 Year 6 Curriculum concepts and milestones

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|  | Autumn | Spring | Summer |
| Concepts and Milestones to cover in Science | Biology –  To understand plants  I can relate knowledge of plants to studies of all living things  All experiments should also include working scientifically:  To work scientifically  I can plan enquiries including variables I can use appropriate techniques and apparatus I can take accurate measurements I can record data using scientific diagrams and labels, classification keys, graphs and models I can report findings as well as explanations of results I can present findings in written form, displays and other presentations I can use test results to make predictions and set up further fair tests | Biology –  To understand plants  I can relate knowledge of plants to studies of evolution and inheritance  To understand evolution and inheritance  I can recognise that living things have changed over time and fossils provide information about living things that inhabited the Earth millions of years ago  I can recognise that living things produce offspring of the same kind, but normally offspring vary  I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution | Physics –  To understand light and seeing  I can understand that light travels in straight lines  I can explain that objects are seen because they give out or reflect light in to the eyes  I can explain how shadows have the same shape as the objects that cast them and predict the size of shadows when the position of a light source changes  To investigate sound and hearing  I can find patterns between the pitch of a sound and features of the object that produced it  I can find patterns between the volume of a sound and the strength of the vibrations that produced it  I can recognise that sounds get fainter as the distance from the source increases  To understand electrical circuits  I can associate the brightness of the lamp or volume of a buzzer with the number and voltage of cells  I can compare and give reasons for variations in how components function  I can use recognised symbols when representing a simple circuit in a diagram |
| Concepts and milestones to cover in Geography | To investigate places  I can use different types of fieldwork to observe and measure the local area  I can name and locate some of the countries and cities of the world and their identifying human and physical characteristics  To investigate patterns  I can identify and describe the geographical significance of latitude, longitude, equator, northern and southern hemisphere, tropics of cancer and Capricorn, arctic and Antarctic circle and time zones  I can understand some of the reasons for geographical similarities and differences between countries  I can describe how locations around the world are changing and explain some of the reasons for change  I can describe geographical diversity across the world and discuss how some regions are interconnected or interdependent  To communicate geographically  I can describe key aspects of physical geography  Climate zones, biomes, vegetation belts, rivers, mountains, volcanoes, earthquakes and water cycle  I can describe key aspects of human geography  Settlements, land use, economic activity, distribution of natural resources  I can use the eight points of a compass, four figure grid references, symbols and a key to communicate knowledge about the UK and the world  I can create maps of locations | To investigate places  I can use different types of fieldwork to observe and measure the local area  I can name and locate some of the countries and cities of the world and their identifying human and physical characteristics  To investigate patterns  I can identify and describe the geographical significance of latitude, longitude, equator, northern and southern hemisphere, tropics of cancer and Capricorn, arctic and Antarctic circle and time zones  I can understand some of the reasons for geographical similarities and differences between countries  I can describe how locations around the world are changing and explain some of the reasons for change  I can describe geographical diversity across the world and discuss how some regions are interconnected or interdependent  To communicate geographically  I can describe key aspects of physical geography  Climate zones, biomes, vegetation belts, rivers, mountains, volcanoes, earthquakes and water cycle  I can describe key aspects of human geography  Settlements, land use, economic activity, distribution of natural resources  I can use the eight points of a compass, four figure grid references, symbols and a key to communicate knowledge about the UK and the world  I can create maps of locations | To investigate places  I can name and locate some of the countries and cities of the world including North and South America and their identifying human and physical characteristics  To investigate patterns  I can describe geographical diversity across the world and discuss how some regions are interconnected or interdependent  To communicate geographically  I can describe key aspects of physical geography  Climate zones, biomes, vegetation belts, rivers, mountains, volcanoes, earthquakes and water cycle  I can describe key aspects of human geography  Settlements, land use, economic activity, distribution of natural resources  I can use the eight points of a compass, four figure grid references, symbols and a key to communicate knowledge about the UK and the world  I can create maps of locations |
