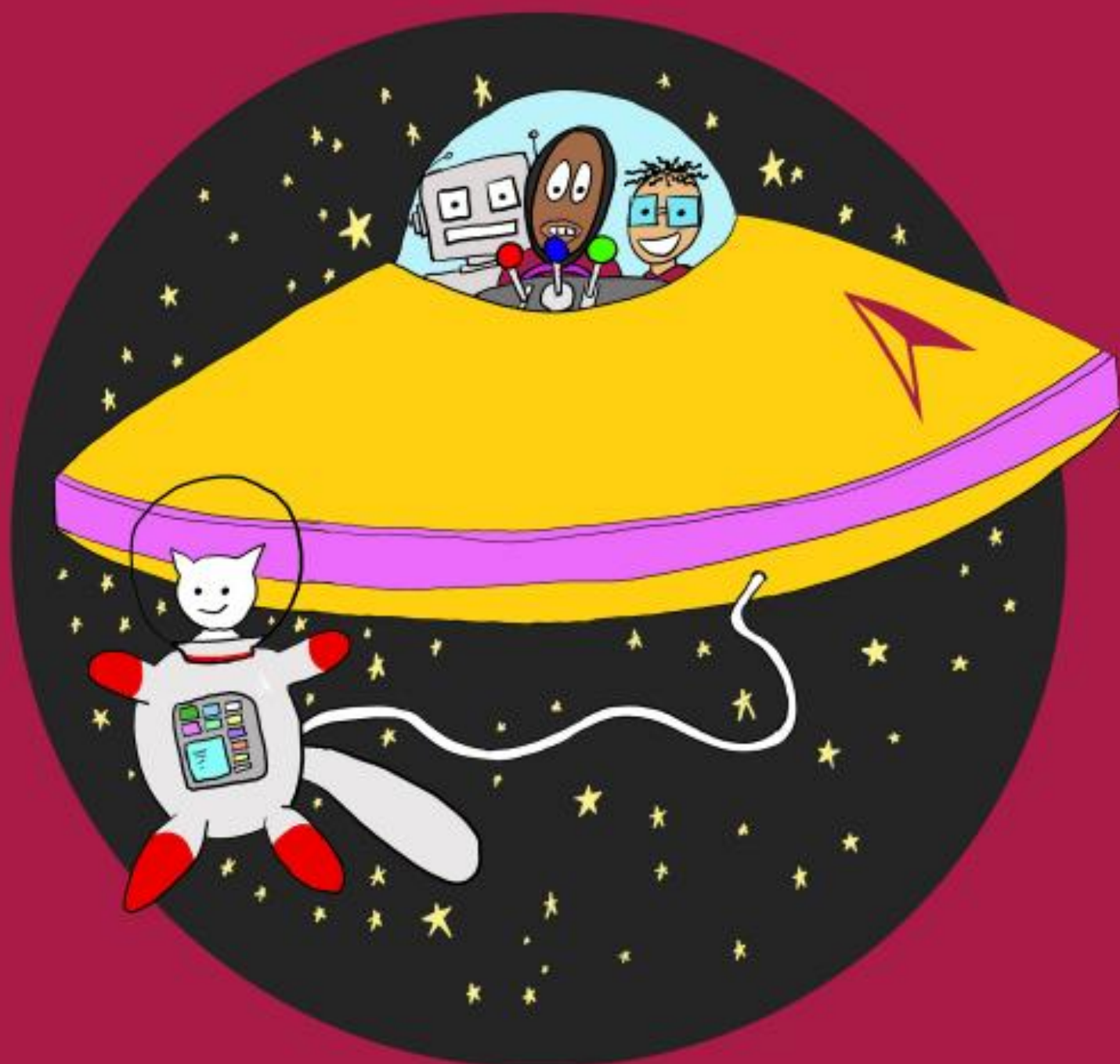


NORTH PRIMARY'S OUT OF THIS WORLD CURRICULUM



YEAR

4


Creative Themes:

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	Anglo Saxons		Rivers/Cooking		Egyptians	
						



Year Group Overview:

Year 4 – Autumn – Raiders or Traders?		
English Reading at Bookband Lime/Brown	Mathematics Reasoning with 4 digit numbers, Problem solving with integer addition and subtraction, Multiplication and division, Time, Discrete and continuous data (2 weeks)	Science Name that Living Thing? Excuse me are these your teeth?
History Invaders and Settlers Anglo-Saxons and Scots	Art and Design Anglo Saxon Art	Computing Programming/Coding Editing audio
Design and Tech Bayeux Tapestry	Geography B – Name and locate countries and cities of UK, identify human and physical features	RE 2 - Hinduism
PE Floor Movement Balance/Agility Swimming	Music Harvest songs, poems and raps Compose class musical piece based around Rama and Sita Songs and musical composition relating to Christmas concerts	French Rigalo 1 Units 7&8

