Mellers Curriculum UKS2

	Which skills are the children learning?	What core knowledge will the children acquire?	Year 5 Learning Ladders	Year 6 Learning Ladders
Science	1. to investigate and explain how scientific and technological developments affect the physical and living worlds 2. to explore and explain practical ways in which science can contribute to a more sustainable future 3. to apply knowledge and understanding to describe and explain the structure and function of key human body systems including reproduction 4. to investigate the structure, function, life cycle and growth of flowering plants and how these grow and are used around the world 5. to investigate, identify and explain the benefits of micro-organisms and the harm they can cause 6. to investigate and explain how plants and animals are interdependent and are diverse and adapted to their environment as a result of evolution 7. to explore, explain and use reversible and non-reversible changes that occur in the world around them and how changes can be used to create new and useful materials 8. to explore and explain how time measurement relates to day and night and the Earth's place in the solar system 9. to investigate the properties and behaviour of light and sound in order to describe and explain familiar effects 10. to investigate and explain the effect of changes in electrical circuits 11. to investigate combinations of forces	to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -to take measurements, using a range of scientific equipment, with increasing accuracy and precision -to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs -to use test results to make predictions to set up further comparative and fair tests -to use simple models to describe scientific ideas -to report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations -to identify scientific evidence that has been used to support or refute ideas or arguments. -to explain the differences in the life cycles of a mammal, an amphibian, an insect and a bird -to describe the life process of reproduction in some plants and animals. to describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals -to give reasons for classifying plants and animals based on specific characteristics. -to describe the changes as humans develop from birth to old age. to identify and name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood -to recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function -to describe the ways in which nutrients and water are transported within animals, including humans. - to recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago -to recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	**Materials** I can compare and group everyday materials on the basis of their properties e.g. hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets I can recognise that some materials will dissolve in liquid to form a solution I can describe how to recover a substance from a solution I can use my knowledge of solids, liquids and gases to decide how mixtures might be separated I can use evidence from my tests to decide how to use everyday materials effectively I can demonstrate that dissolving, mixing and changing are reversible processes I can explain that certain changes are irreversible and new materials can be formed e.g. burning **Living Thing and their Habitats** I can describe the similarities and differences between the life cycles of different plants I can describe the similarities and differences between the life cycles of different animals I can identify the processes of sexual reproduction in animals I can identify the processes of sexual reproduction in plants I can describe asexual reproduction in plants I can compare the life cycles of plants in my local environment to different habitats around the world (such as in the rainforest or in the Arctic) **Earth and Space** I can name all of the planets I can describe the Sun, Earth and Moon as approximately spherical bodies I can describe the movement of the Earth, and other planets, relative to the Sun in the solar system I can describe the movement of the Moon relative to the Earth I can identify and describe that a moon orbits a planet I can explain day and night, using the Earth's rotation and the movement of the Sun across the sky	**Living Thing and their Habitats** I can explain why living things can be classified into different groups I can explain why living things can be in one group and not another I can describe the main features of particular groups such as vertebrates and invertebrates I can use my research of animals unknown to me in order to classify them **Light** I can use examples to show that light appears to travel in straight lines I can demonstrate that light travels in straight lines to explain how objects are seen I can discuss how objects are seen using scientific vocabulary e.g. light source and reflection I can use my knowledge of the way light travels to describe how shadows are formed **Evolution and Inheritance** I can recognise that living things have changed over time I can describe how fossils provide information about living things that inhabited the Earth millions of years ago I can use evidence from my observations to describe how offspring vary and are not identical to their parents I can describe how variations occur between individuals of the same species I can research and identify how animals and plants are adapted to suit their environment in different ways I can describe how adaptation can lead to evolution **Electricity** I can construct simple series circuit diagram using recognised symbols I can investigate the impact the number and voltage of cells has on the brightness of a lamp I can investigate the impact the number and voltage of cells has on the volume of a buzzer

