Class: Barbastelle (Year 3/4)
Terms – 5&6
Title: What is the Circle of Life?
Learning Cycle B
Main subject focus: Geography/ Science

Big enquiry questions worth asking:
Learning Theme Big Question:
What is the Circle of Life?

Why is this so important?
To develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge of key topographical features (including hills, mountains, coasts and rivers) and to describe and understand key aspects of physical geography such as, rivers, mountains, and the water cycle. In Science it is important that children understand the plant life cycles, starting with plant organs and their roles, then moves into the life cycle of a plant. The life cycle focuses on the development of a seed to an adult plant.

Other questions worth asking:

- What is a cycle?
- What are the names of the most famous rivers and mountains (in the world/ in the UK)?
- What is the water cycle?
- What are the meaning of these words: estuary, meander, precipitation, infiltration, percolation, tributary?
- What are the main organs of plant?
- What are the key stages of a plants life cycle?
- What is the process of pollination?
- How to plants make their own food?
- What is an ecosystem?
- What can we do to reduce water pollution?

What do we want the children to know? (Knowledge)
To name and locate some of the UK's most significant rivers and mountains, to describe a river and a mountain environment in the UK, using appropriate geographical vocabulary, describe the water cycle in sequence, using appropriate geographical vocabulary, name (some of) the processes associated with rivers and mountains, name some of the world's great rivers and mountains.

What will be your real life project? Local study and trip of River Avon

Trips and visits: Local study and trip of River Avon – visit from Wessex Water

Key knowledge (from NC)	Key knowledge and vocabulary (in bold)	Key skills progression
<u>As geographers we will:</u> <u>Geographical Knowledge</u> ● Name and locate and geographical regions of the UK and recognise their identifying physical characteristics. <u>Geographical Understanding</u> ● Describe and understand key aspects of physical geography including rivers, mountains and the water cycle. ● Establish an understanding of the interaction between physical and human processes. <u>Geographical Skills and Enquiry</u> ● Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. ● Use a range of methods including sketch maps, plans and graphs, and digital technologies. ● Use fieldwork to observe, measure, record and present features in the local area (e.g. of activities and models in the school grounds).	• name and locate some of the UK's most significant rivers and mountains • describe a river and a mountain environment in the UK, using appropriate geographical vocabulary • describe the water cycle in sequence, using appropriate geographical vocabulary • name (some of) the processes associated with rivers and mountains • name some of the world's great rivers and mountains • use OS and other (e.g. road) maps to locate and follow rivers <u>Specific Vocabulary:</u> River, stream, valley, mountain, hill, water cycle, flow, infiltration, percolation, source, mouth, estuary, sea, terrain, tributary, confluence, meander, Evaporation, condensation, clouds, transpiration, sun, heat, sea, evaporate, evaporation, water vapour, droplets, (dark) clouds, rain, land, precipitation – rain, snow and hail, hydrological cycle, valley, (Thames) basin, urban, rural, village, town, city, capital city, gradient, , crossing points/bridges, ports/docks, industries, trade links and could include Three Gorges Dam, hydro-electric, Himalayas, Andes, Atlas, Rockies, Pyrenees, Alps, Great Dividing Range, Urals, Appalachians, North West/Scottish Highlands, Tianshan, Snowdonia, Drakensburg, Antarctic Mountains power, dam, reservoir, flood control, irrigation, water extraction, sacred river, OS (Ordnance Survey) map, grid reference, key, upstream, downstream, erode/erosion, transport/transportation,	• To ask questions about the natural and wider world • To make records (pictures, writing, photos) of their immediate environment. • To express own view of people, places and environment • To use books as secondary sources of information • To describe and understand key aspect of physical geography in the context of rivers and mountains …… Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.

	deposit/deposition, percolate/percolation, infiltrate/infiltration, rain/precipitation	
<u>As scientists we will…</u> • identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant • investigate the way in which water is transported within plants • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	Pupils should be introduced to the relationship between structure and function: the idea that every part has a job to do. They should explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction. Pupils might work scientifically by: comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by observing the different stages of plant life cycles over a period of time; looking for patterns in the structure of fruits that relate to how the seeds are dispersed. They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers. Specific vocabulary: Transpiration, photosynthesis, carbon dioxide, pollination, dispersal, xylem, phloem, glucose Specific vocabulary: habitat, ecology, heron, bacteria, interdependent, wetland, ecosystem, environment, air pollution, climate change, water	**<u>Term 5 and 6:</u>** • Start asking relevant questions and using different types of scientific enquiries to answer them • Starting to set up simple practical enquiries, comparative and fair tests • Starting to make systematic and careful observations and, where appropriate, taking accurate measurements using standard units • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their findings

…… • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things	pollution, deforestation, greenhouse gasses, emission, smog, chemical, contaminate, conserve. …… Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. They should identify how the habitat changes throughout the year. Pupils should explore possible ways of grouping a wide selection of living things that include animals, flowering plants and non-flowering plants. Pupils could begin to put vertebrate animals into groups, for example: fish, amphibians, reptiles, birds, and mammals; and invertebrates into snails and slugs, worms, spiders, and insects. Pupils should explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation. Pupils might work scientifically by: using and making simple guides or keys to explore and identify local plants and animals; making a guide to local living things; raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.	