Spring – Ain't No Mountain High Enough

English Reading at Bookband Brown/Grey	Mathematics Fractions, Decimals, Area and perimeter, Solving problems with addition and subtraction	Science B – Animals including humans C – States of matter
History D. The Viking and Anglo Saxon struggle for the Kingdom of England to the time of Edward the Confessor	Art and Design Using sketch books Turner	Computing Data Handling: Branching Databases Database
Design and Tech A & B Cooking and Nutrition 	Geography Key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time related to Viking and Anglo Saxon settlement	RE 13 - History of belief in the UK
PE Balance, Ball Skills and using Equipment Swimming	Music To learn the 'Body Song' and create appropriate actions to accompany it. (link to Science)	French Rigalo 1 units 9&10

Summer - Sands of Time (The Egyptians)

English Reading at Bookband Grey/Dark blue	Mathematics Coordinates, shape and symmetry, calculating with whole numbers and decimals, 7 & 9 times tables	Science It's Electric Listen Up
History Egyptology	Art and Design  Spirituality through art – RE link	Computing Text and multimedia Online Safety
Design and Tech Canopic Jars 	Geography Egypt	RE 6 – Spirituality through art PSHE – Health and wellbeing
PE Reaction and response, balance, ball chasing	Music Learn Easter songs and percussion rhythms in order to perform at a special assembly (link to RE)	French Rigalo 1 units 11 & 12

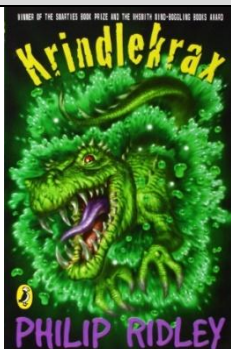
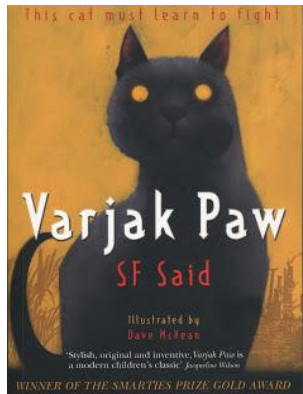
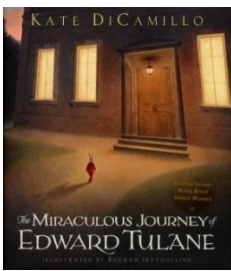
English

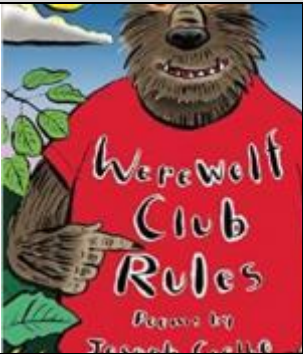
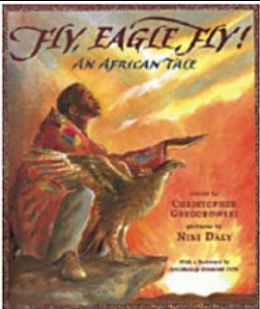

Explicit Handwriting Expectations:

The quick brown fox jumps over the lazy dog

Good handwriting practice is encouraged in all written work, but particularly in Literacy.

Children who join can obtain pen licenses, but cannot write in any other pen than a handwriting pen (NO BIRO)

Autumn 1	
	<p>Krindlekrax</p> <p>Philip Ridley</p> <p>(Fiction)</p> <p>Teaching time 7-8 weeks</p>
Autumn 2	
	<p>Varjak Paw</p> <p>S F Said</p> <p>(Fiction)</p> <p>Teaching time 7 - 8 weeks</p>
Spring 1	
	<p>The Miraculous Journey of Edward Tulane</p> <p>Kate DiCamillo</p> <p>(Fiction)</p> <p>Teaching time 6-7 weeks</p>

Spring 2	
	<p>Werewolf Club Rules</p> <p>Joseph Coelho</p> <p>(poetry)</p> <p>Teaching time 2- 4 weeks</p>
Summer 1	
	<p>Fly, Eagle, Fly</p> <p>Christopher Gregorowski</p> <p>(Fiction)</p> <p>Teaching time 5-6 weeks</p>
Summer 2	
	<p>Noah Barleywater runs away</p> <p>John Boyne</p> <p>(Fiction)</p> <p>Teaching time 6 - 7 weeks</p>

Mathematics

Autumn

Reasoning with 4 digit numbers (2 weeks)	<ul style="list-style-type: none"> • find 1000 more or less than a given number • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • order and compare numbers beyond 1000 • solve number and practical problems that involve all of the above and with increasingly large positive numbers • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1000 • read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value • count in multiples of 6, 7, 9, 25 and 1000
Problem solving with integer addition and subtraction (2 weeks)	<ul style="list-style-type: none"> • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • estimate and use inverse operations to check answers to a calculation • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
Multiplication and division (3 weeks)	<ul style="list-style-type: none"> • recall multiplication and division facts for multiplication tables up to 12×12 • solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects • recognise and use factor pairs and commutativity in mental calculations • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • multiply two-digit and three-digit numbers by a one-digit number using formal written layout
Time (1 week)	<ul style="list-style-type: none"> • convert between different units of measure [for example, hour to minute] • problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days • write and convert time between analogue and digital 12- and 24-hour clocks
Discrete and continuous data (2 weeks)	<ul style="list-style-type: none"> • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs • interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs

