



Barby C of E Primary School
DT Long Term Plan
 CYCLE A 2020 - 21

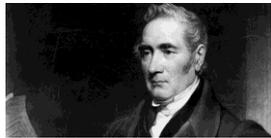


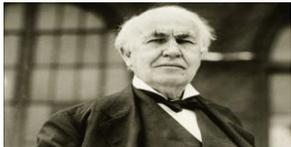
	Autumn 1 (1)	Autumn 2 (2)	Spring 1 (3)	Spring 2 (4)	Summer 1 (5)	Summer 2 (6)
Year 1 and 2	Sliders and Levers <i>Moving book</i>		Textiles: Templates and joining techniques <i>Medical bag</i>		Food: Preparing vegetables <i>Salad from school grown lettuce, cress</i>	
Year 3		Shell Structures <i>Keep safe box for precious stone</i>	Food: Healthy and Varied Diet <i>Healthy pizza</i>			Levers and linkages <i>Pop-up information book (2 pages)</i>
Year 4, 5 and 6		Electrical Systems: Simple Circuits and switches <i>Reading light</i>		Pneumatics: <i>Moving toy for Hamleys</i>		Textiles: 2D Shape to 3D Product <i>Viking purse</i>

Structures
 Food
 Electrical Systems
 Textiles
 Mechanical Systems

Significant People who have changed the world

KS2 NC DT Programme of Study: understand how key events and individuals in design and technology have helped shape the world

Year Group	Inventor	Most Famous for	Information	Curriculum Link
Year 3/4	Imhotep 	Designing step Pyramid of Djoser	Imhotep is the first civil engineer in the world on record, who is known for. But that's not his only contribution to the world, he was the first to introduce the use of columns into architecture and now there is hardly any building constructed without columns.	Y3/4 History: Ancient Egypt
Year 3/4	George Stephenson 	Built first railway line in the world	Rightly called the 'Father of Railways', George built the first public intercity railway line in the world. He was an English civil and mechanical engineer who invented the rail gauge, which is now the standard gauge for most countries.	Y3/4 Geography: European Study
Year 3/4	Thomas Telford - (1757 – 1834) 	Famous for: Menai Bridge in Wales London Bridge Proposal	A Scottish civil engineer, architect and stonemason, and road, bridge and canal builder. After establishing himself as an engineer of road and canal projects in Shropshire, he designed numerous infrastructure projects in his native Scotland, as well as harbours and tunnels. Thomas Telford proposed a London Bridge design for a 600ft span cast iron arch bridge across the Thames, 1800.	Y3/4 Geography: London; Rivers
Year 3/4	Isambard Kingdom Brunel 	Clifton Suspension bridge	Brunel was a popular civil engineer from Britain, responsible for building bridges and also the first major British railway. He was also the first one to build a tunnel under a navigable river. He brought a revolutionary change in the way public transport functioned.	Y3/4 Geography: Rivers
Year 3/4	Sir Isaac Newton 	Discovering gravity	An English mathematician, physicist, astronomer, theologian, and author who is widely recognised as one of the most influential scientists of all time and as a key figure in the scientific revolution. developed the principles of modern physics, including the laws of motion and is credited as one of the great minds of the 17th-century Scientific Revolution.	Year 3/4 Science: Forces

Year 3/4 and Y5/6	Archimedes		Greatest mathematician of his time The Archimedes screw	Known as a gifted mathematician, engineer, inventor, astronomer and physicist. Made some of the most influential contributions to the field of engineering. He is a true inspiration to all aspiring mechanical engineers. The genius from Greece designed stuff to support his home city – Syracuse. He developed techniques to use heat rays and mirrors to burn the ships of their enemies and developed the famous Archimedes’ screw to remove bilge water from ships as well as the block and tackle pulley system. His inventions have been quite useful to his city and the people.	Y3/4 History: Ancient Greece Y5/6: DT Pulleys
Year 5/6	Marie Curie		Discovering radium for treatment of disease	A towering figure in the history of chemistry and physics, Marie Curie is most famous for the discovery of the elements polonium and radium. She discovered radiation that could kill human cells. During World War 1 she was sent to work with French builders and she helped design the x-ray.	Year 5/6 History: Aspect of History beyond 1066: Advances of Medicine
Year 5/6	Nikola Tesla		Design of the modern alternating current electricity supply system	A Serbian-American inventor, electrical engineer, mechanical engineer, physicist and futurist. Tesla worked on real-life projects like the radio, X-ray machines and induction motors.	Y5/6 Science: Electricity
Year 5/6	Thomas Edison		Primarily known for inventing the light bulb,	Edison has also invented a number of other things like the motion picture camera, stock ticker, battery for the electric car, a mechanical vote recorder and the phonograph. He was also among the first ones to practice mass production for his inventions, manufacturing on a large scale. He has around 1093 US patents on his name and many more outside the US. He was an excellent engineer.	Y5/6 Science: Light
Year 5/6	Alan Emtage		Developed the first search engine in 1990	A computer engineer. His design of the first search engine led to the rise of computer technology. Now we can’t think of going a day without Google, can we?	KS2 Computing: Search Engines

Year 5/6	Henry Ford		Mass production of the motor car	Known by the name of the Ford Motor Company, Henry Ford's first invention was a Quadricycle – his first self-propelled vehicle. Later in 1901, he led the foundation of Ford Motor, revolutionizing mass production system which further led to making an affordable car. Without his contribution, having a vehicle of your own would have been a dream for a majority of people.	Y5/6 Geography: North America Y5/6 DT: Pulleys or Gears
Year 5/6	Leonardo da Vinci		Design of flying objects	Though recognised popularly as an artist, Leonardo da Vinci had a great interest in science and mathematics. His designs of flying objects such as hang gliders and a sketch similar to the present-day helicopter were used widely by scientists from his next generation. The Norwegian highway department also built a bridge in 2001 that was based on one of the designs by da Vinci.	Y5/6 Science: Forces
Year 5/6	Wright Brothers		Building the first successful flying machine	Wright Brothers are famous worldwide for building the world's first successful flying machine. They were two American engineers, inventors and aviators, who made an excellent contribution to the airplane industry.	Year 5/6 Science: Forces