Linton Primary School
New Whole School Curriculum DESIGN and TECHNOLOGY

KS1

		Autumn Term	Spring Term	Summer Term
1		## Mind Over Matter Looking at overcoming adversity, developing a 'Growth Mindset'. *What provides individuals with the motivation and determination to succeed?*	## Fight for Survival Investigating settlements, communities and food chains. *What are the characteristics of success and failure?*	## Incredible Journeys Taking a look at habitats, migration and nomadic lifestyles. *What drives them on?*
	KS1	• Know how to use ICT for various different purposes. • Know how to use technology safely and respectfully. • Create, store, manipulate and retrieve data in the form of research and recording own works. • Know how to create and store data.	• Know how to keep themselves and others safe using technology. • Use a computer to record results using tables, charts and pictures / pictograms. • Know uses of technology beyond school and where to find published information using websites, newspapers and local media. • Know how to create and de-bug simple programmes.	• Know how to use the internet safely to research information. • Research safely and independently using the internet. • Explore creative imagery using digital technology. • Use the internet to find images for use in own work.
2		## Seasons of Change Charting changes in the environment and over time. Exploring how to cope with change. *How can we use change to our advantage?*	## Home Grown Influential individuals from our region who have changed our lives locally, nationally and globally. *What are the effects of innovation?*	## Hidden World Using charts, maps and information to establish areas that remain enigmatic. *What lies in wait - is still to come?*
	KS1	• Technology used to record patterns in seasons, as a form of communicating information and creating images. • Create seasonal pictures using computers. • Investigate using time-lapse and stop motion animation. • Use different tools to create own digital images to incorporate into own work.	• Explore using digital media to create and animate stories in words and pictures. • Use control and programming. • Use floor turtle / bee-bots to programme a journey. • Give precise and unambiguous instructions. • Create imagery using paint programmes and publish own work. • Compose digital music to enhance presentation of own work. • Understand algorithms and these are implemented on digital devices.	• Know how to use technology purposefully to create. • Consider how to record digitally to enhance presentation of own work. • Devise a game using appropriate software. • Create an advert or trailer for game, to include digital sound recording. • Know how to use technology to organise and manipulate digital content.

		Unknown Universe	Heroes and Villains	The Greatest Gift
3		Space exploration, breakthroughs and new discoveries. *How are we changing the world?*	Taking a closer look at making and breaking the rules. *Who's got talent and influence?*	Discussing and debating the impact of talent. *What impact will you have on the world?*
KS1		• Know how to use ICT for various different purposes. • Know how to use technology safely and respectfully. • Create, store, manipulate and retrieve data in the form of research and recording own works. • Know how to create and store data.	• Know how to keep themselves and others safe using technology. • Use a computer to record results using tables, charts and pictures / pictograms. • Know uses of technology beyond school and where to find published information using websites, newspapers and local media. • Know how to create and de-bug simple programmes.	• Know how to use the internet safely to research information. • Research safely and independently using the internet. • Explore creative imagery using digital technology. • Use the internet to find images for use in own work.
4		Secrets of the Deep	The Weird and the Wonderful	Awesome Explorers
		Examining innovation underground and underwater. *What will the impact of new discoveries be?*	Looking at civilisations and discoveries that have surprised, astounded and amazed. *What is the value of having an open mind?*	Considering who we remember and why. Delving into methods of recording. *What are the common characteristics of adventure?*
KS1		• Technology used to record patterns, as a form of communicating information and creating images. • Create seasonal pictures using computers. • Investigate using time-lapse and stop motion animation. • Use different tools to create own digital images to incorporate into own work.	• Use technology to plan, design and record ideas. • Know how to use technology purposefully to create. • Consider how to record digitally to enhance presentation of own work. • Devise a game using appropriate software. • Create an advert or trailer for game, to include digital sound recording. Know how to use technology to organise and manipulate digital content.	• Create digital maps. • Use control and programming. • Use floor turtle / bee-bots to programme a journey. • Give precise and unambiguous instructions. • Create imagery using paint programmes and publish own work. • Compose digital music to enhance presentation of own work. • Understand algorithms and these are implemented on digital devices.