Spring	
Fractions (3 weeks)	<ul style="list-style-type: none"> • add and subtract fractions with the same denominator • recognise and show, using diagrams, families of common equivalent fractions • count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten • solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
Decimals (3 weeks)	<ul style="list-style-type: none"> • find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ • round decimals with one decimal place to the nearest whole number • compare numbers with the same number of decimal places up to two decimal places
Area and perimeter (2 weeks)	<ul style="list-style-type: none"> • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • convert between different units of measure [for example, kilometre to metre] • find the area of rectilinear shapes by counting squares
Solving problems with addition and subtraction (2 weeks)	<ul style="list-style-type: none"> • solve simple measure and money problems involving fractions and decimals to two decimal places • estimate, compare and calculate different measures, including money in pounds and pence

Summer	
<p>Coordinates, shape and symmetry</p> <p>(4 weeks)</p>	<ul style="list-style-type: none"> • describe positions on a 2-D grid as coordinates in the first quadrant • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon • compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify acute and obtuse angles and compare and order angles up to two right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry
<p>Calculating with whole numbers and decimals</p> <p>(5 weeks)</p>	<ul style="list-style-type: none"> • consolidation and application opportunities
<p>7 & 9 times tables</p> <p>(1 week)</p>	<ul style="list-style-type: none"> • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

Science

Block	Key NC Science Objectives	Key Science Activities
<p>Name that living thing!</p> <p><i>You are needed to become experts in the use of classification keys to help group, identify and name a variety of living things! Learn about the 7 characteristics of a living thing; sort living things in a number of ways; make a dichotomous classification key to identify local invertebrates; make observational drawings and a group large-scale drawing of an insect; finally demonstrate your knowledge of classification keys to a young invited audience.</i></p>	<p>Living things and their habitats</p> <ul style="list-style-type: none"> i) recognise that living things can be grouped in a variety of ways ii) explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment <p>Working Scientifically</p> <ul style="list-style-type: none"> i) asking relevant questions and using different types of scientific enquiries to answer them ii) setting up simple practical enquiries, comparative and fair tests iii) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers iv) gathering, recording, classifying and presenting data in a variety of ways to help in answering questions v) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables vi) reporting on findings from enquiries, 	<ul style="list-style-type: none"> • Ask relevant questions about living things and their habitats and begin to group them (sorting, classifying and identifying). • Observe local habitats and record living things they see around them (exploring, sorting, classifying and identifying). • Create a branching database to sort and identify local invertebrates (sorting, classifying and identifying). • Make close observational drawings and large-scale drawings; understand that tiny details of features help with classification (classifying and identifying). • Write a branching database for a variety of living things in the wider environment (researching and analysing secondary sources, classifying and identifying).

	<p>including oral and written explanations, displays or presentations of results and conclusions</p> <p>vii) using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>viii) identifying differences, similarities or changes related to simple scientific ideas and processes</p> <p>ix) using straightforward scientific evidence to answer questions or to support their findings</p>	
<p>Excuse me, are these your teeth?</p> <p><i>Excuse me, are these your teeth? Who did this poo? Am I a predator?....Find the answers to these and other peculiar questions about digestion and food chains.</i></p>	<p>Animals, including humans (4AH)</p> <p>i) describe the simple functions of the basic parts of the digestive system in humans</p> <p>ii) identify the different types of teeth in humans and their simple functions</p> <p>iii) construct and interpret a variety of food chains, identifying producers, predators and prey</p> <p>Working Scientifically (LKS2)</p> <p>i) asking relevant questions and using different types of scientific enquiries to answer them</p> <p>ii) setting up simple practical enquiries, comparative and fair tests</p> <p>iii) making systematic and careful observations and, where appropriate, taking accurate</p>	<ul style="list-style-type: none"> Learn about the first stage of the digestive system, consider why our teeth are different shapes and have different functions (exploring, researching, analysing secondary sources) Use everyday objects to demonstrate the human digestive system (exploring) Use physical activity to demonstrate an understanding of the functions of each part of the digestive system (exploring)

	<p>measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>iv) gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p> <p>v) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>vi) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>vii) using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>viii) identifying differences, similarities or changes related to simple scientific ideas and processes</p> <p>ix) using straightforward scientific evidence to answer questions or to support their findings</p>	<ul style="list-style-type: none"> Find out what we can learn from a poo (exploring, researching, analysing secondary sources) Interpret food chains and discuss the impact of changes to a chain (exploring, researching, analysing secondary sources) Plan and perform a 'Healthy Teeth' assembly for an invited audience (problem solving)
<p>Help our Habitats!</p> <p><i>Your local council needs you! They want to turn an old industrial site in your town back to a wildlife haven. Which plants and animals would have lived here? What do they need to be able to live here again? Learn about wildlife and</i></p>	<p>Living things and their habitats (4LvH)</p> <p>i) recognise that environments can change and that this can sometimes pose dangers to living things</p> <p>Working Scientifically (LKS2)</p>	<ul style="list-style-type: none"> Take a walk around their school environment and consider how and why changes have happened (exploring) Consider natural and manmade changes to the