		-to identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. -to compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets -to understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution -to use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating -to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic -to demonstrate that dissolving, mixing and changes of state are reversible changes -to explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. to describe the movement of the Earth, and other planets, relative to the Sun in the solar system -to describe the movement of the Moon relative to the Earth -to describe the Sun, Earth and Moon as approximately spherical bodies -to use the idea of the Earth's rotation to explain day and night. to understand that light appears to travel in straight lines -to use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye -to explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes -to use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes. -to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object -to identify the effects of air resistance, water resistance and friction, that act between moving surfaces -to understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.	**Animals Including Humans** I can describe how humans grow and develop as they age I can identify the changes to male and female bodies as they reach puberty I can research and use evidence to describe the different gestation periods of various animals I can find out and record how the length and mass of a baby changes over time **Working Scientifically** I can make predictions using my test results to set-up comparative and fair tests I can use scientific diagrams, labels, classification keys, tables, scatter graphs, bar and line graphs to record my data and results I can use a range of scientific equipment to take measures and repeated readings I can plan different types of scientific enquiries to answer questions including recognising and controlling variables I can recognise which equipment to use for which investigation	I can investigate and describe the variations in how components function e.g. the brightness of bulbs, loudness of buzzers and on/off position of switches **Animals Including Humans** I can identify and name the main parts of the human circulatory system I can describe the functions of the heart, blood vessels and blood I can describe how water and nutrients are transported around the body I can describe how blood is pumped around the body I can recognise the impact of an unhealthy diet I can recognise the impact of drugs, alcohol and smoking on the human body I can describe how to keep my body healthy **Working Scientifically** I can recognise scientific evidence that can be used to support or refute ideas and arguments I can report and present my findings in oral and written forms such as displays and other presentations (e.g. explaining and concluding my findings, and explaining the degree of trust in my results) I can ask questions about the scientific topics I study, and select and plan the most appropriate way to answer these questions I can use appropriate scientific language to explain, evaluate and communicate my methods and findings

		-to associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit -to compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches -to use recognised symbols when representing a simple circuit in a diagram.		
ART	1. To investigate, explore and record information, to appreciate aesthetic qualities and generate imaginative ideas 2. To design and create images and artefacts by selecting, developing and refining techniques and using a range of materials and media ideas	-to use a range of techniques to record their observations in sketchbooks, journals and other media as a basis for exploring their ideas -to use a range of techniques and media, including painting - to increase their proficiency in the handling of different materials - to analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work -to find out about the history of art, craft, design and architecture, including periods, styles and major movements from ancient times up to the present day.	**Creating and Exploring** - I can use research to develop my own personal ideas - I can review and revisit my sketchbook to assess how I will develop my ideas - I can independently experiment with techniques and materials I know to achieve different effects **Evaluating and Understanding** - I can research the cultural and historical context of artists', architects' and designers' pieces - I can compare my work to great artists, and discuss how to improve my work to a high standard using their techniques.	**Creating and Exploring** - I can show originality in my designs - I can plan how to achieve a desired effect using my sketch book ideas alongside my knowledge of materials and processes - I can independently select the materials and tools I need to use for my artwork **Evaluating and Understanding** - I can critically evaluate my work, and other artists', which considers the context and intentions of the piece. - I can discuss how you can see the impact of the time-period alongside historical and cultural contexts of great artist's work.
MUSIC	1.To listen carefully, developing and demonstrating musical understanding and increasing aural memory 2. To perform by ear and use notations and ICT to support creative work 3. To compose their own instrumental and vocal music and perform their own and others' compositions in ways that reflect their meaning and intentions 4. To describe and compare different kinds of music using appropriate musical vocabulary	-to play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression -to improvise and compose music for a range of purposes using the inter-related dimensions of music -to listen with attention to detail and recall sounds with increasing aural memory -to use and understand staff and other musical notations -to appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians -to develop an understanding of the history of music.	**Improvising and Composing** - I can improvise and compose including using simple chord structures - I can improvise, compose and refine with an awareness of context and purpose - I can represent sounds with detailed symbols **Listening and Understanding** - I can listen to music with a variety of textures, noticing different types of harmony - I can compare and contrast different music, with an awareness of the music's context, purpose and the composer's intent - I can identify some of the structural and expressive aspects of music heard (major or minor chords) - I can identify different ensemble combinations, instruments heard and their role within the ensemble	**Creating and Exploring** - I can improvise and compose including the use of scales, complex rhythm patterns and chord structures. - Within a group, I can create and play with an awareness of balance - I can represent sounds with detailed symbols **Listening and Understanding** - I can listen to music with a range of different metres - I can identify some of the structural and expressive aspects of music heard - I can give opinions, using appropriate and extended vocabulary to justify these **Performance Instrumental** - I can play simple parts with accuracy and awareness of pitch, metre and balance - I can accurately maintain an independent part within a group, using controlled playing techniques in a variety of metres.