KS2

	Autumn Term	Spring Term	Summer Term
1	## Mind Over Matter Looking at overcoming adversity, developing a 'Growth Mindset'. *What provides individuals with the motivation and determination to succeed?*	## Fight for Survival Investigating settlements, communities and food chains. *What are the characteristics of success and failure?*	## Incredible Journeys Taking a look at habitats, migration and nomadic lifestyles. *What drives them on?*
Lower KS2 **Upper KS2**	IT & DL • Use technology safely, respectfully and responsibly. • Recognise acceptable / unacceptable behaviour when using technology and the internet. • Creating & storing suitable passwords. • Safe reporting. • Using sequence, selection and repetition in programmes. • Use technologies to input, store, retrieve and present information. • Develop word processing skills to present topic work. • Locate and respond appropriately to the terms and conditions on websites. • Identify unsuitable posts and use of technologies. • Identify inappropriate and unacceptable behaviour when analysing resources. • Continue to develop skills in identifying risks involved with contact and content and own conduct whilst online. • Independently select the most appropriate ICT tools for intended purpose and audience. • Format and edit work to improve clarity and purpose using a range of tools.	DL & CS • Use logical reasoning to explain how some simple algorithms work and detect and correct errors in algorithms and programs. • Explore coding through 'Scratch'. • Understand computer networks including the internet; how they can provide multiple services, such as the www; and the opportunities they offer for communication and collaboration. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating content. • Use repetition, selection and variables in programs. • Explore the effects of changing variables in models and simulations in order to solve a problem. • Use strategies to verify the accuracy and reliability of information. • Identify and respect restrictions on usage. • Understand when and where the internet can be used as a research tool. • Understand how search engines work and know that there are different search engines.	IT, DL & CS • Design, write and de-bug programmes that accomplish specific goals. • Control or simulate physical systems. (Ozobots) • Solve problems by decomposing them into smaller parts. • Creating Blogs. • Develop simple spreadsheet models to investigate a real life problem. • Know that programs can be represented in different formats including written and diagrammatic. • Understand the need for precision when creating sequences to ensure reliability. • Using, understanding and designing spreadsheets. • Understand tools used to communicate effectively through blogging. • Understand the conditions of use for blogging.
2	## Seasons of Change Charting changes in the environment and over time. Exploring how to cope with change. *How can we use change to our advantage?*	## Home Grown Influential individuals from our region who have changed our lives locally, nationally and globally. *What are the effects of innovation?*	## Hidden World Using charts, maps and information to establish areas that remain enigmatic. *What lies in wait - is still to come?*
Lower KS2 **Upper KS2**	IT • Use and combine a variety of software to accomplish given goals. • Collect and present information. • Collect and present data. • Recognise and use key layout and design features, e.g. text boxes, columns and borders. • Insert and edit simple tables. • Analyse and evaluate information. • Use a range of devices to capture still and moving images. • Create printing blocks by simplifying an initial sketchbook idea. • Create prints using a relief or impressed method. • Create prints with three colour overlays. • Work into prints with a range of colours and media.	DL • Understand the risks posed by the internet relating to contact, e.g. bullying, grooming etc. • Know how to report safety concerns. • Use a range of digital tools to communicate, e.g. contributing to chats, discussions, forums, blogs or texts, making purposeful contributions / response to an others' question or comment. • Investigate webcams and video conferencing beyond school. • Use email as a form of communication. • Understand that electronic communication can be malicious or inappropriate. • Know how to report suspicions, e.g. through school or CEOP. • Understand how inappropriate conduct can put them at risk. • Use appropriate communication tools to collaborate and communicate with others beyond school. • Use online publishing to reach a global audience. • Create individual and group emails.	CS • Write programs that achieve specific goals. • Know a range of input and output devices and how they can be used. • Debug programs that accomplish specific goals through self and peer assessment. • Understand how computer simulations can represent real or imaginary situations and how these can help the wider world. • Understand how changes can be made quickly and easily in comparison with real life situations. • Use procedures in programs. • Design, test and refine programs. • Use programming software to create simulations. • Understand that there are often different ways to solve the same problem or task. • Understand that programming software can create simple and complex simulations and use this to create.