| Concepts and milestones to cover in History  Always cover communicate historically i.e. using English/ICT/  Maths to communicate | To investigate and interpret the past  I can use evidence to deduce information about the past  I can suggest suitable sources of evidence for historical enquiries and use a wide range of evidence to ensure it isn’t biased  I can understand propaganda and how we must always look at the social context of the evidence we are looking at  I understand no single source of evidence will give the full answer to questions about the past  To build an overview of world history  I can compare the times I am studying to those I studied in previous years  I can describe the social, ethnic, cultural or religious diversity of past society  I can describe the characteristic features of the past - Ideas, beliefs, attitudes and experiences of men, women and children  To understand chronology  I can describe the main changes in a period of history  I can identify periods of rapid change in history  To communicate historically  I can use appropriate historical vocabulary | To investigate and interpret the past  I can use evidence to deduce information about the past  I can suggest suitable sources of evidence for historical enquiries and use a wide range of evidence to ensure it isn’t biased  I can understand propaganda and how we must always look at the social context of the evidence we are looking at  I understand no single source of evidence will give the full answer to questions about the past  To build an overview of world history  I can compare the times I am studying to those I studied in previous years  I can describe the social, ethnic, cultural or religious diversity of past society  I can describe the characteristic features of the past - Ideas, beliefs, attitudes and experiences of men, women and children  To understand chronology  I can describe the main changes in a period of history  I can identify periods of rapid change in history  To communicate historically  I can use appropriate historical vocabulary | To investigate and interpret the past  I can use evidence to deduce information about the past  I can suggest suitable sources of evidence for historical enquiries and use a wide range of evidence to ensure it isn’t biased  I can understand propaganda and how we must always look at the social context of the evidence we are looking at  I understand no single source of evidence will give the full answer to questions about the past  To build an overview of world history  I can compare the times I am studying to those I studied in previous years  I can describe the social, ethnic, cultural or religious diversity of past society  I can describe the characteristic features of the past - Ideas, beliefs, attitudes and experiences of men, women and children  To understand chronology  I can describe the main changes in a period of history  I can identify periods of rapid change in history  To communicate historically  I can use appropriate historical vocabulary |
| Concepts and milestones to cover in Computing | To code  I can use if, conditions for movements. Specify types of rotation in degrees  To connect  I can collaborate with others online on sites approved and moderated by teachers  To collect  I can devise and construct databases and present in an effective manner | To code  I can upload sounds from a file and edit them adding effects  To connect  I can collaborate with others online on sites approved and moderated by teachers  To collect  I can devise and construct databases and present in an effective manner | To code  I change the position of objects between screen layers and combine the use of pens with movement  To connect  I can collaborate with others online on sites approved and moderated by teachers  To collect  I can devise and construct databases and present in an effective manner  (Please note that there is a separate e- safety curriculum to be followed) |
| 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 print  I can build up layers of colours  I can create an accurate pattern showing fine detail  I can use a range of visual elements to reflect the purpose of the work  To collage  I can mix textures  I can combine visual and tactile qualities  I can use ceramic mosaic materials and techniques  To take inspiration from the greats  I can give details about the style of some notable artists  I can show how the work of my artist was influential to others  I can create an original piece that shows a range of influences and styles | To draw  I can use a variety of techniques to add interesting effects  I can use a choice of techniques to depict movement, perspective, shadows and reflection  I can choose a style of drawing suitable for the work  To sculpt  I can show lifelike qualities and real life proportions or abstract interpretations  I can use tools to carve and add shapes, texture and pattern  I can combine visual and tactile qualities  I can use frameworks to provide stability and form  To use digital media  I can enhance digital media by editing | To paint  I can sketch before painting  I can create a colour palette  I can use watercolours and acrylics  I can combine colours, tones and tints to enhance the mood  I can use brush techniques to create texture  I can develop a personal style of painting, drawing upon ideas from other artists  To take inspiration from the greats  I can give details about the style of some notable artists  I can show how the work of my artist was influential to others  I can create an original piece that shows a range of influences and styles |
