


Bosworth Academy Super Curriculum



Science

 Collaboration	 Citizenship
 Communication	 Critical Thinking
 Creativity	 Character

KS3 SCIENCE SUPER CURRICULUM

YEAR 8: B2.1 Health and Lifestyle, C2.1 Periodic Table and P2.1

Electricity & Magnetism

 <p>Make a youtube video showing people the rules of series and parallel circuits. Share it with people you know.</p>	 <p>Read this information about Dimitri Mendeleev. What lasting impact do his discoveries have in today's world?</p>	 <p>Read this webpage about magnets. Which fact was the most interesting to you?</p>
 <p>Watch this video about the war on drugs. What do you think we could do at school to help support the war on drug use?</p>	 <p>Make a healthy eating program for someone at home. Try to include information about the different types of food they should be eating.</p>	 <p>'Electricity is the best invention ever'. Can you come up with 3 evidenced examples to support this argument and 3 which support the alternative argument.</p>
 <p>'Science would not exist without humans'. What do you think about this statement? Can you think of some logical argument to support your point of view?</p>	 <p>John Dalton has his birthday in September. Find out about his life and how it links to your chemistry topic. Can you write a eulogy for him?</p>	 <p>Research into the environmental effects of mining metals. Can you come up with a solution for one of the mining impacts?</p>
 <p>Design an experiment at home to determine how the smell of different foods affects the amount of amylase you produce in your mouth. Share your method and findings.</p>	 <p>With a friend, design a mime/model/poster to explain how food is moved through the digestive system.</p>	 <p>Static electricity impacts our lives every single day. Can you design some sort of static electricity t-shirt and then have it made up?</p>

Reading and watching suggestions to develop your learning of this topic



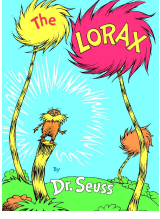

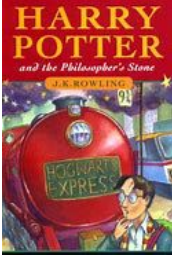
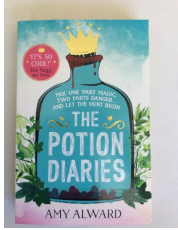
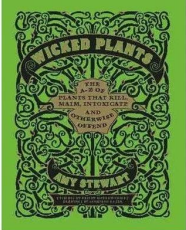
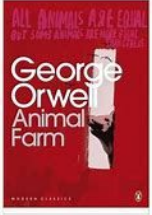
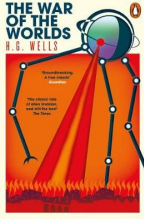
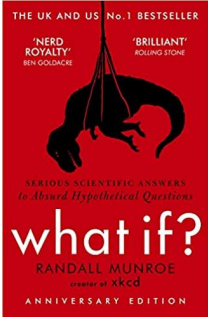
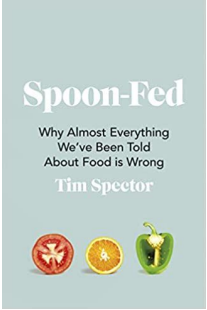
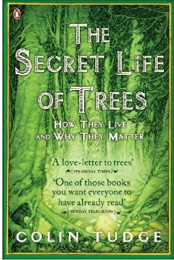
<p>Supersize Me - 12</p>  <p>"I'm Lovin' it!" Fast-food franchises, floating in space. "They eat anything!" "The limits are!" SUPERSIZE ME A Film of Epic Proportions</p>	<p>X-Men 12</p>  <p>TRUST A FEW FEAR THE REST X-MEN</p>	<p>The Core 12A</p>  <p>THE CORE THE ONLY WAY OUT IS IN COMING SOON</p>
<p>Why does asparagus make your wee smell? - Andy Brunning</p>  <p>WHY DOES ASPARAGUS MAKE YOUR WEE SMELL? AND 57 OTHER CURIOUS FOOD AND DRINK QUESTIONS ... ANDY BRUNNING</p>	<p>The Iron Giant - Ted Hughes</p>  <p>THE IRON GIANT Ted Hughes Illustrated by Chris Madden</p>	<p>The periodic table book</p>  <p>THE PERIODIC TABLE BOOK A VISUAL ENCYCLOPEDIA OF THE ELEMENTS</p>
<p>Periodic tables - Hugh Alderney-Williams</p>  <p>PERIODIC TALES Hugh Alderney-Williams THE CURIOUS LIVES OF THE ELEMENTS "Incredibly engaging, consistently makes one sit up or say 'ah!'" Sunday Times</p>	<p>Stuff Matters - Mark Miodownik</p>  <p>Stuff Matters Mark Miodownik</p>	<p>The Science of Spice - Dr. Stuart Farrimond</p>  <p>THE SCIENCE OF SPICE UNDERSTAND FLAVOUR, CONNECTIONS AND REVOLUTIONISE YOUR COOKING DR STUART FARRIMOND</p>
<p>Inner Space</p>  <p>INNER SPACE</p>	<p>how to - Randall Munroe</p>  <p>THE UK AND US BESTSELLER how to RANDALL MUNROE created by XKCD</p>	<p>The doctor will see you now - Dr. Amir Khan</p>  <p>DR AMIR KHAN The Doctor Will See You Now The highs and lows of my life as an NHS GP</p>