<u>As a theologist we will ask…</u> **KS2 Unit 6: How do we make moral choices?**	The focus here is on developing and encouraging pupils to consider relevant moral issues in their own lives and possible consequences of certain actions. They will also explore Hindu and Christian codes of behaviour and compare and contrast, then make this relevant to their own experiences. <u>Supplementary Questions:</u> a) What are moral questions? b) What are the consequences of the moral choices we make? c) What people and organisations help in making moral choices? d) What are the most important moral values and teachings? How do we decide what is right and wrong? <u>Specific vocabulary</u> Navratri, divine, Hindu, 'righteous living', mother, deity, Devis, deities, divine mother, transformation, literal, metaphorical, moral dilemma, consequences, prayer, material and spiritual, saints, holy, intercessors, prayer, spiritual, fast, festival, self-discipline, symbolism, qualities, characteristics	**Investigation /Interpretation** ask questions about who we are and where we belong, and suggest answers that make reference to people who have inspired them and others **Reflection /Empathy** use religious words to describe some of the different ways in which people show their beliefs. **Evaluation/ Analysis** -ask questions about the meaning and purpose of life, and suggest a range of answers which might be given by them as well as members of different religious groups. -talk about the things in a picture or artefact that make people ask questions - describe what a Hindu believer might learn from thinking about the Hindu Deities and beliefs about the Navratri festival **Synthesis/ Application /Expression** -link things that are important to them, e.g. the role of mothers, and Hindus, e.g. the role of the Divine Mother, with the way they think and behave towards mothers and also towards those with less power than them **Expression / Self-understanding** - ask questions about who we are and where we belong, and suggest answers that make reference to people who have inspired them and others
<u>As information technologists we will:</u> <u>Programming – Repetition in shapes</u>	Learners will create programs by planning, modifying, and testing commands to create shapes and patterns.	To list an everyday task as a set of instructions including repetition

• Design, write and debug programs that accomplish specific goals. • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • Suggested subject links Maths: Games can be used for reinforcing many areas of mathematics. • Possible applications include practising recall of multiplication and/or division facts, rounding decimals with one decimal place to the nearest whole number, or converting between different units of measure. • English: Using audio recording and playback, it is possible to create spelling tests. • Languages: Games can be used to practise vocabulary in foreign languages. • Any subject where there are facts to learn can also provide a useful context, such as dates in history or capital cities in geography.	They will use Logo, a text-based programming language. Sequence, software, develop, design, debug, selection, repetition, variables, input, output, algorithms, program.	To use an indefinite loop to produce a given outcome To use a count-controlled loop to produce a given outcome To plan a program that includes appropriate loops to produce a given outcome To recognise tools that enable more than one process to be run at the same time (concurrency) To create two or more sequences that run at the same time
<u>As athletes we will…</u> • swim competently, confidently and proficiently over a distance of at least 25 metres • perform safe self-rescue in different water-based situations	• use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] <u>Specific vocabulary:</u> Stroke, propel, float, backstroke, front crawl, breast stroke, butterfly, dolphin kick, free style, frog kick, lap, length, width, metre, depth, deep, shallow, surface, safety, dive, jump, apparatus (floats and toggles)	• Swim between 10-20 metres unaided in shallow water, using their arms and legs to propel themselves. • They will use one basic method to swim the distance, making sure that they breathe. • They will start by using floats, swim over longer distances and periods of time with more controlled leg kick. • They will explore freely how to move in and under water, recognise how the water afters their temperature and identify and describe

…… <u>Athletics/ Sports Day Practice</u> • use running, jumping, throwing and catching in isolation and in combination • play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending • develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics] • perform dances using a range of movement patterns • take part in outdoor and adventurous activity challenges both individually and within a team • compare their performances with previous ones and demonstrate	…… • Develop consistency of skill replication to achieve an outcome in isolation and competitively. • Describe the effectiveness of performances & recognise aspects that need improving. • Use of simple tactics & strategies in different situations.	the difference between different leg and arm actions …… • Children will earn to swim between 20-30 metres and keep swimming for 45 to 90 seconds • Use three different strokes, swimming on their front and back. • They will control their breathing and swim confidently and fluently on the surface and under the water • Children should know the dangers of water locally and nationally • Learn how and why to use appropriate survival and self- rescue skills if they fall in by accident or get into difficulty and knowing what to do if others get into trouble. …… • Running • Jumping • Throwing • Relay/Speed Matching • Aiming • Balance