			- I can recognise how certain types of music have developed over time **Performance: Instrumental** - I can play simple parts with accuracy - I can accurately maintain an independent part within a group, using controlled playing techniques **Performance: Vocal** - I can sing simple part songs with control and an awareness of phrasing	**Performance: Vocal** - I can confidently sing part songs with control, expression and an awareness of phrasing.
Languages	1. to foster curiosity and deepen understanding about the world 2. to communicate for practical purposes, responding to spoken and written language from authentic sources 3. to develop confidence in speaking fluently and spontaneously in another language 4. to discover and develop an appreciation of a range of writing from other languages studied	-to listen attentively to spoken language and show understanding by joining in and responding -to explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words -to engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help -to speak in sentences, using familiar vocabulary, phrases and basic language structures -to develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases -to present ideas and information orally to a range of audiences -to read carefully and show understanding of words, phrases and simple writing -to appreciate stories, songs, poems and rhymes in the language -to broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary -to write phrases from memory, and adapt these to create new sentences, to express ideas clearly -to describe people, places, things and actions orally and in writing -to understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English	**Listening** - I can understand and use negative statements - I can recognise typical conventions of word order and compare with English - I can understand simple opinions - I can join in a short conversation - I can pick out some of the main points from short spoken passages **Reading** - I can understand and use negative statements - I can recognise typical conventions of word order and compare with English - I can read and understand some of the main points from a short text **Speaking** - I can apply knowledge of language rules and conventions when building short sentences - I can understand and use negative statements - I can manipulate language by changing a single part of a sentence - I can develop accuracy in pronunciation and intonation - I can make a short presentation using a model - I can express simple opinions - I can communicate by asking a wider range of questions **Writing** - I can use 1st, 2nd and 3rd person singular forms of familiar verbs	**Listening** - I can notice and manipulate agreements. - I can listen to and understand the main points and some detail from a short, spoken passage. **Reading** - I can apply knowledge of word order and sentence construction to support understanding of written texts. - I can notice and manipulate agreements. - I can match sounds to sentences and paragraphs. - I can identify different types of text and read short, authentic texts for enjoyment or information. - I can read and understand the main points and some detail from a short, written passage. - I can read aloud with confidence, enjoyment and expression, in chorus or individually. **Speaking** - I can use knowledge of words, text and structure to make meaning, using simple language. - I can notice and manipulate agreements. - I can recognise the importance and significance of intonation. - I can give a clear presentation in a clear audible voice. - I can join in a short conversation.

			- I can apply knowledge of language rules and conventions when building short sentences - I can understand and use negative statements - I can manipulate language by changing a single element in a sentence - I can join simple sentences (e.g. using et/mais) - I can remember simple structures and apply in new contexts - I can write words, phrases and a few sentences using a model - I can understand how a simple sentence is written	**Writing** - I can apply knowledge of words and text conventions to build meaningful sentences and short texts - I can use knowledge of words, text and structure to make meaning, using simple language - I can notice and manipulate agreements - I know how to use a bilingual dictionary to check my spelling and the gender of my words - I can develop a short text using a model - I can write several sentences from memory
DANCE / DRAMA	1. To draw upon different dance styles to compose dances and communicate meaning 2. To develop and refine their movement repertoire and show understanding of artistic meanings and intentions when they dance 3. To create roles and devise performances that sustain characters, plots and intentions 4. How facial expressions, body language, movement and space can communicate different emotions and characteristics of behaviour 5. To select and experiment with a broad range of drama conventions and forms for different purposes and effects	-to perform dances using a range of movement patterns		

Mellers Curriculum

	Which skills are the children learning?	What core knowledge will the children acquire?	Year 5 Learning Ladders	Year 6 Learning Ladders
GEOGRAPHY	1. to know how societies have been organised and governed in different ways and at different times, including in the present 2. to distinguish between fact and opinion and make choices about sources of online information to find out about communities, locations, environments and events 3. to recognise a range of geographical processes that cause change in the physical and human world in different places	**Location knowledge** -to locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities -to name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time -to identify the position and significance of latitude, longitude, Equator,	**Geographical Skills and Fieldwork** - I can communicate my findings using the appropriate vocabulary - I can suggest an appropriate sequence of events and use geographical skills to conduct an enquiry - I can begin to investigate answers and use the correct vocabulary to share findings **Human and Physical Geography** - I can understand how people can both improve and damage the environment	**Geographical Skills and Fieldwork** - I can present findings both graphically and in writing to reach a conclusion and evaluate the information - I can suggest my own geographical enquiry and demonstrate the appropriate skills to conduct the enquiry - I can explain my own views using examples and evidence **Human and Physical Geography**