<p><i>their habitats. How have their environments changed? What can we do to help them?</i></p>	<ul style="list-style-type: none"> i) asking relevant questions and using different types of scientific enquiries to answer them ii) setting up simple practical enquiries, comparative and fair tests iii) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers iv) gathering, recording, classifying and presenting data in a variety of ways to help in answering questions v) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables vi) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions vii) using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions viii) identifying differences, similarities or changes related to simple scientific ideas and processes ix) using straightforward scientific evidence to 	<p>environment (exploring)</p> <ul style="list-style-type: none"> • Look in more detail at climate change (exploring, analysing) • Look at some on the impacts to living things if an environment changes (analysing) • Plan how to make a positive change to a small local area considering the impact on people and other living things (classifying, identifying)
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	answer questions or to support their findings	
<p>States of Matter Scientists</p> <p><i>Become experts in States of Matter! Develop and showcase an understanding of all areas of states of matter, including how materials can change from one state to another, through a large range of simple practical enquiries. Take on the challenge to demonstrate your knowledge to visitors of a Science Fair.</i></p>	<p>States of Matter (4SM)</p> <ul style="list-style-type: none"> i) compare and group materials together, according to whether they are solids, liquids or gases ii) observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) iii) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature <p>Working Scientifically (LKS2)</p> <ul style="list-style-type: none"> i) asking relevant questions and using different types of scientific enquiries to answer them ii) setting up simple practical enquiries, comparative and fair tests iii) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers iv) recording findings using simple scientific 	<ul style="list-style-type: none"> • Identify misconceptions and classify materials into solids, liquids and gases (sorting and classifying). • Investigate the presence of gases (exploring). • Understand the behaviour of particles in the different states and use a thermometer to observe temperature changes of water (observing over time/exploring). • Investigate evaporation and condensation (fair testing/exploring). • Understand and explain the water cycle using scientific language (exploring). • Demonstrate an understanding of states of matter by recreating a range of simple practical enquiries (exploring).

	<p>language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>v) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>vi) using straightforward scientific evidence to answer questions or to support their findings</p>	
<p>It's Electric!</p> <p><i>Learn all about electrical circuits and test materials ability to conduct electricity. Put your knowledge of circuits on display by building your own circuit to create a buzz-wire game. Then use your game to try to defeat a challenger. Who can remain 'disconnected' on the game? You will need to impress with your electrical knowhow.</i></p>	<p>Electricity (4E)</p> <p>i) identify common appliances that run on electricity</p> <p>ii) construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>iii) identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>iv) recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>v) recognise some common conductors and insulators, and associate metals with being good conductors</p> <p>Working Scientifically (LKS2)</p>	<ul style="list-style-type: none"> • Explore electricity and understand what you already know (exploring). • Understand electricity and the dangers it poses (exploring). • Identify electrical components and explore electrical circuits (problem solving and exploring). • Sort materials into conductors and insulators by testing them within a circuit (sorting and classifying). • Using knowledge of electrical circuits, build a buzz-wire game (problem solving). • Demonstrate an understanding of electrical circuits with a class quiz.

	<ul style="list-style-type: none"> vii) asking relevant questions and using different types of scientific enquiries to answer them viii) setting up simple practical enquiries, comparative and fair tests ix) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers x) gathering, recording, classifying and presenting data in a variety of ways to help in answering questions xi) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables xii) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions xiii) using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions xiv) identifying differences, similarities or changes related to simple scientific ideas and processes xv) using straightforward scientific evidence to 	
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	answer questions or to support their findings	
<p>Listen Up!</p> <p><i>The rock stars of the world need your help! They want their children to come to their concerts and rock-out, but they want to protect their precious ears! Find out all you can about sound; how it travels, pitch and volume. Then investigate materials to see which will provide the best insulation against sound. Be ready to present your ideas to a famous panel.</i></p>	<p>Sound (4S)</p> <ul style="list-style-type: none"> i) identify how sounds are made, associating some of them with something vibrating ii) recognise that vibrations from sounds travel through a medium to the ear iii) find patterns between the pitch of a sound and features of the object that produced it iv) find patterns between the volume of a sound and the strength of the vibrations that produced it v) recognise that sounds get fainter as the distance from the sound source increases <p>Working Scientifically (LKS2) (scientific enquiries to answer them</p> <ul style="list-style-type: none"> xvi) setting up simple practical enquiries, comparative and fair tests xvii) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers xviii) gathering, recording, classifying and presenting data in a variety of ways to help in answering questions 	<ul style="list-style-type: none"> • Go on a 'sound walk' through the school and begin to think about how sound is made (exploring). • Explore sound further and investigate vibrations and how sound travels (exploring, problem solving). • Investigate pitch and volume by exploring instruments and the different sounds they make (exploring, pattern seeking). • Understand how we hear sounds and begin to consider ways to reduce what we can hear (exploring, pattern seeking, problem solving). • Plan and conduct an investigation into which material best reduces the sounds we hear (pattern seeking, fair testing, exploring over time, problem solving). • Present your ear defenders design, and explain your findings (problem solving).

