 Year 4 Curriculum concepts and milestones

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|  | Autumn | Spring | Summer |
| Concepts and Milestones to cover in Science | Chemistry –  To investigate materials  I can compare and group materials according to whether they are solids, liquids or gases  I can observe some materials change state when heated or cooled and measure the temperature at which this happens  I can identify the part played by evaporation and condensation in the water cycle and link the rate of evaporation to temperature  Physics –  To investigate electrical circuits  I can identify common appliances that run on electricity  I can construct a simple circuit and identify and name its basic parts  I can identify whether or not a lamp will light on a circuit based on if it is complete or not  I can recognise common conductors and insulators | Biology –  To understand evolution and inheritance  I can identify how plants and animals resemble their parents in many features  I can recognise that living things have changed over time and that fossils and other sources of information help us identify living things who lived on the Earth long ago  Physics –  To understand light and seeing  I can recognise that we need light to see and that darkness is the absence of light  I know light is reflected from surfaces  I know light from the sun can be dangerous for my eyes and skin  I can recognise how shadows are formed and find patterns in the way they change  All experiments should also include working scientifically:  To work scientifically  I can ask relevant questions I can set up simple practical enquiries and fair tests I can make accurate measurements I can record my findings using simple language, drawings, labelled diagrams, bar charts and tables | Biology –  To understand evolution and inheritance  I can identify how animals and plants are suited to and adapt to their environment in different ways  To understand plants  I can identify and describe the functions of different parts of flowering plants.  I can explore the requirements of plants for life and growth and how this varies from plant to plant  I can investigate the way in which water is transported within plants  I can explore the role of flowers in the life cycle of a plant |
| Concepts and milestones to cover in Geography | To investigate places  I can ask and answer geographical questions about the physical and human characteristics of a location  I can use fieldwork to observe and record the human and physical features in the local area using a range of methods  I can name and locate countries and cities of the UK and their identifying human and physical characteristics e.g. cities, hills, mountains, rivers, key topographical features and land use patterns; and understand how some of these things have changed over time  To investigate patterns  I can describe how the locality of the school has changed over time  To communicate geographically  I can describe key physical features  Rivers, mountains, volcanoes, earthquakes and water cycle  I can describe key human features  Settlements and land use  I can use the eight points of a compass to communicate knowledge of the UK | To investigate places  I can ask and answer geographical questions about the physical and human characteristics of a location  I can use maps, atlases, globes and digital computer mapping to locate countries and describe features  To investigate patterns  I can name and locate the equator, northern and southern hemisphere, tropics of cancer and Capricorn, arctic and Antarctic circle and date and time zones as well as describe some physical characteristics of these geographical areas  I can describe geographical similarities and differences between countries  To communicate geographically  I can describe key physical features  Rivers, mountains, volcanoes, earthquakes and water cycle  I can describe key human features  Settlements and land use  I can use the eight points of a compass to communicate knowledge of the UK and the wider world | To investigate places  I can ask and answer geographical questions about the physical and human characteristics of a location  I can use maps, atlases, globes and digital computer mapping to locate countries and describe features  To investigate patterns  I can name and locate the equator, northern and southern hemisphere, tropics of cancer and Capricorn, arctic and Antarctic circle and date and time zones as well as describe some physical characteristics of these geographical areas  I can describe geographical similarities and differences between countries  To communicate geographically  I can describe key physical features  Rivers, mountains, volcanoes, earthquakes and water cycle  I can describe key human features  Settlements and land use  I can use the eight points of a compass to communicate knowledge of the UK and the wider world |
| Concepts and milestones to cover in History | To investigate and interpret the past  I can use evidence to ask questions and find answers to those questions about the past  I can suggest suitable sources of evidence for historical enquiries  To build an overview of world history  I can describe changes that have happened near the school throughout history  I can describe changes that have happened in Britain from ancient times  To communicate historically  I can use appropriate historical vocabulary including dates, time periods, era, change and chronology  I can use English, Maths and ICT skills to communicate information about the past | To investigate and interpret the past  I can use evidence to ask questions and find answers to those questions about the past  I can suggest suitable sources of evidence for historical enquiries  I can describe different accounts of a historic event and explain why the accounts might differ  To build an overview of world history  I can describe the social, ethnic, cultural or religious diversity of past society  To understand chronology  I can place events, artefacts and historical figures on a timeline using dates  I can understand the concept of change over time  To communicate historically  I can use appropriate historical vocabulary including dates, time periods, era, change and chronology  I can use English, Maths and ICT skills to communicate information about the