task)  |
| Wider Reading                       | <ul style="list-style-type: none"><li>• 'The Body' By Bill Bryson</li><li>• 'Periodic Tales: The Curious Lives of the Elements' By Hugh Aldersey-Williams</li><li>• 'The Science of Everyday Life: Why Teapots Dribble, Toast Burns and Light Bulbs Shine' By Marty Jopson</li><li>• 'Storm in a Teacup: The Physics of Everyday Life' By Helen Czerski</li></ul>   |
| Films / Documentaries               | <ul style="list-style-type: none"><li>• <a href="#">Psychedelic drug trial - treating depression</a></li><li>• <a href="#">Brian Cox's adventures in space and time</a></li><li>• <b>Films with a science theme:</b> Memento; The Martian; Hidden Figures; Contact</li></ul>  |
| Websites to Explore                 | <a href="#">Khan Academy</a><br><a href="#">CrashCourse - YouTube</a>   |

**IS IMPORTANT TO NOTE THAT YOUR SUBJECT TEACHERS WILL USE THIS WORK TO HELP ASSESS YOUR SUITABILITY FOR, AND COMMITMENT TO, YOUR COURSE.**