SUBJECT CURRICULUM OVERVIEW – Science Biology, Chemistry, Physics

Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Seasonal change **Key Scientists** **John Dalton (1766 – 1844)** Famous for the amount of time he kept a weather diary for.	Everyday Materials **Key Scientists** **John Boyd Dunlop (1840 – 1921)** - **Charles Macintosh (176 – 1843)** - **John McAdam (1756 – 1836)** –	Animals including humans **Key Scientists** **Carl Linnaeus (1707-1778)** - The inventor of modern scientific classification. **Amy Vedder (1951 -)** – Wildlife biologist and conservationist	Seasonal change Key scientists **Gabriel Fahrenheit (1686 – 1736) –** Inventor of the first modern thermometer.	Plants Key scientists **Barbara McClintock (1902 – 1992)** **Joseph Banks (1743 – 1820)** **Gregor Mendel (1822 -1884)** **Carl Linnaeus (1707 – 1778)** **George Forrest (1873 – 1932)**	Seasonal Change Key scientists **Inez Fung (1941 -**) – Studies climate change
Year 2	Uses of everyday Materials **Key Scientists** **Leo Hendrik Baekeland (1863 -1944)** - **Goodyear(1800- 1860)** –	Uses of everyday Materials	Living things and their habitats **Key scientists** **Kate Humble (1968 -)** – naturalist and presenter on BBC of wildlife programs **Steve Backshall (1973 -)–** naturalist and presenter on BBC of wildlife programs **Chris Packham (1961 -**) - naturalist and presenter on BBC of wildlife programs	Living things and their habitats	Animals including humans **Key scientists** **David Attenborough (1926 -)** http://www.davidattenborough.co.uk/biography/ **Key scientists** **David Attenborough (1926 -)** http://www.davidattenborough.co.uk/biography/	Plants **Key scientists** Barbara McClintock (1902 – 1992) Joseph Banks (1743 – 1820) Gregor Mendel (1822 -1884) Carl Linnaeus (1707 – 1778) George Forrest (1873 – 1932)

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Year 3	Forces and Magnets **Key Scientists** **William Gilbert (1544 – 1603)** - **Hans Christian Oersted (1777 – 1851)** –	Forces and Magnets	Animals including humans **Key scientists** **Diane France (1954 -)** Diane France solves mysteries and crimes by deciphering the stories bones tell her	Rocks **Key scientists** Professor Ian Stewart (contemporary geologist) **Adriana Ocampo (1955 -)** Space geologist http://iwaswondering.org/inez_homepage.html **Friedrich Mohs (1773-1839)** **Inge Lehmann (1888-1993)** **Alfred Wegener (1880 – 1930)** **Tuzo Wilson (1908- 1993)** **Marie Tharp(1920 – 2006)** **Dorothea Bate (1878 – 1951**)	Light **Key Scientists** **James Clerk Maxwell (1831- 1879)** - http://www.clerkmaxwellfoundation.org/html/who_was_maxwell_.html **Thomas Young (1773 – 1829)**	Plants Key scientists Barbara McClintock (1902 – 1992) Joseph Banks (1743 – 1820) Gregor Mendel (1822 -1884) Carl Linnaeus (1707 – 1778) George Forrest (1873 – 1932
Year 4	Electricity **Key Scientists** **Benjamin Franklin (1706-90).** **Charles Augustine Coulomb (1736-1806**). **Alessandro Volta (1745-1827**). **Andre-Marie Ampere (1775-1836).**	Sound **Key Scientists** **Robert Boyle (1627- 1691)** **Ernst Mach (1838-1916).** Described how shock waves are formed. **Heinrich Hertz (1857-94).**	States of matter	States of matter **Key Scientists** **Alfred Barnhard Nobel (1833-1896)** - http://www.nobelprize.org/alfred_nobel/ **Royal Society of Chemistry**	Animals including humans **Key scientists** **Al-Jahiz (9th Century**) – Provided one of the earliest descriptions of food webs. He was working in Baghdad, Iraq, in the early 800s. **Charles Elton (1900 – 1991) –** Initiated the study of animal ecology	Living things and their habitats **Key scientists** Carl Linnaeus (1707 – 1778) – Developed a method for classifying all living things on the planet. http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/linnaeus/
Year 5	Animals including humans **Key Scientists** **Professor Robert Winston (1940 -)** – contemporary scientist	Properties and changes of materials **Key Scientists** **Antoine Lavoisier (1743 - 1794)** **Dmitri Mendeleyev (1834 - 1907)**	Earth and space **Key Scientists** **Aristarchus (310 – 230 B.C.).** He was the first to figure out that the Earth travels around the Sun. **Nicolas Copernicus (1473 – 1543**). Had the idea that Earth revolves on its axis and	Living things and their habitats **Key scientists** There are plenty of contemporary scientists working in this field. Look out for current information on science related to reproduction. For example:	Forces **Key Scientists** **Sir Isaac Newton (1642 – 1727**) – Formulated the laws of motion - http://www.bbc.co.uk/history/historic_figures/newton_isaac.shtml **Christopher Cockerell (1910- 1999)** – Inventor of the hovercraft -	Forces