	<p>xix) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>xx) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>xxi) using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>xxii) identifying differences, similarities or changes related to simple scientific ideas and processes</p> <p>xxiii) using straightforward scientific evidence to answer questions or to support their findings</p>	
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Art

Autumn

Learn about a significant artist – Turner



Painting British Landscapes

Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials –pencils/paint –Sketching Flowers

Spring

Create sketch books to record their observations and use them to review and revisit ideas

Summer

Spirituality through art



Literacy and RE link

Computing

This document details the computing & ICT “units” teachers are expected to cover in Y2.

It is NOT intended that each activity should take half a term. Some units may be effectively complete within a few weeks while continuing for a longer period with another unit might be productive / appropriate. Teachers should decide on duration, when they will deliver these activities, and how they will integrate with other subjects & topics.

National Curriculum Programme of Study for KS2:

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- 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
- 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
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Programming / Coding

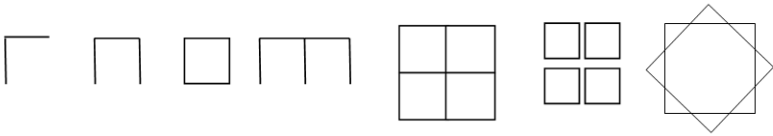

Learning Objectives: Skills, Knowledge & Understanding

- design, write and debug programs that accomplish specific goals
- solve problems by decomposing them into smaller parts
- use sequence and repetition in programs;

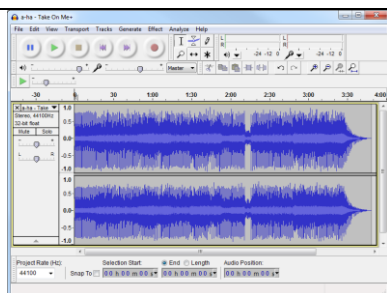
Activity 1) (1-3 sessions) Use Purple Mash 2Code.

(Levels = [Chimp](#) / Gibbon / Gorilla)

- First check with Y3 where the children got to last year. This is likely to vary from child to child. It should also be recorded in Purple Mash’s online teacher area: **2Lasso**
- If any children are new to the school they will need to start at 2Code, Chimp level; “Fun with Fish” and work through most units.
- There would be no harm in recapping some of last year’s work but attempt to finish Chimp and Gibbon levels. Some pupils should make a start on Gorilla level.

<ul style="list-style-type: none"> Understand the concept and advantages of using a REPEAT command (or LOOP) Understand that <i>prediction, trial and error are important</i> when controlling devices to achieve a specific outcome. 	<ul style="list-style-type: none"> Each new activity introduces a new code block & includes: <ul style="list-style-type: none"> A video tutorial, 2 or 3 coding challenges, a debugging task free coding where children can switch between coding & design mode. <p>For overview of Purple Mash 2Code Chimp level, click here</p> <p>Activity 2) (3-5 sessions) Use J2e, J 2Code LOGO Level 3</p> <p>The LOGO program simply draws straight lines according to your programmed instructions. The emphasis is on geometric shapes & patterns and rotational symmetry. Angles, shapes and coordinates will feature strongly, so wherever possible link it to appropriate teaching in maths. There are also links to various forms of art including Islamic art.</p> <p>Download zip folder containing: LOGO command list, LOGO learning milestones, LOGO challenge workcards</p> <p>Using J2Code LOGO (Level 3) extend the children's experience of programming by allowing a degree of open exploration but also setting specific goals to reinforce important concepts & skills and to enable ever more challenging patterns.</p> <div style="text-align: center;">  </div> <p>Online examples of LOGO patterns, where you can also see the code. (See the J2code – LOGO menu)</p>
Editing Audio	
<p>Learning Objectives: Skills, Knowledge & Understanding</p> <div style="text-align: center;">  </div>	<p>Editing audio using Audacity (needs to be installed on laptops)</p> <ul style="list-style-type: none"> Audacity allows mixing and editing of sounds on a timeline. Sound effects can be downloaded from www.findsounds.com Short pieces of music can be downloaded from www.audio.lgfl.net or www.freeplaymusic.com