	4. to understand how human patterns are influenced by both human and physical processes 5. to find out about the factors that affect weather and climate 6. to investigate ways in which environments can be managed sustainably and why this is important now and in the future	Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night) **Place knowledge** -to understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America **Human and physical geography** -to describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water **Geographical skills and fieldwork** -to use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied -to 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 United Kingdom and the wider world -to use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.	- I can describe and begin to explain geographical patterns and a range of physical and human processes. - I can recognise that these interact to affect the lives and activities of people living there. **Locational Knowledge** - I know more about the features of a variety of places around the world from local to global. **Place Knowledge** - I can understand more about the links between different places and that some places depend on each other.	- I can describe ways in which physical and human processes operating at different scales create geographical patterns and lead to changes in places. - I can describe and explain a range of physical and human processes and recognise that these processes interact to produce distinctive characteristics of places. **Locational Knowledge** - I know more about the features of a variety of places around the world from local to global and in different parts of the world **Place Knowledge** - I can understand about the links and relationships between different places and what makes places dependant on each other.
HISTORY	1. to know the characteristic features of, and changes within, two key periods of history that were significant to the locality and the UK 2.to recognise the effects of economic, technological and scientific developments on the UK and the wider world over time 3. to understand the broad chronology of major events in the UK, and some key events in the wider world, from ancient civilisations to the present day, and to locate within this the periods, events and changes they have studied	**-to recognise changes in Britain from the Stone Age to the Iron Age, this could include:** late Neolithic hunter-gatherers and early farmers, e.g. Skara Brae, Bronze Age religion, technology and travel, e.g. Stonehenge, Iron Age hill forts: tribal kingdoms, farming, art and culture **-to understand the impact of the Roman Empire on Britain, this could include:** Julius Caesar's attempted invasion in 55-54 BC, the Roman Empire by AD 42 and the power of its army successful invasion by Claudius and conquest, including Hadrian's Wall, British resistance, e.g. Boudica, "Romanisation" of Britain: sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity -**to understand Britain's settlement by Anglo-Saxons and Scots, this could include:** Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire, Scots invasions from Ireland to north	**Chronological Awareness** - I can describe significant features from time periods and know how Britain has influenced and been influenced by the wider world. **Knowledge and Understanding** - I can understand why some civilisations have been successful and why others have not. **Organise, Evaluate and Communicate Information** - I can begin to make use of dates and terms to structure my work. - I can evaluate sources and identify those that are useful to the task. **Understanding Historical Concepts** - I can understand historical concepts and use them to make connections, draw contrasts,	**Chronological Awareness** - I can make appropriate use of dates and specialist terms **Knowledge and Understanding** - I can identify features and make links between past societies and periods - I can draw on my depth of factual knowledge and understanding of Britain and the wider world. **Organise, Evaluate and Communicate Information** - I can understand the methods of historical enquiry, including how evidence has been used and discover how and why contrasting arguments and interpretations of the past have been constructed.

		Britain (now Scotland), Anglo-Saxon invasions, settlements and kingdoms: place names and village life, Anglo-Saxon art and culture, Christian conversion, Canterbury, Iona and Lindisfarne -**to know about the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor, this could include:** Viking raids and invasion resistance by Alfred the Great and Athelstan, first king of England, further Viking invasions and Danegeld, Anglo-Saxon laws and justice, Edward the Confessor and his death in 1066 **-to complete a local history study, for example:** a depth study linked to one of the British areas of study listed above a study over time tracing how several aspects of national history are reflected in the locality (this can go beyond1066), a study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality. **-to extend pupils' chronological knowledge beyond 1066 through a study of an aspect or theme in British history, for example:** the changing power of monarchs using case studies such as John, Anne and Victoria, changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century, the legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day, a significant turning point in British history, e.g. the first railways or the Battle of Britain, the achievements of the earliest civilizations **–to complete an overview of where and when the first civilizations appeared and a depth study of one of the following:** Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China, Ancient Greece – a **–to study Greek life and achievements and their influence on the western world** **-to contrast a non-European society with British history** - one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.	analyse trends, and ask questions about the past.	**Understanding Historical Concepts** - I can use historical concepts to create my own structured accounts, including written narratives and analysis
Mellers Curriculum				
	Which skills are the children learning?	**What core knowledge will the children acquire?**	**Year 5 Learning Ladders**	**Year 6 Learning Ladders**