3	## Unknown Universe Space exploration, breakthroughs and new discoveries. *How are we changing the world?*	## Heroes and Villains Taking a closer look at making and breaking the rules. *Who's got talent and influence?*	## The Greatest Gift Discussing and debating the impact of talent. *What impact will you have on the world?*
Lower KS2 **Upper KS2**	IT & DL • Use technology safely, respectfully and responsibly. • Recognise acceptable / unacceptable behaviour when using technology and the internet. • Creating & storing suitable passwords. • Safe reporting. • Using sequence, selection and repetition in programmes. • Use technologies to input, store, retrieve and present information. • Develop word processing skills to present topic work. • Locate and respond appropriately to the terms and conditions on websites. • Identify unsuitable posts and use of technologies. • Identify inappropriate and unacceptable behaviour when analysing resources. • Continue to develop skills in identifying risks involved with contact and content and own conduct whilst online. • Independently select the most appropriate ICT tools for intended purpose and audience. • Format and edit work to improve clarity and purpose using a range of tools.	DL & CS • Use logical reasoning to explain how some simple algorithms work and detect and correct errors in algorithms and programs. • Explore coding through 'Scratch'. • Understand computer networks including the internet; how they can provide multiple services, such as the www; and the opportunities they offer for communication and collaboration. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating content. • Use repetition, selection and variables in programs. • Explore the effects of changing variables in models and simulations in order to solve a problem. • Use strategies to verify the accuracy and reliability of information. • Identify and respect restrictions on usage. • Understand when and where the internet can be used as a research tool. • Understand how search engines work and know that there are different search engines.	IT, DL & CS • Design, write and de-bug programmes that accomplish specific goals. • Control or simulate physical systems. (Ozobots) • Solve problems by decomposing them into smaller parts. • Creating Blogs. • Develop simple spreadsheet models to investigate a real life problem. • Know that programs can be represented in different formats including written and diagrammatic. • Understand the need for precision when creating sequences to ensure reliability. • Using, understanding and designing spreadsheets. • Understand tools used to communicate effectively through blogging. • Understand the conditions of use for blogging.
4	## Secrets of the Deep Examining innovation underground and underwater. *What will the impact of new discoveries be?*	## The Weird and the Wonderful Looking at civilisations and discoveries that have surprised astounded and amazed. *What is the value of having an open mind?*	## Awesome Explorers Considering who we remember and why. Delving into methods of recording. *What are the common characteristics of adventure?*
Lower KS2 **Upper KS2**	IT • Use and combine a variety of software to accomplish given goals. • Collect and present information. • Collect and present data. • Recognise and use key layout and design features, e.g. text boxes, columns and borders. • Insert and edit simple tables. • Analyse and evaluate information. • Use a range of devices to capture still and moving images. • Create printing blocks by simplifying an initial sketchbook idea. • Create prints using a relief or impressed method. • Create prints with three colour overlays. • Work into prints with a range of colours and media.	DL • Understand the risks posed by the internet relating to contact, e.g. bullying, grooming etc. • Know how to report safety concerns. • Use a range of digital tools to communicate, e.g. contributing to chats, discussions, forums, blogs or texts, making purposeful contributions / response to an others' question or comment. • Investigate webcams and video conferencing beyond school. • Use email as a form of communication. • Understand that electronic communication can be malicious or inappropriate. • Know how to report suspicions, e.g. through school or CEOP. • Understand how inappropriate conduct can put them at risk. • Use appropriate communication tools to collaborate and communicate with others beyond school. • Use online publishing to reach a global audience. • Create individual and group emails.	CS • Write programs that achieve specific goals. • Know a range of input and output devices and how they can be used. • Debug programs that accomplish specific goals through self and peer assessment. • Understand how computer simulations can represent real or imaginary situations and how these can help the wider world. • Understand how changes can be made quickly and easily in comparison with real life situations. • Use procedures in programs. • Design, test and refine programs. • Use programming software to create simulations. • Understand that there are often different ways to solve the same problem or task. • Understand that programming software can create simple and complex simulations and use this to create.