<ul style="list-style-type: none"> • Select, edit, manipulate & combine sound files from a range of sources to create a composition to broadcast / publish for a specific purpose and audience. • Create own sounds and compositions to add to presentations & films. • Understand how sounds and music can affect an audience and know when it is appropriate to use sounds to aid communication. • Understand the implications of copyright / creative commons licence, and apply this to their work. 	<p>Audacity projects are essentially a list of instructions the software follows in modifying the resources that have been imported to it.</p> <p><i>Each user should have their own named Audacity folder, in which they will save all resources used in their Audacity project along with the Audacity project file itself.</i></p> <p>While working on an Audacity project, the user will Save Project As . . . in to their folder, so that they can continue with their project another time. During this time, all sound files used in their project should be kept in the same project folder. Only when the user has used their Audacity project and has exported (created) a new sound file (.wav / .mp3) can these sound resources be deleted as they are no longer needed. If you move / delete resources before creating a new sound file your project will lose the resources it refers to.</p> <p>Activity 1) (1-2 session)</p> <p>The purpose of the first session is to allow children to experiment and explore whilst becoming familiar with the Audacity interface.</p> <p>Show pupils how to:</p> <ul style="list-style-type: none"> • Find and save a sound from the above websites • Import sound they have saved in to Audacity • Use a microphone to record voice • Arrange several sounds on separate “tracks” so that they play simultaneously. • Adjust the relative volume of each track. • Re arrange sounds to play in a particular sequence. • Trim the beginning / end off of sounds to remove unwanted noise / silence. • Cut a sound in the middle somewhere and trim the parts. • Copy and paste sounds so that they can be repeated. • Do other things such as: <ul style="list-style-type: none"> ○ Sounds can be played a slower / faster speeds / played backwards. ○ Various effects can be added: eg: echo <p>Activity 2) (2-4 sessions)</p> <p>Set the children a specific task that allows some individual</p>
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exploration: eg: create a 20 second audio advert to promote a book / film / theatre show / product etc. They will need to:

1. Find and select appropriate and relevant sounds / music.
2. Save & import these sounds in to Audacity
3. Use a microphone to add effective voice / poetry / song as relevant
4. Edit the various sounds to achieve quality
5. Comply with the 20 second stipulation.
6. Export their finished sound.

The finished sound file could be imported in to J2e5 and combined with images and text, and published on the school blog site.

(see Text & Multimedia unit below)

Data Handling : Branching Database

Learning Objectives: Skills, Knowledge & Understanding

- Sort & classify items by asking simple yes/no questions
- Use a Branching / Binary tree database program to classify, sort and identify items.
- Create & use a branching

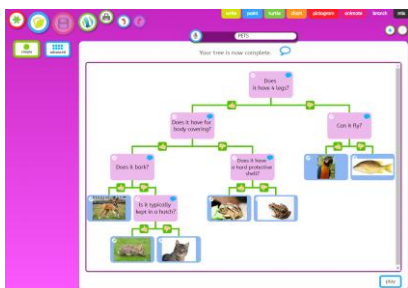
Activity 1) (1-2 sessions) Away from computer

This can be a tricky concept and requires some practice to get the hang of formulating yes / no questions. This is important & necessary before introducing the software. These activities are done AWAY from the computer:

1. **Play “Guess Who”. (You might even have the Board Game!!?)**
2. Ask all of the children in the class to stand up. The teacher mentally selects one of the pupils in the class without saying who. Pupils takes turns to ask the teacher a 'Yes / No' question about the mystery person (e.g. Is the person a boy?) The teacher responds as appropriate only with “Yes” or “No”. Children who don't match the implied criteria sit down. More questions are asked. (eg: Does she have blonde hair? Does she wear glasses? Is she in the school netball team?). More children sit down as the traits of the mystery person are established and until the pupils finally identify (NOT guess!!) which pupil was chosen.
3. **Play 20 questions.** Similar to above: the teacher (or a pupil) chooses a specific “thing” (eg: tiger / London Eye) from a category (eg: wild animals / London Tourist spots). As above the children have to ask yes/no questions (Is it . . . ??? Does it . . . ??), to establish the characteristics of the “thing” and logically eliminate other “things” until they are sure of the answer.
4. Get the children to sort & classify a group of items by asking yes / no questions. It helps if the children are familiar with the items and indeed have the objects in front of them Eg:

database to organise & analyse information to answer questions

- Identify what data is required to answer any given question.



Fruit:


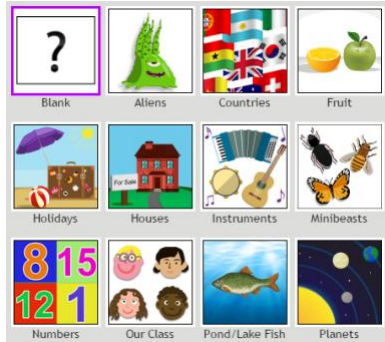
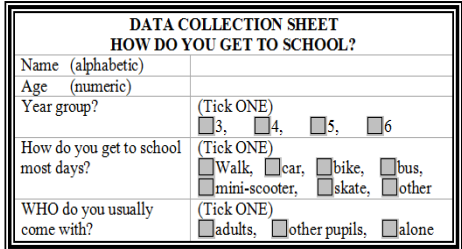
- Does it have a skin which is usually NOT eaten?
- Is it yellow?
- Does it have a stone inside?
- Does it have lots of pips / seeds inside?
- Does it ??


Activity 2) (3-4 sessions) J2data Branch

5. Choose a category (eg: animals, musical instruments, minibeasts)
6. Discuss with the children & choose a range of objects for your database (eg: if animals: lion, zebra, snake, shark, whale, eagle etc)
7. Show how you add a range of relevant images to your branching database, either from an image bank or from an in-built safe Google image search.
8. Get the children to discuss, in pairs, and brainstorm the range of questions that might be useful in differentiating the overall group of items in to two initial sub-groups.
9. Show how you then enter YES / NO questions to distinguish between the animals, initially as groups, ultimately as individual animals.