| 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 materials  I can cut materials with precision and refine the finish with appropriate tools  I can show an understanding of the qualities of materials to choose appropriate tools to cut and shape  To master practical skills with construction  I can develop a range of practical skills to create products  To take inspiration from design throughout history  I can combine elements of design from a range of inspirational designers  I can create innovative designs that improve upon existing products | To master practical skills with textiles  I can create objects that employ a seam allowance  I can join textiles with a combination of stitching techniques  I can use the qualities of materials to create suitable visual and tactile effects | To master practical skills with food  I can understand the importance of the correct storage and handling of ingredients  I can measure accurately and calculate ratios of ingredients to scale up or down in a recipe  I can demonstrate a range of baking and cooking techniques  I can create and refine recipes  To take inspiration from design throughout history  I can combine elements of design from a range of inspirational designers  I can create innovative designs that improve upon existing products |
| Concepts and milestones to cover in RE | To explore how being a Christian affects how you live your life  I can discuss how the bible teaches Christians to treat others  I can discuss how beliefs impact on actions and behaviours including examples of contemporary individuals | To explore how being a Muslim affects how you live your life  I can discuss how the Qur’an teaches Muslims to treat others  I can discuss how beliefs impact on actions and behaviours including examples of contemporary individuals  To explore how being a Hindu affects how you live your life  I can discuss how Hindu’s are taught to treat others  I can discuss how beliefs impact on actions and behaviours including examples of contemporary individuals | To compare and understand religions  I can discuss Buddhist beliefs  I can discuss Humanist beliefs  I can discuss atheist beliefs  I can explore what it means to live a good life |
| Concepts and milestones to cover in PE | To swim  I can swim unaided over 100 metres  I can use breast stroke, front crawl and back stroke ensuring that breathing is correct so as not to interrupt the pattern of swimming  I can swim fluently with controlled strokes  I can turn efficiently at the end of a length  To play games  I can choose and combine techniques in game situations  I can work alone, or with team mates in order to gain points or possession  I can strike a bowled or volleyed ball with accuracy  I can use forehand and backhand when playing racket games  I can field, defend and attack tactically by anticipating the direction of play  I can choose the most appropriate tactics for a game  I can uphold the spirit of fair play and respect in all competitive situations  I can lead others when called upon and act as a good role model within a team  To perform gymnastics  can create complex and well executed sequences that include a full range of movements (including: travelling, balances, swinging, springing, flight, vaults, inversions, rotations, bending, stretching, twisting, gestures and linking skills)  I can hold shapes that are strong, fluent and expressive  I can include in a sequence set pieces, choosing the most appropriate linking elements  I can vary speed, direction, level and body rotation during floor performances  I can practice and refine the gymnastic techniques used in performances  I can demonstrate good kinaesthetic awareness  I can use equipment to vault and swing | To play games  I can choose and combine techniques in game situations  I can work alone, or with team mates in order to gain points or possession  I can strike a bowled or volleyed ball with accuracy  I can use forehand and backhand when playing racket games  I can field, defend and attack tactically by anticipating the direction of play  I can choose the most appropriate tactics for a game  I can uphold the spirit of fair play and respect in all competitive situations  I can lead others when called upon and act as a good role model within a team  To dance  I can compose, creative and imaginative dance sequences  I can perform expressively and hold a precise and strong body posture  I can perform and create complex sequences  I can express an idea in original and imaginative ways  I can plan to perform with high energy, slow grace of other themes and maintain this throughout a piece  I can perform complex moves that combine strength and stamina gained through gymnastics activities  To pursue outdoor adventures  I can select appropriate equipment for outdoor and adventurous activity  I can identify possible risks and ways to manage them, asking for and listening carefully to expert advice  I can embrace both leadership and team roles and gain the commitment and respect of a team  I can empathise with others and offer support without being asked  I can remain positive even in