past | To investigate and interpret the past  I can use evidence to ask questions and find answers to those questions about the past  I can suggest suitable sources of evidence for historical enquiries  I can describe different accounts of a historic event and explain why the accounts might differ  I can suggest causes and consequences of some of the main events in history  To build an overview of world history  I can describe the social, ethnic, cultural or religious diversity of past society  I can describe the characteristic features of the past including ideas, beliefs, attitudes and experiences of men, women and children  To understand chronology  I can place events, artefacts and historical figures on a timeline using dates  I can understand the concept of change over time  To communicate historically  I can use appropriate historical vocabulary including dates, time periods, era, change and chronology  I can use English, Maths and ICT skills to communicate information about the past |
| Concepts and milestones to cover in Computing | To code  I can use specified screen co-ordinates to control movement  To connect  I can use features of applications to communicate messages professionally  To collect  I can devise and construct databases | To code  I can set the appearance of objects and create sequences of changes as well as control the shade of a pen  To connect  I can use features of applications to communicate messages professionally  To collect  I can devise and construct databases  (Please note that there is a separate e- safety curriculum to be followed) | To code  I can create and edit sounds, control when they are heard, their volume, duration and resets  To connect  I can use features of applications to communicate messages professionally  To collect  I can devise and construct databases |
| Concepts and milestones to cover in Art  (developing ideas by responding to ideas and exploring and collecting visual information as well as commenting on art works should happen at all times) | To paint  I can use a number of brush techniques using thick and thin brushes to produce shapes, textures, patterns and lines  I can mix colours effectively  I can use watercolour to produce washes for backgrounds and then add detail  I can experiment with creating mood and colour  To take inspiration from the greats  I can replicate some of the techniques used by notable artists  I can create original pieces that are influenced by studies of others | To draw  I can use different hardness of pencils to show line, tone and texture  I can annotate sketches  I can sketch lightly and use shading to show light and shadow  I can use hatching and cross hatching to show tone and texture  To sculpt  I can create and combine shapes to create recognisable forms  I can include texture that conveys feelings, expression or movement  I can use clay and other mouldable materials  I can add materials to provide interesting detail | To print  I can use layers of two or more colours  I can replicate patterns observed in natural or built environments  I can make printing blocks  I can make precise repeating patterns  To collage  I can select and arrange materials for a striking effect  I can use coiling, overlapping, tessellation, mosaic and montage  To use digital media  I can create images, video and sound recordings and explain why they were created |
| Concepts and milestones to cover in Design  (design, make, evaluate and improve must be followed through each piece of design work) | To master practical skills with food  I can prepare ingredients hygienically using appropriate utensils  I can measure ingredients to the nearest gram accurately  I can follow a recipe  I can assemble or cook ingredients  To take inspiration from design throughout history  I can improve upon existing designs giving reasons for my choice  I can disassemble products to understand how they work | To master practical skills with construction  I can choose suitable techniques to construct products or to repair them  I can strengthen materials using suitable techniques  To master practical skills with materials  I can cut materials accurately and safely by selecting the appropriate tools  I can measure and mark to the nearest mm  I can apply appropriate cutting and shaping techniques  I can select appropriate joining techniques | To master practical skills with textiles  I can understand the need for a seam allowance  I can join textiles with appropriate stitching  I can select the most appropriate techniques to decorate textiles  I can use basic cross stitch and back stitch  I can quilt pad and gather fabric |
| Concepts and milestones to cover in RE | To explore important events in a Christian’s life  I can discuss Christian rites of passage  (Birth/Confirmation/Marriage/funerals) | To explore important events in a Muslim’s life  I can discuss Islamic rites of passage  (birth/marriage/death)  To explore important events in a Hindu’s life  I can discuss Hindu rites of passage  (birth/initiation/marriage/death) | To compare and understand religions  I can explore the rites of passage in Judaism and Sikhism  I can compare the rites of passage across religions |
| Concepts and milestones to cover in PE | To perform gymnastics  I can plan, perform and repeat sequences  I can move in a clear, fluent and expressive manner  I can refine movements in to sequences  I can show changes of direction, speed and level during a performance  I can travel in a variety of ways (including flight and weight transference)  I can show a kinaesthetic sense in order to improve the placement and alignment of body parts (balances)  I can swing and hang from equipment safely (Using hands)  To Play Games  I can throw and catch with control and accuracy  I can strike a ball and field with control  I can choose appropriate tactics to cause problems for the opposition  I can follow the rules of the game and play fairly  I can maintain possession of a ball  I can pass to team mates at appropriate times  I can lead others and act as a respectful team member  To pursue Outdoor adventures  I can arrive properly equipped for outdoor and adventurous activity  I understand the need to show accomplishment in managing risks  I can show an ability to both lead and form part of a team  I can support others and seek