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| **CYCLE B - Year 5/6 Overview**  |
|  | **Autumn** | **Spring** | **Summer** |
| Enrichment SchoolExperiences | Lancaster Castle – linked to Crime and Punishment (History) |  |  |  | Lancaster Slave Trade Trail Route | Outdoor Experience Trip – Ski TripResidential trip |
| **English** | **FICTION**Street Child linked to History unit - Crime and Punishment**GRAMMAR SKILLS**using **expanded noun phrases** to convey complicated information conciselyusing **semicolons, colons or dashes** to mark boundaries between independent clausesuse **synonyms and antonyms**.**NON FICTION**On the Origin of Species linked to Science Unit - (Evolution & Inheritance) | **FICTION**There’s a Boy in the Girls Bathroom.  **GRAMMAR SKILLS**recognise and use a variety of **layout devices** to organise contents on the page.develop children’s awareness of the conventions of punctuation when using **bullet points** | **POETRY**The Highwayman**GRAMMAR SKILLS**recognise the basic features of **formal/impersonal** writing and to see examples of the **subjunctive** in very formal speech and writingdevelop an awareness of the **active and the passive voice** and how it affects presentation of information | **FICTION**MacbethJourney back to Freedom(stories set in different countries)linked to History unit on slave trade in Summer 1**GRAMMAR SKILLS**to revise and deepen their understanding of the differences between **formal and informal vocabulary** in speech and writing. To increase their awareness of when one might be more appropriate than the other | **FICTION** SATs Prep - for assessmentAlmaThe Robber who was Hurt **GRAMMAR SKILLS**develop their knowledge of when **hyphens** are used to avoid confusion and ambiguity | **FICTION**Broken**GRAMMAR SKILLS**develop their ability to recognise and use a wider range of **cohesive devices** to link ideas across paragraphs**POETRY**Running on Empty |
| **Maths** | **Number: Place Value** * To represent numbers to 10,000 in different ways
* To represent numbers to 100,000 on place value charts and numberlines
* To be able to read, write and represent numbers to 1,000,000
* To be able to read, write and represent numbers to ten million in different ways
* To be able to compare and order whole numbers up to ten million
* To be able to round numbers to the nearest 10, 100 and 1000
* To be able to round numbers within ten million
* To be able to count backwards and forwards through zero

**Number: Addition and Subtraction, Multiplication and Division*** To be able to add whole numbers with more than 4-digits
* To be able to subtract numbers with more than 4-digits
* To use the inverse operation for addition and subtraction
* To solve multi-step addition and subtraction problems
* To be able to add and subtract integers
* To be able to multiply a 4-digit number by a 1-digit number
* To be able to multiply 2-digits using the ‘area model’
* To be able to multiply a 2-digit number by a 2-digit number
* To be able to multiply a 3-digit number by a 2-digit number
* To be able to multiply up to a 4-digit number by a 2-digit number
* To be able to divide a 4-digit number by a 1-digit number
* To be able to divide with remainders
* To be able to use the short division method
* To be able to divide using knowledge of factors
* To divide a 3-digit number by a 2-digit number (without remainders) using long division
* To divide a 4-digit number by a 2-digit number (without remainders) using long division
* To use long division where answers have remainders
* To know that factors of a number multiply together to give that number
* To be able to find common factors of two numbers
* To be able to find common multiples of numbers
* To work out whether or not numbers up to 100 are prime
 | **Number: Addition and Subtraction, Multiplication and Division continued*** To explore the relationship between square and cube numbers
* To understand that the order of operations within a calculation affects the answer
* To be able to use efficient mental calculations and sensible estimations
* To be able to use reasoning and apply understanding of commutativity and inverse operations

