

Science Yearly Overview

Scientific Spotlight – Cultural Capital Opportunities

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	<p>Animals including Humans</p> <p>Ayanna Elizabeth Johnson – drove for marine conservation in the Caribbean.</p>	<p>Habitats</p> <p>Vernard Lewis – built an artificial habitat for insects for investigating pest insect detection and control;</p>	<p>Movement and Feeding</p>	<p>Electricity</p> <p>Garrett Morgan – invented the three light traffic light system</p>	<p>Life Cycles</p> <p>Ernest Everett - pioneered research into cell fertilization, division, hydration and the effects of carcinogenic radiation on cells</p>	<p>Light and Sight</p> <p>Ibn Al- Hazen – work around optics and how we see</p>
Autumn 2	<p>Seasonal Changes</p> <p>Nasir al-Din al-Tusi - an early astronomer who wrote about qibla observation by shadows.</p>	<p>Living Things</p> <p>Daniel Hale Williams – became the first African American on record to have successfully performed pericardium surgery to repair a wound.</p>	<p>Light and Shadows</p> <p>Lewis Latimer – developed the light bulb filament</p>	<p>Dangers to Living Things</p> <p>Alexandra Lewis – worked with students in high school and middle school highlighting research conducted at North American archaeological sites to encourage diversity in the field</p>	<p>Earth and Space</p> <p>Mae Carol Jemison – first black female astronaut and travel into space</p> <p>Neil De Grasse – made the decision to demote pluto from our solar system</p>	<p>Our Bodies</p> <p>Malone Mukwende – developing new systems in identifying illnesses in darker skinned people</p>
Spring 1	<p>Plants</p> <p>Henry Blair invented the Seed-Planter, which allowed farmers to plant more corn using less labour and in a shorter time</p>	<p>Uses of Materials</p> <p>Archie Alexander- An engineer who pioneered a heating and cooling system</p>	<p>What plants need</p> <p>Emmett Chappelle - he developed a method determining vegetation health to measure the amount of photosynthesis occurring in crops,</p>	<p>Human Nutrition</p> <p>Abu Al Qasim Al – Zahrawi – developed tools from surgery such as stitches and other medical instruments</p>	<p>Separating Mixtures</p> <p>Norbet Rillieux - as an African-American inventor and engineer who invented a device that revolutionized sugar processing,</p>	<p>Classifying Living Things</p> <p>Ernest Everett Just - his recognition of the fundamental role of the cell surface in the development of organisms</p>

			allowing scientists to detect plant stress.		making the processing of sugar more efficient, faster, and much safer.	
Spring 2	<p>Comparing Materials</p> <p>Walter Lincoln Hawkins – developed the hard plastic coating to protect telephone cables</p>	<p>Growing Plants</p> <p>George Washington Carver – agricultural scientist who devised 300 products from peanuts and 118 from sweet potatoes including dyes, plastic and gasoline</p>	<p>Rocks and Soils</p> <p>Philip Emeagwali - to develop methods for extracting more petroleum from oil fields</p>	<p>Sound</p> <p>Lewis Latimer – assisted Alexander Graham Bell with his invention of the telephone</p>	<p>Types of Change</p> <p>Elmo Brady - how the acidity of carboxylic acids changed based on the addition of different chemical groups</p>	<p>Changing Circuits</p> <p>Nike Folayan – British electronic engineer who co-founded a charity that campaigns for more diversity in UK engineering</p>
Summer 1	<p>Types of Animals</p> <p>Charles H. Turner - Behavioural scientist is best known for his discovery that <u>insects</u> can hear</p>	<p>Changing Shape</p> <p>Ben Montgomery - Pioneered the steam operated propeller</p>	<p>Parts of Plants</p> <p>Percy L. Julian - American research chemist and a pioneer in the chemical synthesis of medicinal drugs from plants.</p>	<p>Grouping Living Things</p> <p>Dr Thomas P Lecky – developed breeding techniques to invent new cattle breeds that are more sustainable to the Jamaican climate.</p>	<p>Materials</p> <p>Samuel P Massie – worked on isotopes for the Manhattan Project to develop atomic bombs in World War II.</p>	<p>Evolution and Inheritance</p> <p>Charles Richard Drew – searched in the field of blood transfusions, developing improved techniques for blood storage, and applied his expert knowledge to developing large-scale blood banks early in World War II</p>
Summer 2	<p>Identifying Materials</p> <p>Jabir Ibn Hayyan – created the first system to classify chemical substances</p>	<p>Feeding and Exercise</p> <p>Marie Daly - the first African-American woman to receive a Ph.D. in chemistry opened up a new understanding of how foods and diet can affect the health of the heart and the circulatory system.</p>	<p>Magnets and Forces</p> <p>Alexander Miles - best known for being awarded a <u>patent</u> for automatically opening and closing <u>elevator</u> doors.</p>	<p>Changes of State</p> <p>Madam CJ. Walker – first female self-made millionaire in America to develop hair care products using her knowledge of chemical reactions</p>	<p>Forces</p> <p>Andrew Beard – pioneered the railway cart coupler patent.</p>	<p>Review and celebration</p> <p>Patricia Bath – Pionnered laser eye surgery</p>