support if required when the situation dictates  I can show resilience when plans do not work and initiative to try new ways of working  I can use maps, compasses and digital devices to orientate myself  I can adapt plans to suit changing conditions  To Dance  I can plan, perform and repeat sequences  I can move in a clear, fluent and expressive manner  I can refine movements in to sequences  I can create dances and movements that convey a definite idea  I can change speed and levels within a performance  I can develop physical strength and suppleness by practicing moves and stretching | To perform gymnastics  I can plan, perform and repeat sequences  I can move in a clear, fluent and expressive manner  I can refine movements in to sequences  I can show changes of direction, speed and level during a performance  I can travel in a variety of ways (including flight and weight transference)  I can show a kinaesthetic sense in order to improve the placement and alignment of body parts (balances)  I can swing and hang from equipment safely (Using hands)  To Play Games  I can throw and catch with control and accuracy  I can strike a ball and field with control  I can choose appropriate tactics to cause problems for the opposition  I can follow the rules of the game and play fairly  I can maintain possession of a ball  I can pass to team mates at appropriate times  I can lead others and act as a respectful team member  To pursue Outdoor adventures  I can arrive properly equipped for outdoor and adventurous activity  I understand the need to show accomplishment in managing risks  I can show an ability to both lead and form part of a team  I can support others and seek support if required when the situation dictates  I can show resilience when plans do not work and initiative to try new ways of working  I can use maps, compasses and digital devices to orientate myself  I can adapt plans to suit changing conditions  To swim  I can swim unaided up to 25 metres  I can use one basic stroke, breathing correctly  I can control leg movements | To practice Athletics  I can sprint over a short distance up to 60 metres  I can run over a longer distance, conserving energy in order to sustain performance  I can use a range of throwing techniques (under and over arm)  I can throw with accuracy to hit a target or cover a distance  I can jump in a number of ways, using a run up where appropriate  I can compete with others and aim to improve personal best performances  To Play Games  I can throw and catch with control and accuracy  I can strike a ball and field with control  I can choose appropriate tactics to cause problems for the opposition  I can follow the rules of the game and play fairly  I can maintain possession of a ball  I can pass to team mates at appropriate times  I can lead others and act as a respectful team member  To swim  I can swim unaided up to 25 metres  I can use one basic stroke, breathing correctly  I can control leg movements |
| Concepts and milestones to cover in PSHE | Being me in my world  I know my attitudes and actions make a difference to the class team  I understand who is in my school community, their roles and how I fit in  I understand how democracy works through the school council  I understand that my actions affect myself and others; I care about other people’s feelings and try to empathise with them  I understand how groups come together to make decisions  I understand how democracy and having a voice benefits the school community  Celebrating difference  I understand that, sometimes, we make assumptions based on what people look like  I understand what influences me to make assumptions based on how people look  I know that sometimes bullying is hard to spot and I know what to do if I think it’s going on but I’m not sure  I can tell you why witnesses sometimes join in with bullying and sometimes don’t tell  I can identify what is special about me and value the ways in which I am unique  I can tell you a time when my first impression of someone changed when I got to know them | Dreams and goals  I can tell you about some of my hopes and dreams  I understand that sometimes hopes and dreams do not come true and that this can hurt  I know that reflecting on positive and happy experiences can help me to counteract disappointment  I know how to make a new plan and set new goals even if I have been disappointed  I know how to work out the steps to take to achieve a goal, and can do this successfully as part of a group  I can identify the contributions made by myself and other’s to a group’s achievement  Healthy me  I can recognise how different friendship groups are formed, how I fit in to them and the friends I value the most  I can recognise the changing dynamics between people in different groups, see who takes on which role and understand the roles I take in different situations  I understand the facts about smoking and its effects on health and also some of the reasons people start to smoke  I understand the facts about alcohol and its effects on health and also some of the reasons some people drink alcohol  I can recognise when people are putting me under pressure and can explain ways to resist this when I want  I know myself well enough to have a clear picture of what I believe is right and wrong | Relationships  I can identify the web of relationships that I am a part of – including those more distant  I can identify someone I love and can express why they are special to me  I can tell you about someone I know that I no longer see  I can explain different points of view on an animal rights issue  I understand how people feel when they love a special pet  I know how to show love and appreciation to the people and animals who are special to me  Changing me  I understand that some of my personal characteristics have come from my birth parents and that this happens because I am made from the joining of their egg and sperm  I can correctly label the internal and external parts of male and female bodies that are necessary for making a baby  I can describe how a girl’s body changes in order for her to be able to have babies when she is an adult, and that menstruation is a natural part of this  I know how the circle of change works  I can identify changes that have been and may continue to be outside of my control that I learnt to accept |