**Number: Fractions*** To explore equivalent fractions using models and concrete representations
* To use understanding of the highest common factor to simplify fractions
* To be able to convers improper fractions to mixed numbers
* To be able to convert mixed numbers to improper fractions
* To be able to identify where fractions belong on a numberline
* To be able to compare fractions where denominators are not multiples of the same number
* To be able to compare fractions by finding a common numerator
* To be able to add and subtract fractions where the denominators are multiples of the same number
* To be able to add and subtract fractions where the denominators are not multiples of the same number
* To be able to add two fractions where one or both are mixed numbers or improper fractions
* To be able to add mixed numbers
* To be able to subtract proper fractions from mixed numbers
* To be able to subtract mixed numbers
* To be able to solve problems that involve adding and subtracting fractions and mixed numbers
* To be able to fractions and mixed numbers by integers
* To use concrete and pictorial representations to multiply fractions
* To be able to divide fractions by integers
* To be able to divide fractions where the numerator is not a multiple of the integer
* To be able to use the four operations when calculating with fractions
* To be able to calculate a fraction of an amount
* To be able to find the whole amount from the known value of a fraction

**Geometry: Position and Direction*** To be able to read and plot coordinates in the first quadrant
* To be able to read and plot coordinates in all four quadrants
* To use knowledge of coordinates and positional language to translate shapes in all four quadrants
* To be able to reflect shapes in all four quadrants

**Consolidation** | **Number: Decimals*** To be able to read and write decimal numbers with up to two decimal places and know the value of each digit
* To develop an understanding of thousandths
* To understand numbers with up to three decimal places
* To be able to multiply numbers with up to three decimal places by 10, 100 and 1000
* To be able to divide decimals by 10, 100 and 1000
* To be able to multiply decimals in the context of money and measures
* To be able to divide decimals using knowledge of sharing and grouping
* To solve division problems where the answer has up to 2 decimal places
* To convert decimals into fractions
* To investigate efficient methods to convert fractions to decimals

**Number:** **Percentages*** To know that per cent relates to the number of parts per hundred
* To convert fractions into percentages
* To understand the difference between tenths and hundredths and their equivalent percentages
* To convert between fractions, decimals and percentages to order and compare them
* To be able to find percentages of amounts
* To explore different methods for finding percentages of amounts
* To missing whole or missing percentage when the other values are given

Number: Algebra* To explore simple one-step function machines
* To explore simple two-step function machines
* To be able to form expressions based on function machines
* To be able to substitute into a simple expression to find a particular value
* To be able to substitute into familiar formulae for area and volume
* To use algebraic notation to form one-step equations
* To solve simple one-step equations involving the four operations
* To solve simple two-step equations involving the four operations
* To consider what values a pair of variables can take

To find possible solutions to equations which involve multiples of one or more unknown | **Measurement: Converting Units** * To read, write and recall all metric measurements for length, mass and capacity
* To use skills of multiplying and dividing by 10, 100 and 1000 to convert between units of length, mass and capacity
* To use and apply conversion skills to solve measurement problems in context
* To be able to find approximate conversions from miles to km and from km to miles
* To be able to convert between metric and imperial measurements

Measurement: Perimeter, Area and Volume* To find and draw rectilinear shapes that have the same area
* To calculate the area and perimeter of rectilinear shapes
* To work out the area of triangles by counting
* To calculate the area of right-angled triangles
* To find the area of any triangle using a formula
* To calculate the area of parallelograms
* To know that volume is the amount of solid space something takes up
* To know that volume is the space occupied by a 3-D object
* To use the formula *(l x w x h)* to calculate the volume of cuboids

**Number: Ratio*** To know that ratio shows the relationship between two values
* To use objects and diagrams to compare ratios and fractions
* To use a colon to express ratios
* To be able to calculate ratios
* To be able to draw 2-D shapes to a given scale factor
* To find scale factors when given similar shapes

To solve problems involving ratio and proportion | **Statistics*** To be able to read and interpret
* To be able to draw line graphs
* To be able to read and interpret line graphs to solve problems
* To illustrate and name parts of circles using the words radius, centre and circumference confidently
* To be able to interpret pie charts
* To interpret pie charts with percentages
* To be able to draw a pie chart using a protractor
* To apply addition and division skills to calculate the mean average in a variety of contexts