P.E.	1. to perform physical movements and complex series of movements with increasing control, coordination, precision and consistency 2. to create and apply rules and use more complex compositions, tactics and strategies in competitive and cooperative games and other physical activities 3. to develop and perform sequences and compositions using appropriate movements to express ideas and emotions 4. to refine physical skills and techniques, commenting on strengths and weaknesses in their own and others' performance 5. to recognise the benefits of practice and reflection for improving personal and group performance 6. to perform safe self-recue in different water-based situations 7. to use a range of strokes effectively	-to use running, jumping, throwing and catching in isolation and in combination -to play competitive games, modified where appropriate, such as badminton, basketball, cricket, football, hockey, netball, rounders and tennis, and apply basic principles suitable for attacking and defending -to develop flexibility, strength, technique, control and balance, for example through athletics and gymnastics -to perform dances using a range of movement patterns -to take part in outdoor and adventurous activity challenges both individually and within a team -to compare their performances with previous ones and demonstrate improvement to achieve their personal best. - to swim competently, confidently and proficiently over a distance of at least 25 metres	- I can discuss a strategy for my team to follow during a team activity - I can compare my performance with previous achievements and suggest how to improve my personal best. - I can take part in outdoor and adventurous activities both individually and in a team.	- I can compare my performance with previous achievements and demonstrate how to improve my personal best. - I can learn from my team's previous performance in a competitive sport and offer suggestions to improve - I can support other team members.
P.S.H.E. (non-statutory)	1.to understand the particular benefits of different physical activities for promoting health 2.to take responsibility for their physical activity and nutrition in achieving a physically and mentally healthy lifestyle 3.to plan, prepare and cook simple healthy meals 4.to know how to make responsible, informed decisions relating to medicines, alcohol, tobacco and other substances and drugs 5.to understand about the physical changes that take place in the human body as they grow and how these relate to human reproduction 6.to recognise how to manage changing emotions and relationships and how new relationships may develop	**Developing confidence and responsibility and making the most of their abilities** - to talk and write about their opinions, and explain their views, on issues that affect themselves and society - to recognise their worth as individuals by identifying positive things about themselves and their achievements, seeing their mistakes, making amends and setting personal goals -to face new challenges positively by collecting information, looking for help, making responsible choices, and acting - to recognise, as they approach puberty, how people's emotions change at that time and how to deal with their feelings towards themselves, their family and others in a positive way -to know about the range of jobs carried out by people they know, and to understand how they can develop skills to make their own contribution in the future - to look after their money and realise that future wants and needs may be met through saving. **Developing a healthy, safer lifestyle** -to know what makes a healthy lifestyle, including the benefits of exercise and healthy eating, what affects mental health, and how to make informed choices -to recognise that bacteria and viruses can affect health and that following simple, safe routines can reduce their spread -to understand about how the body changes as they approach puberty -to know which commonly available substances and drugs are legal and illegal, their effects and risks - to recognise the different risks in different situations and then decide how to behave responsibly, including sensible road use, and judging what kind of physical contact is acceptable or unacceptable -to recognise that pressure to behave in an unacceptable or risky way can come from a variety of sources, including people they know, and how to ask for help and use basic techniques for resisting pressure to do wrong -to know school rules about health and safety, basic emergency aid procedures and where to get help. **Developing good relationships and respecting the differences between people** -to know that their actions affect themselves and others, to care about other people's feelings and to try to see things from their points of view - to think about the lives of people living in other places and times, and people with different values and customs		

	7.to know that hygiene, physical activity and nutrition needs might change as a result of growth and adolescence 8.to have strategies for understanding, managing and controlling strong feelings and emotions and dealing with negative pressures	- to be aware of different types of relationship, including marriage and those between friends and families, and to develop the skills to be effective in relationships - to realise the nature and consequences of racism, teasing, bullying and aggressive behaviours, and how to respond to them and ask for help -to recognise and challenge stereotypes -to know that differences and similarities between people arise from a number of factors, including cultural, ethnic, racial and religious diversity, gender and disability - to know where individuals, families and groups can get help and support.