Concepts and milestones covered by relevant schemes of work spread appropriately throughout the year:

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| Music |
| Listen and Appraise   * I know 5 songs from memory and who sang/wrote them * I know the style of 5 songs * I can choose one song and am able to talk about: Lyrics and what the song is about and the musical dimensions and where they are used- texture, dynamics, tempo, rhythm and pitch. * I can identify the main sections of the song and name some of the instruments used. * I can name some of the instruments heard in the song |
| Games   * I can confidently find the pulse of the song * I understand how pulse, rhythm and pitch work together to create a song * I know that rhythm is the long and short patterns over the pulse * I can explain the difference between pulse and rhythm. * I can explain that pitch is the high and low sounds that create melodies * I can create musical ideas for my group/class to respond to |
| Singing   * I know that singing in a group can be called a choir; * I know that the leader or conductor is a person that the choir group follow; * I know that songs can make you feel different things * I can explain texture and understand that a solo singer makes a thinner texture than a large group * I understand why you must warm up your voice. |
| Playing   * I can discuss the instruments used in class and demonstrate how to play them * I can discuss other instruments that may be found in an orchestra or band |
| Improvisation   * I know and can talk about improvisation: * I can make up my own tunes on the spot; * I can create tunes that have never been heard before; * I understand that using one or two notes confidently is better than using five * I understand that if I improvise using the notes I am given, I cannot make a mistake. * I can use some riffs heard during lessons in my improvisations |
| Composition   * I understand that a composition is music that is created by me and kept in some way. * I can record compositions in different ways using letter names, symbols, audio etc. |
| Performance   * I understand that performing is sharing music with other people- an audience * I understand a performance doesn’t have to be a drama. It can be to one person or to each other. * I can sing and rap words clearly and play with confidence. * I can thoroughly plan a performance * I know that a performance involves communicating feelings, thoughts and ideas about the song/music. |

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| MFL (French) |
| To Listen attentively to spoken language and show understanding by joining in and responding   * I can repeat modelled words * I can listen and show understanding of single words through physical response * I can repeat modelled short phrases * I can listen and show understanding of short phrases through physical response   Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words   * I can listen and identify specific words in songs and rhymes and demonstrate understanding * I can listen and identify specific phrases in songs and rhymes and demonstrate understanding   Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help   * I can recognise a familiar question and respond with a simple rehearsed response * I can ask and answer a simple and familiar question with a response * I can express simple opinions such as likes, dislikes and preferences * I can ask and answer at least two simple and familiar questions with a response   Speak in sentences using familiar vocabulary, phrases and basic language structures   * I can name objects and actions and link words with a simple connective * I can use familiar vocabulary to say a short sentence using a language scaffold * I can speak about everyday activities and interests * I can refer to recent experiences or future plans   Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases   * I can identify individual sounds in words and pronounce accurately when modelled * I can start to recognise the sound of some letter strings in familiar words and pronounce when modelled * I can adapt intonation to ask questions or give instructions * I can show awareness of accents, elisions and silent letters   Present ideas and information orally to a range of audiences   * I can name nouns and present a simple rehearsed statement to a partner * I can present simple rehearsed statements about myself, objects or people to a partner * I can present ideas and information in simple sentences using familiar and rehearsed language to a partner or small group of people   Appreciate stories, songs, poems and rhymes in the language   * I can join in with actions to accompany familiar songs, stories and rhymes * I can join in with words of a song or storytelling   Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary   * I can use strategies for memorisation of vocabulary * I can make links with English or known language to work out the meaning of new words * I can use context to predict the meaning of new words * I can begin to use a bilingual dictionary to find the meaning of individual words in French and English   Write phrases from memory and adapt these to create new sentences to express ideas clearly   * I can write single familiar words from memory with understandable accuracy * I can write familiar short phrases from memory with understandable accuracy * I can replace familiar vocabulary in short phrases written from memory to create new short phrases   Read carefully and show understanding of words, phrases and simple writing   * I can read and show understanding of familiar single words * I can read and show understanding of simple phrases and sentences containing familiar words   Describe people, places, things and actions orally and in writing   * I can say or write simple familiar words to describe people, places, things and actions using a model * I can say or write a simple phrase that may contain an adjective to describe people, places, things and actions using a language scaffold * I can say or write one or two short sentences that may contain an adjective to describe people, places, things and actions   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 instances, to build sentences; and how these differ from or are similar to English. |