(Younger children can work simply with the images, while advanced mode allows data notes to be added to each animals image.)
10. When the database is finished you can “play” through it by asking questions to identify an animal, and if required, you can add more animals.
11. Get the children to
 - “play” a ready made database
 - add an object (animal)
 - create their own branching database
12. Discuss whether some questions are better than others, and whether there is an optimum sequence for the questions.

Be aware: if all children create a branching database on the same subject they may all be different, as the children may devise different questions, or may use the same questions in a different order. This is not a matter of right / wrong, but some branching databases seem to work better than others or appear more evenly “balanced” than

	others
Data Handling - Database	
<p>Learning Objectives: Skills, Knowledge & Understanding</p> <ul style="list-style-type: none"> Design a form for a survey / questionnaire to collect the required data. Collect data & enter it in to a database under appropriate field headings. Use the database to answer questions by searching & sorting a single field. (eg: how many children have blonde hair?) Raise further questions relevant to the data collected. Search data on more than one criterion understanding the difference between AND & OR searches. (eg: "How many children have blonde hair AND blue eyes?" and "How many children have blonde hair OR blue eyes?") Compare different graphs and evaluate their usefulness for different types of data & different purposes. Check for the reliability of data. Identify & correct inaccuracies. Recognise the consequences of inaccurate data in the real world: (eg: doctors, banks, police etc). Understand the need for data protection laws. Select relevant data and appropriate graphs to present to others perhaps as part of a multimedia presentation. 	<p>Purple Mash 2investigate</p> <p>The are 9 databases on Purple Mash and all have pdf question sheets.</p> <p>For all guides & resources, go to Purple Mash and type: "2inv" in the search panel.</p> <p>Activity1) (1-2 sessions)</p> <ol style="list-style-type: none"> Start by using the "Pond / Lake Fish" database. Remind the children of appropriate terminology: Record cards, Fields, Search, etc Click on one record card and look at the fields of data used. Show how different fields often require different types of data: text, droplist, numerical(what units?), image, sound, Show to construct a search  Use "Simple questions". These search according to one criteria. Eg: "Which fish are smaller than 13cm?" <p>Activity2) (3-5 sessions)</p> <p>Go on to design & create your own database. There are several templates in Purple Mash, or design a new one.</p> <ul style="list-style-type: none"> Start with a question and consider what data should be collected to help arrive at an answer. (eg: Is it true that children that walk to school tend to be the older children?) Design a data collection form. <p>When creating a database try to think through the type of</p>  

	<p>data you will collect. Consider the “fields” in advance and ensure you use a range of data:</p> <ul style="list-style-type: none"> ○ Typed text answers ○ Numerical only answers (what are most appropriate units) ○ Dates / Currency ○ Multi-choice answers (usually, a drop-down list) ○ Images / Sound clips / Video <p>Once the data has been collected & input, YOU should look through and explore which search questions yield clear / useful results. It might be necessary to modify / add extra data in order to facilitate meaningful searches. Compile a list of simple one criteria questions and two criteria questions using AND / OR.</p> <p>(See left column Learning Objectives for ideas)</p> <p>Leave in the odd “rogue” bit of data. Eg: if someone has mis-typed that they are 13.2m tall instead of 1.32m tall, leave it in as it provides a learning opportunity to spot suspicious data, and to reinforce the mantra: “Rubbish IN – Rubbish OUT”</p>
Text & Multimedia	
<p>Learning Objectives: Skills, Knowledge & Understanding</p> <ul style="list-style-type: none"> • Use different font sizes, colours and effects to help convey meaning. • Use page layout to select different layouts. • Import suitable text, sounds and graphics from previously saved work. (edit as appropriate). • Through self and peer assessment, evaluate each others’ work and make comments that suggest improvements. Comments should be kind, specific & helpful 	<p>Use J2e5 via the LGfL myUSO log-in</p> <p>Activity) (3-4 sessions)</p> <ul style="list-style-type: none"> • The children will have been introduced to J2e5 in Y2 / Y3. If not you will need to do this: • Show how to: <ul style="list-style-type: none"> ○ enter text / resize / change font / colour etc ○ create a succession of pages (click curled page corners) ○ insert images (embedded safe Google image search) – modify image shape / border / set as jigsaw ○ insert photos taken and modified in the J2e camera app ○ find & download sound effects from www.findsounds.com (save to shared drive on network) ○ insert these sounds to the J2e page ○ record voice using a microphone & insert on the page ○ use sound files created in Audacity unit (see above) ○ animate objects on the page as appropriate ○ import / use previously saved work from My Files in to J2e5 ○ publish files to the school blogsite 