Mellers Curriculum

	Which skills are the children learning?	What core knowledge will the children acquire?	Year 5 Learning Ladders	Year 6 Learning Ladders
D.T.	1. to make controllable systems or models, devising and refining sequences of instructions considering users, purposes and needs 2. to consider the implications of familiar designs and products for the environment and different communities	**Design** -to 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 -to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **Make** -to select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately -to select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities **Evaluate** -to investigate and analyse a range of existing products -to evaluate their ideas and products against their own design criteria and consider the views of others to improve their work -to understand how key events and individuals in design and technology have helped shape the world **Technical knowledge** -to apply their understanding of how to strengthen, stiffen and reinforce more complex structures -to understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages -to understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors -to apply their understanding of computing to programme, monitor and control their products. **Food**	**Cooking** - I can create more detailed recipes that someone else could follow and discuss why the recipe is varied and healthy. - I can make recipes that use ingredients appropriate for the season. **Design** - I can design innovative, functional and appealing products aimed at a particular group. - I can present my ideas using annotated sketches, cross-sectional drawings and exploded diagrams. **Evaluate** - I can discuss how innovative a product is and suggest improvements. - I can recognise how inventors have been innovative with their products and the effect of this. - I can critically evaluate my product using the views of others and my own feedback. **Make** - I can continue to accurately use appropriate tools and materials for my products and understand why these are being used. **Technical Knowledge** - I can investigate using an electrical system in my product. - I can create my own electrical system e.g. using switches, bulbs, buzzers and motors.	**Design** - I can use computer-aided design to develop and communicate my ideas. **Evaluate** - I can discuss where a product was made and how much it may have cost to make. - I can hold feedback sessions in order to develop my designs and products. **Make** - I can list the tools and materials I need to create my product and write a step by step guide for making it. **Technical Knowledge** - I can create a simple computer program to program, monitor and control my product. - I can suggest how to amend my computer program to improve my product.

		-to understand and apply the principles of a healthy and varied diet -to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques -to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	- I can recognise the effect of changing part of my electrical system and how this will impact on the use of my product.	
COMPUTING	1. to understand and apply the fundamental principles of computer science 2. to analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems. 3. to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems. 4. to be responsible, competent, confident and creative users of information and communication technology	**Computing** -to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -to use sequence, selection, and repetition in programs; work with variables and various forms of input and output -to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs -to understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration -to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content -to use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour -to select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	**Computer Science** - I can explain how hidden rules guide simulations - I can investigate the effect of changing variables in simulations - I can logically explain why some simple algorithms work - I understand how technology works and how computers process instructions and commands. **Digital Literacy** - I can use, search and enter data into my own databases - I can use technology to present my work using advanced features of software and tools. - I can select, use and combine a variety of software to design and create programs and systems which accomplish a given goal. - I can select, use and combine a variety of software to design and create content which accomplishes a given goal. - I can create websites for a specific purpose and improve these sites **E-Safety** - Within my school environment I can communicate with others via email and electronic communication. - I understand the impact of incorrect data and unreliable sources when reading internet articles. - I can check for validity. - I can recognise that articles I read on the internet may contain bias and irrelevant information. - I understand issues of copyright and how to apply this to my own work.	**Computer Science** - I can develop my understanding of how technology works and how computers process instructions and commands. - I can control an on-screen icon using text-based programming, including writing complex algorithms which involve sensors. - I can detect and correct errors in algorithms and programs. - I can investigate and break down the effect that changing variables has on simulation. - I can use software to model 3D objects and work to a scale. **Digital Literacy** - I can enter data, use simple formulae and use simple formatting in a database I have created. - I can use spreadsheets to create graphs and present data in various ways. - I can evaluate the tools I use and suggest adaptations to enhance my creations. - I can explain why I have chosen certain tools to use for a specific purpose. **E-Safety** - I can respond to emails and attach additional information - I can discuss the advantages and disadvantages of web-based communication tools. - I can discuss the validity and reliability of different viewpoints from web-based sources. - I can acknowledge my sources and create references. - I understand plagiarism and how to avoid this in my writing