the most challenging circumstances, rallying others if need be  I can use a range of devices in order to orient myself  I can adapt plans to suit changing conditions ensuring safety comes first | To swim  I can swim unaided over 100 metres  I can use breast stroke, front crawl and back stroke ensuring that breathing is correct so as not to interrupt the pattern of swimming  I can swim fluently with controlled strokes  I can turn efficiently at the end of a length  To play games  I can choose and combine techniques in game situations  I can work alone, or with team mates in order to gain points or possession  I can strike a bowled or volleyed ball with accuracy  I can use forehand and backhand when playing racket games  I can field, defend and attack tactically by anticipating the direction of play  I can choose the most appropriate tactics for a game  I can uphold the spirit of fair play and respect in all competitive situations  I can lead others when called upon and act as a good role model within a team  To dance  I can compose, creative and imaginative dance sequences  I can perform expressively and hold a precise and strong body posture  I can perform and create complex sequences  I can express an idea in original and imaginative ways  I can plan to perform with high energy, slow grace of other themes and maintain this throughout a piece  I can perform complex moves that combine strength and stamina gained through gymnastics activities  To practice athletics  I can combine sprinting with low hurdles over 60 metres  I can choose the best pace for running over a variety of distances  I can throw accurately and refine performance by analysing technique and body shape  I can show control in take off and landings when jumping  I can compete with others and keep track of personal best performances, setting targets for improvement |
| Concepts and Milestones covered in PSHE | Being me in my world  I can identify my goals for this year, understand my fears and worries about the future and know how to express them  I know that there are universal rights for all children but for many children these rights are not met  I understand that my actions affect other people locally and globally  I can make choices about my own behaviour because I understand how rewards and consequences feel and I understand how these relate to my rights and responsibilities  I understand how an individual’s behaviour can impact on a group  I understand how democracy and having a voice benefits the school community  Celebrating difference  I understand there are difference perceptions about what normal means  I understand how having a disability could affect someone’s life  I can explain some of the ways in which one person or a group can have power over another  I know some of the reasons why people use bullying behaviours  I can give examples of people with disabilities who lead amazing lives  I can explain ways in which difference can be a source of conflict and a cause for celebration | Dreams and goals  I know my learning strengths and can set challenging but realistic goals for myself  I can work out the learning steps I need to take to reach my goal and understand how to motivate myself to work on these  I can identify problems in the world that concern me and talk about them  I can work with others to help make the world a better place  I can describe some ways in which I can work with others to make the world a better place  I know what some people in my class like or admire about me and can accept their praise  Healthy me  I know the impact of food on the body  I know about different types of drugs and their uses  I can evaluate when alcohol is being used responsibly  I know and can put in to practice basic emergency aid procedures and know how to get help in emergency situations  I understand what it means to be emotionally well and can explore people’s attitudes towards mental health issues  I can recognise when I feel stressed and the triggers that cause this and I understand how this can cause alcohol misuse | Relationships  I can identify the most significant people to be in my life so far  I know some of the feelings we can have when someone dies or leaves  I understand that there are different stages of grief and that there are different types of loss that cause people to grieve  I can recognise when people are trying to gain power or control  I understand how technology can be used to try to gain power or control  I can use technology positively and safely to communicate  Changing me  I am aware of my own self-image and how my body image fits in to that  I can explain how we change during puberty and understand the importance of looking after yourself  I can ask the questions I need answered about changes during puberty  I can describe how a baby develops from conception  I understand how being physically attracted to someone changes the nature of the relationship  I can identify what I am looking forward to and what worries me about my transition to secondary school |

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, who sang/wrote them, when they were written and why? * I know the style of 5 songs and I can name songs with similar styles * I can choose 2-3 songs and am able to talk about: some of the indicators of the style, Lyrics and what the song is about; the musical dimensions and where they are used- texture, dynamics, tempo, rhythm, timbre and pitch; identify the main sections of the song and name some of the instruments used. * I can discuss the historical context of the songs and can discuss what else was going on at the time. * I can discuss the fact that we each have a musical identity |