<ul style="list-style-type: none"> • Be careful not to share online personal / private information: Locations, Contact details, photos, etc. • Develop an awareness of appropriate language & effects depending on the audience and to avoid ambiguity • Recognise the effect that their work & comments can have on others • Show respect to others they communicate with online. 	<ul style="list-style-type: none"> • Some children (EAL / SEN) may benefit from using the Wordlists. Teachers can make wordlists and share them as appropriate. • Initially children will want & need to spend time experimenting with the huge range of possibilities, but gradually should use things for a purpose and meaningful effect rather than as a gimmick. • Any work can be published to the school's blog site. Teachers must preview the work and either bin or publish. • Comments should be left on children's work by as many people as possible. Comments must also be moderated by a teacher. • Comments should be kind, specific & helpful <ul style="list-style-type: none"> ▪ • Incorporate online safety reminders (see left)
<p style="text-align: center;">Online safety</p>	
<p>Learning Objectives: Skills, Knowledge & Understanding</p> <ul style="list-style-type: none"> • recognise the effect that their messages can have on others • show respect to others they communicate with online. • recognise acceptable / unacceptable behaviour • identify a range of ways to report concerns 	<p>Activity 1) (2-3 sessions) Cyberbullying</p> <ul style="list-style-type: none"> • Watch the video: Cyberbullying: "Let's Fight it Together" Video available from here or here • Download from here a powerpoint presentation & worksheets which pose questions for the children to discuss. The Powerpoint also links to 5 follow up videos (each less than a minute long), in which the characters explain how they felt and why they did what they did. <p>Activity 2) (1 session)</p> <ul style="list-style-type: none"> • Show a scenario on the screen and get the children to discuss in pairs, what advice they would give. Although we use the SMART rules, try to get the children in the habit of thinking through the issues and thinking of possible actions which could be considered: Some scenarios linked here <p>Also see the unit on Text & Multimedia which provides other opportunities for reinforcing online safety messages.</p>

Design and technology

For each Design and Technology Project:

Design stage 2	
Design	<p>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</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>
Make	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p>
Evaluate	<p>Investigate and analyse a range of existing products</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p>
Technical knowledge	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>Apply their understanding of computing to program, monitor and control their products.</p>

Key stage	Food and Nutrition
Key Stage 2	<p>Understand and apply the principles of a healthy and varied diet</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>

Geography

Autumn

Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics

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

Spring

Key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time related to Viking and Anglo Saxon settlement

Summer

Human geography, including: economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water related to Egypt

French

Autumn

Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help

Unit 7 and Unit 8 Rigolo 1 (lgfl.net)

Spring

Speak in sentences, using familiar vocabulary, phrases and basic language structures

Unit 9 and Unit 10 Rigolo 1 (lgfl.net)

Summer

Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases

Unit 11 and Unit 12 Rigolo 1 (lgfl.net)

History

Autumn

Britain's settlement by Anglo-Saxons and Scots

- Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire
- Scots invasions from Ireland to north 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

Spring

The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor

- 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

Summer

The achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of Ancient Egypt.

Music

Key stage 2

Pupils should be taught to sing and play musically with increasing confidence and control. They should develop an understanding of musical composition, organising and manipulating ideas within musical structures and reproducing sounds from aural memory.

Pupils should be taught to:

- A. play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- B. improvise and compose music for a range of purposes using the inter-related dimensions of music
- C. listen with attention to detail and recall sounds with increasing aural memory
- D. use and understand staff and other musical notations
- E. appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- F. develop an understanding of the history of music.

P.E.

Autumn

Unit	Weeks	Fundamental Movement Skill Focus
1	Weeks 1 – 6	Cardio - Coordination – Floor Movement Patterns (FUNS Station 10) Cool Down - Static Balance - One Leg Standing (FUNS Station 1)
2	Weeks 7 – 12	Cardio - Dynamic Balance to Agility (FUNS Station 6) Cool Down - Static Balance - Seated (FUNS Station 2)

Swim competently, confidently and proficiently over a distance of at least 25 metres
use a range of strokes effectively [for example, front crawl, backstroke and breaststroke]
perform safe self-rescue in different water-based situations.

Spring

3	Weeks 13 – 18	Cardio - Dynamic Balance (FUNS Station 5) Cool Down - Coordination - Ball Skills (FUNS Station 9)
4	Weeks 19 – 24	Cool Down – Coordination with Equipment (FUNS Station 8) Cool Down - Counter Balance in Pairs (FUNS Station 7)

Swim competently, confidently and proficiently over a distance of at least 25 metres
use a range of strokes effectively [for example, front crawl, backstroke and breaststroke]
perform safe self-rescue in different water-based situations.

Summer

5	Weeks 25 – 30	Cardio - Agility - Reaction/Response (FUNS Station 12) Cool Down - Static Balance – Floor Work (FUNS Station 3)
6	Weeks 31 – 36	Cardio - Agility - Ball Chasing (FUNS Station 11) Cool Down - Static Balance – Small Base (FUNS Station 4)
<p>Swim competently, confidently and proficiently over a distance of at least 25 metres use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] perform safe self-rescue in different water-based situations.</p>		

R.E.

Autumn

Belief and practice: Hinduism

Spring

Belief and practice: Christianity

Summer

Spirituality through art