



Brilliant Beginning: Become a pizza topping inventor and share your ideas with your classmates. Sparkling Start: Create displays for the classroom – windows painted with light bulbs to create an inventions timeline		Does the past shape our lives today?		Fabulous Finish: Create a technology exhibition to share with parents and the school.		
Big Ideas	As an historian: Learn about how developments in the 20 th century technology can make life in this century easier. <ul style="list-style-type: none">Regularly address and sometimes devise historically valid questions about change, cause, similarity and difference and significance by learning about the role of cinema in 20th century entertainment.Continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study by learning about how and why football changed across the 20th century in Britain and throughout the world.Note connections, contrasts and trends over time and develop the appropriate use of historical terms by learning about how some young people spent their leisure time in the 1960’s.Regularly address and sometimes devise historically valid questions about change, cause, similarity and difference and significance by learning about why the British holiday industry boomed from the 1930s onwards.Understand how our knowledge of the past is constructed from a range of sources and that different versions of the past events may exist, giving some reasons for this by learning about how television became a popular leisure activity.Construct informed responses that involve thoughtful selection and organisation or relevant historical information by learning about the impact of 20th century technologies on leisure and entertainment in the 21st century. As a designer: Create an Automata animal and learn about controlling movement with a cam mechanism - Linked to our class novel The Invention of Hugo Cabret. <ul style="list-style-type: none">Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose, aimed at particular individuals or groups in the context of researching animals that will be used in their mechanical models.Understand and use mechanical systems in their products in the context of understanding how cams can be used to make a model move.Understand and use mechanical systems in their products in the context of understanding how changing the shape of the cam changes the movement of the follower.Select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic quantities in the context of selecting materials to make a simple cam mechanism.Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose, aimed at individuals or groups in the context of developing design criteria for the Automata Animals.Select from and use a wider range of tools and equipment to perform practical tasks accurately in the context of using tools and equipment to perform the job of cutting, joining and finishing wood to make a frame.Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in the context of evaluating the product design.Understand and use mechanical systems in their products in the context of using a cam mechanism to make a model of an animal move.			As a scientist: Learn about famous scientists and inventors: <ul style="list-style-type: none">Find out about the work of naturalists and animal behaviourists in the context of the life and work of David AttenboroughIdentify scientific evidence that has been used to support or refute ideas or arguments in the context of how CSI technicians use evidence to solve crimesUse knowledge of solids, liquids and gases to decide how mixtures might be separated in the context of using chromatography to solve a ‘crime’.Describe how scientific ideas have changed over time in the context of Margaret Hamilton’s development of the software for the Apollo Moon missionsPlan different types of scientific enquire to answer questions in the context of checking the accuracy of the proportions described in da Vinci’s Vitruvian Man.Use test results to make predictions in the context of making predictions about height and length based on their results about the proportions of the human body.Describe the life process of reproduction in some plants and animals in the context of Eva Crane’s research into the life cycle of bees.Identify scientific evidence that has been used to support or refute ideas in the context of the theories surrounding the alignment of the stones at Stonehenge. As a Geographer Compare maps of the same place and learn about the way that places have changed over time. <ul style="list-style-type: none">Locate the world’s countries using maps to focus on Europe (including the location of Russia) and North and South America by using an atlas.Name and locate cities of the UK and their identifying human and physical characteristics by using an atlas.Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied by using the index and co-ordinates.Use symbols and a key (including the use of Ordnance Survey maps) to build knowledge of the United Kingdom and the wider world by identifying landmarks shown on an Ordnance Survey map.Use the eight points of a compass to build knowledge of the United Kingdom and the wider world by describing routes of a map.Use four and six-figure grid references to build their knowledge of the United Kingdom and the wider world by finding features on a map.Use the eight points of a compass, four and six-figure grid references symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the Unit Kingdom and wider world by planning a journey. Name and locate countries and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics and land-use patterns and understand how some of these aspects have changed over time by comparing maps and photographs of places. As a writer: <ul style="list-style-type: none">Research inventors of the past and write fact files. As a reader: <ul style="list-style-type: none">Use the Internet and school library to research inventors of the past.Guided reading of extracts from The Invention of Hugo Cabret As a communicator: <ul style="list-style-type: none">Discover the explosive history of Alfred Nobel: inventor of dynamite and discuss why Nobel and his work were considered to be controversial by many.		
	Further opportunities	Reading:	Whole Class Reader: The Invention of Hugo Cabret by Brian Selznick			
		Writing:	Research Motown music – a popular genre of music in the 1960s Britain. Choose one Motown artist and write a biography of this person. Interview someone who has a memory of using technology from the last century and write an article for a technology newspaper. Creating a poster to save endangered animals Design your dream island			
		Communication:	Which of the scientists and inventors do you think achieved the most?			
		Maths:	Use sequences and patterns to work out the movement of different shaped cams			
Curriculum Drivers	Through realising possibilities we will:		In our spiritual and moral development we will:		Through enquiry we will:	
	Can we be inspired by past inventors to want to change our future?		Are all inventions good for all? Or can some inventions lead to controversy and have a negative impact on the natural world?		How do things work?	
Secrets of success: <i>Personal Development Essentials</i>	Understanding others: <ul style="list-style-type: none">I am keen to seek the opinions of others.I ask ‘what can I give?’ to a situation rather than ‘what can I take?’I change my behaviour to suit the situation.I know that my work or ideas need to have value to other people to be useful.		Don’t give up: <ul style="list-style-type: none">I have lots of ideas.I am prepared to be wrong.I know which ideas are useful and have value.I act on my ideas.I ask lots of questions.		Try new things: <ul style="list-style-type: none">I enjoy new things and take opportunities wherever possible.I have found my Energy Zone – Things I love doing.I get involved in clubs or groups.I met up with others who share my interests in a safe environment.I know what I am good at, but know there are lots of other things in the world to try out.	
Imagine: <ul style="list-style-type: none">I think of new ways to do things if my first idea doesn’t work outI get upset when I fail, but find ways to bounce back.I stick at things even if they are tough.I look out for luck and I think I am lucky.						