| Games   * I can explain how pulse, dynamics, pitch, tempo, dynamics, texture and structure work together and how they connect in a song. * I can create musical ideas for the class/group to copy or respond to |
| Singing   * I know and can confidently sing five songs and their parts from memory * I understand the style of songs so you can represent the feeling and context to the audience * I can choose a song and can discuss its main features * I can sing in unison, the solo, lead vocal, backing vocals or Rap. * I can explain what songs are about and the meaning of the lyrics * I can explain the importance of warming up your voice. |
| Playing   * I can discuss different ways of writing music down for example: staff notation and symbols. * I can demonstrate the notes C,D,E,F,G,A,B and C of the treble stave * I can discuss and identify instruments played in a band or orchestra |
| 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 name three well known improvising musicians |
| Composition   * I know that a composition is music that is created by me and kept in some way. * I know that a composition has a pulse, rhythm and pitch that work together and are shaped by tempo, dynamics, texture and structure * I can recognise the difference between sound and symbol notation |
| 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 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 listen and show understanding of simple sentences containing familiar words through physical response * I can listen and understand the main points and some detail from short, spoken material in the target language   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 rhyming words and specific sounds in songs and rhymes * I can follow the text of familiar songs and rhymes, identifying the meaning of words * I can read the text of familiar songs and identify patterns of language and link the sound to spelling   Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help   * I can engage in a short conversation using a range of simple, familiar questions * I can ask and answer more complex questions with a scaffold of responses * I can express a wider range of opinions and begin to provide simple justifications * I can converse briefly without prompts   Speak in sentences using familiar vocabulary, phrases and basic language structures   * I can say a longer sentence using familiar language * I can use familiar vocabulary to say several longer sentences using a language scaffold * I can refer to everyday activities and interests, recent experiences and future plans * I can vary language and produce extended responses   Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases   * I can pronounce familiar words accurately using knowledge of letter string sounds to support, observing silent letter rules * I can appreciate the impact of accents and elisions on sound and apply increasingly confidently when pronouncing words * I can start to predict the pronunciation of unfamiliar words in a sentence using knowledge of letter strings, liaison and silent letter rules * I can adapt intonation   Present ideas and information orally to a range of audiences   * I can manipulate familiar language to present ideas and information in simple sentences * I can present a range of ideas and information, using prompts, to a partner or a small group of people * I can present a range of ideas and information, without prompts, to a partner or a group of people   Appreciate stories, songs, poems and rhymes in the language   * I can follow the text of a familiar song or story * I can follow the text of a familiar song or story and sing or read aloud * I can understand the gist of an unfamiliar story or song using familiar language   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 a range of strategies to determine the meaning of new words * I can use a bilingual dictionary to identify the word class * I can use a bilingual dictionary or online tool to find the meaning of unfamiliar words and phrases   Write phrases from memory and adapt these to create new sentences to express ideas clearly   * I can write a simple sentence from memory using familiar language * I can write several sentences from memory with familiar language with understandable accuracy * I can replace vocabulary in sentences written from memory to create new sentences with understandable accuracy   Read carefully and show understanding of words, phrases and simple writing   * I can read and show understanding of simple sentences containing familiar and some unfamiliar language * I can read and understand the main points from short, written material * I can read and understand the main points and some detail from short, written material   Describe people, places, things and actions orally and in writing   * I can say or write several simple sentences containing adjectives to describe people, places, things and actions using a language scaffold * I can manipulate familiar language to describe people, places, things and actions using a dictionary * I can use a wider range of descriptive language in my descriptions   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. |