KS3 SCIENCE SUPER CURRICULUM

YEAR 8: B2.2 Ecosystem Processes, C2.2 Separation Techniques & P2.2 Energy















 <p>Listen to this ted talk and make a poster for school to show how we can reduce the chances of drought.</p>	 <p>Which separation technique is the most useful in the recycling industry? Why do you think this?</p>	 <p>Balance the symbol equations for respiration and photosynthesis.</p>
 <p>Research into energy providers that use renewable energy resources. Discuss these energy providers with your family.</p>	 <p>Watch this documentary on plants. Can you summarise the different adaptations the plants have for their environments?</p>	 <p>Work with a friend/group of friends to make a feedweb the size of a wall. Take a photo of it and show it to your teacher.</p>
 <p>The Earth orbits the sun in the Goldilocks region. What do you think this means in terms of the amount of radiation it receives from the sun? This video may help you.</p>	 <p>Can you design and make a simple generator at home? You may need to do a little bit of research to help you.</p>	 <p>Make/draw a detailed cross section of a leaf. Label the main parts and explain their function.</p>
 <p>Visit the Magna Science Adventure Centre to find out loads of information on natural science and technology.</p>	 <p>Some families struggle to find the money for food in January. Can you think of a way to fundraise for needy people in your local community?</p>	 <p>Explain to someone you know 'Why you are alive?' Help</p>

Reading and watching suggestions to develop your learning of this topic

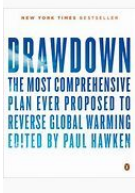

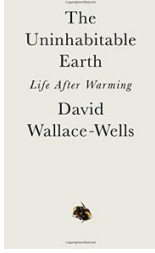


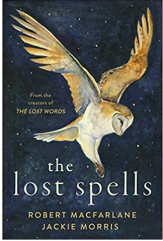
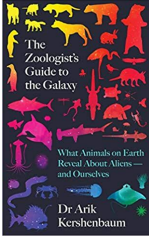
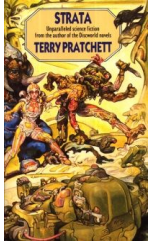
<p>BBC Planet Earth</p> 	<p>Happy Feet - U</p> 	<p>The Lorax - Dr Seuss</p> 
<p>Wall e - U</p> 	<p>Harry Potter - J.K.Rowling</p> 	<p>The Potion Diaries - Amy Alward</p> 
<p>Wicked Plants - Amy Stewart</p> 	<p>Animal Farm - George Orwell</p> 	<p>The war of the worlds - H.G. Wells</p> 
<p>What it - Randall Munroe</p> 	<p>Spoon Fed - Tim Soector</p> 	<p>The Secret Life of Trees - Colin Tudge</p> 

KS3 SCIENCE SUPER CURRICULUM

YEAR 8: B2.3 Adaptation and Inheritance, C2.3 Metals and Acids, C2.4 The Earth and P2.3 Motion and Pressure

<p></p> <p>Try to explain how a glass barometer works.</p> 	<p></p> <p>Can you explain how the animals and plants in the arctic and antarctic are adapted to their environments? Can you talk about how the environments are changing and how the animals may be less adapted in the future, or even how those adaptations may change.</p>	<p></p> <p>The theory of evolution says that all life evolved from simple single celled organisms. Can you write a coherent argument to explain how this happened?</p>
<p></p> <p>Write a blog explaining why the Carbon Cycle is being disrupted in today's modern world</p>	<p></p> <p>With a partner create a TED talk about how long plastic takes to decompose and what alternative products there are available. This video might give you some ideas.</p>	<p></p> <p>Why are aeroplane windows larger on the inside, compared to the outside?</p> 
<p></p> <p>After watching the documentary what advice would you give to someone wanting to build their own Gravity Racer?.</p>	<p></p> <p>Can you explain how the himalayyas were formed?</p>	<p></p> <p>Design (and possibly create) a Gravity Racer!</p>
<p></p> <p>Summarise the main barriers to diversity in STEM discussed in this article.</p>	<p></p> <p>Teach someone at home about Polymerisation using a cartoon you have created.</p>	<p></p> <p>Plan an event to celebrate Darwin Day for your friends!</p>

Reading and watching suggestions to develop your learning of this topic

<p>Drawdown the comprehensive plan ever proposed to reverse global warming - Paul Hawken</p> 	<p>No one is too small to make a difference - Greta Thunberg</p> 	<p>The uninhabitable Earth: Life after global warming - David Wallace-Wells</p> 
<p>Interstellar - 12A</p> 	<p>The Day After Tomorrow - 12</p> 	<p>BBC Blue Planet</p> 
<p>The Lost Spells - Robert Macfarlane & Jackie Morris</p> 	<p>The Zoologist's Guide to the Galaxy - Dr. Arik Kershenbaum</p> 	<p>The ten equations that rules the world - David Sumpter</p> 
<p>Strata - William Smith</p> 	<p>Strata - Terry Pratchett</p> 	<p>The Fabric of civilization</p> 