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		Sir Humphry Davy (1778 - 1829) **John Dalton (1766 - 1844)** **Marie Curie (1967-1934)** **Royal Society of Chemistry** – 'The 175 Faces of Chemistry' provides information on contemporary chemists and chemists of the past - http://www.rsc.org/diversity/175-faces/all-faces	the Earth and other planets orbit around the Sun **Galileo Galilei (1564 – 1642 Edwin Hubble (1889-1953**). **William Huggins**. Showed that stars are made up of the same elements that exist on Earth. **Cecilia Payne-Gaposchkin (1900-79**). **Arthur Eddington (1882-1944).** He was the first to work out what the inside of a star was like. **Professor Brian Cox (1968 -)** Contemporary physicist, presents many BBC programmes) **Heidi Hammel (1960 -)** Astronomer	Kansas State University is currently investigating how to shut down the reproductive ability and desire in pest insects - http://www.sciencedaily.com/releases/2013/08/130826182917.htm Berry J. Brosi, an assistant professor at Emory University in Atlanta, and Heather M. Briggs, a graduate student at the University of California, Santa Cruz found that a loss of bees affects a plant's ability to reproduce. http://www.nytimes.com/2013/07/23/science/loss-of-bees-can-affect-plants-ability-to-reproduce-study-finds.html?_r=0	http://www.design-technology.info/inventors/page11.htm **Archimedes (c.287 - c.212 BC)** – Greek inventor - http://www.bbc.co.uk/history/historic_figures/archimedes.shtml	
Year 6	Living things and their habitats **Key scientists** **Carl Linnaeus (1707-1778)** The following video outlines the work of Carl Linnaeus - http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/linnaeus/ **Evelyn Cheesman (1881 – 1969)** The following video outlines the work of Evelyn Cheesman - http://www.nhm.ac.uk/nat	Electricity **Thomas Edison (1847-1931).** Inventor of the fuse. **Benjamin Franklin (1706-90).** Showed that lightning is caused by electricity. **Charles Augustine Coulomb (1736-1806**). **Alessandro Volta (1745-1827**). Invented the first battery. The volt, the unit of electromotive force, is named after him. **Andre-Marie Ampere (1775-1836).**	Evolution and inheritance **Key Scientists** **Charles Darwin (1809 – 1882)** The following video outlines the work of Charles Darwin - http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/charles-darwin/index.html **Alfred Russel Wallace (1823 - 1913)** The following video outlines the work of Alfred Russel Wallace - http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/wallace/index.html	Animals including humans **Key scientists** **William Harvey (1578 – 1657)** Discovered the circulatory system. http://www.bbc.co.uk/history/historic_figures/harvey_william.shtml	Animals including humans	Light **Key Scientists** **Thomas Young (1773 – 1829)** – Wave theory of light. Double-slit experiment. **Sir David Brewster (1781 – 1868)** - Deduced ``Brewster's law'' giving the angle of incidence that produces reflected light which is completely polarized; invented the kaleidoscope and the stereoscope, and improved the spectroscope **Jean-Bernard-Leon Foucault (1819-1868)** – Accurately measured the speed of light

	ure-online/science-of-natural-history/biographies/evelyn-cheesman/index.html **Sir Hans Sloane (1660 – 1753)** The following video outlines the work of Sir Hans Sloane - http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/hans-sloane/index.html **Gilbert White (1720 – 1793)** The following website outlines the work of Gilbert White - http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/gilbert-white/index.html		**Richard Owen (1804 – 1882)** The following website outlines the work of Richard Owen - http://www.nhm.ac.uk/nature-online/science-of-natural-history/biographies/richard-owen/index.html			