improvement to achieve their personal best.		
As designers and artists we will… • Create sketch books to record observations and use them to review and revisit ideas • Improve mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] • Learn about great artists, architects and designers in history. • Select from and use a range of tools and equipment to perform practical tasks	**Art** • Build on colour mixing by creating their own secondary/tertiary colours from only providing them primary colours. • To create watercolour river artwork, inspired by picture books studied in class such as, 'A River' by Marc Martin • creating work based on John Constable and Claude Monet's river art as well as learning to recognise every picture tells a story by studying artists such as David Hockney and the pop art movement. **DT** • Design and create a cushion using cross stitch and applique skills.	• Produce creative work, exploring their ideas and recording their experiences and observations and use them to review and revisit ideas. • Become proficient in drawing, painting, sculpture and other art, craft and design techniques • Evaluate and analyse creative works using the language of art, craft and design • Know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms. • 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 • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
As musicians we will: **(Charanga Planning)**	Explore and develop playing skills using the glockenspiel.	• To confidently identify and move to the pulse.

understand and explore how music is created, produced and communicated, including through the interrelated dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations.	Songs to support (mixed genres) Mardi Gras Groovin', Two-Way Radio, Flea, Fly, Mosquito, Rigadoon, Mamma Mia, Portsmouth Strictly D, Play Your Music Drive Vocabulary: Pitch, rhythm, dynamics, song, rap, lyrics, compose, perform, pulse, timbre, texture, structure, notation. *We will also learn the music for the end of year production.*	• To talk about the musical dimensions working together in the Unit songs eg if the song gets louder in the chorus (dynamics). • Talk about the music and how it makes them feel. • Listen carefully and respectfully to other people's thoughts about the music. • When you talk try to use musical word
<u>As a linguistic we will:</u> **<u>(Kapow Scheme)</u>** **<u>Circle of Life</u>** Using their dictionary skills to develop their animal vocabulary and habitat names. Building sentences and completing food chains to apply this vocabulary in writing. • Using a bilingual dictionary. • Learning to use the correct form of the definite article - le,la, l' and les in • relation to animal nouns. • Creating a negative statement using ne and pas. • Solving language problems. • Building noun - verb - noun sentences to describe food chains.	• To know that I can find the gender of a noun by looking it up in the dictionary where French nouns are followed by a gender indicator • To know that a bilingual dictionary is a special dictionary to translate words from one language to another • To know that a bilingual dictionary is in two parts- one where the words are listed in French and the other where the words are listed in English • To know that placing ne and pas around a verb makes the verb negative • To know that we use the definite article when describing something specific and that the one we use depends on the gender of the noun: le (m.), la (f.), les (m./f. plural) and l' (when followed by a vowel)	• Asking and/or answering simple questions • Practising speaking with a partner • Using short phrases to give information • Listening and repeating key phonemes with care • Repeating short phrases accurately, including liaison of final consonant before vowel • Listening and responding to single words and short phrases • Following verbal instructions in French • Responding to objects or images with a phrase or other verbal response • • Listening and identifying key words in rhymes and songs and joining in • Beginning to identify vowel sounds and combinations • Recognising some familiar words in written form • Beginning to develop dictionary skills • Identifying cognates and near cognates

	<u>Specific vocabulary:</u> Les animaux - the animals un lapin - a rabbit un loup - a wolf un oiseau - a bird un poisson - a fish un serpent - a snake un singe - a monkey un ver - a worm une baleine - a whale une grenouille - a frog une tortue - a tortoise le - the) for masculine singular nouns) la - the (for feminine singular nouns) l’ - the (for singular nouns beginning with a vowel or an 'h' (usually)) qui ? – who? Où est ? - Where is? il/elle habite - he/she/it lives dans - in la jungle- the jungle le désert - the desert la forêt - the forest la savane - the savannah la mer - the sea l’étang (masc.) - the pond l'éléphant - the elephant est - is mange - eats mangé(e) - eaten par - by la chaîne alimentaire - the food chain le lion - the lion le chat - the cat la chenille - the caterpillar la feuille - the leaf un carnivore un herbivore	• Experimenting with simple writing, copying with accuracy • Beginning to recognise gender of nouns, definite and indefinite article • Identifying plurals of nouns • Beginning to understand that verbs have patterns • Noticing the negative form • Beginning to use prepositions

	un omnivore les plantes - the plants	
In PSHE we will: Puzzle 5: Relationships Puzzle 6: Changing Me	• See Jigsaw Scheme for details	•