**Geometry: Properties of Shape*** To be able to measure angles in different orientations
* To draw lines to the nearest millimetre and draw angles of a given size
* To know that there are two right-angles on a straight line and four right angles around a point
* To calculate missing angles on straight lines
* To know that there are 360o in a full turn
* To be able to calculate missing angles
* To recognise that vertically opposite angles share a vertex and that they are equal
* To know that the interior angles of a triangle add up to 180o
* To use knowledge of properties of triangles to reason about angles
* To be able to solve missing angle problems involving triangles
* To know that angles in any quadrilateral add up to 360o
* To explore interior angles in polygons
* To be able to draw shapes accurately on different grids
* To use knowledge of 2-D and 3-D shapes to identify three-dimensional shapes from their nets
 | **Consolidation and themed projects** |
| **Science** | **Evolution and Inheritance****Everything Changes**The children build on their knowledge of living things and how they are adapted to particular environments. They are introduced to the idea that variation in organisms can result in the species becoming better adapted to its environment and that the process of natural selection, over a long period of time, leads to evolution. Children learn about how inherited characteristics are passed on from parents to offspring and that environmental variables also affect how organisms look and behave. They explore the process of selective breeding, through which humans can select particular characteristics in different plants and animals to meet specific requirements. Children analyse fossil records, which show that organisms have changed over millions of years and that many have become extinct.  | **Light****Light up Your World**Children develop a more detailed understanding of mirrors and the reflections that they form. They are introduced to ray diagrams that can be used to represent the behaviour of light. They use these diagrams, together with the fact that light travels in straight lines, to explain the formation of shadows and how their size and shape can be affected. They explore refraction in a number of contexts to see how light does not always appear to travel in straight lines.  | **Animals incl Humans****The Body Pump**Children learn about the human circulatory system and how it enables their bodies to function. They find out about the main parts of the circulatory system: the heart, blood vessels (arteries, veins and capillaries) and blood, and how these work together to deliver oxygen and nutrients to every part of the body. They will discover how the heart works, the main components of blood and the function of the different types of blood vessels. They will also learn about how water is transported through the body and develop their understanding of the importance of water to human health. | **Electricity****Dander! Low Voltage**Children develop their understanding of electrical circuits. They construct circuits with an increasing number of components and contrast the effects this has on the function of the components. The children learn to use the recognised electrical symbols to record circuits, particularly as the circuits become more complex.  | **Living Things and their Habitats****The Nature Library**Children will build on their knowledge of living things and deepen their understanding of why and how organisms are classified. They will explore the process of classification in some detail and how it differs from, but relates to, the identification of living things. Children will become aware of the types and characteristics of organisms that belong in each of the five kingdoms of living things (animals, plants, fungi, bacteria and Protista) and the major sub-groups the kingdoms include.  | **Animals incl Humans****Body Health**Children learn about how to keep their bodies healthy and how their bodies might be damaged. The focus is on lifestyle choices that humans make, including diet, exercise and drug use, and how these are informed by scientific evidence. They will develop a deeper understanding of what constitutes a healthy diet, through exploring food groups and how the body uses them. Children will explore the effects of exercise on the body and develop their understanding of the circulatory and respiratory systems as they investigate the effects of exercise on the pulse and its recovery rate. Children will have the opportunity to find out about how drugs help us as well as cause us harm.  |
| **Computing** | **Media - PowerPoint Presentations**To create a simple presentation. To create shapes.To create a hyperlink to another slide.  To use slide transitions insert audio and video files (where possible) To record audio onto a slide. To create simple slide templates.To copy and organise slides as required.To use animations to introduce objects to a slide. To find out which audio and video formats work in a particular presentation application. To set when the audio or video plays. To evaluate the layout of presentation slides effectively.**Media -Photography** To be able to use an IPAD or camera to capture images.To explain that digital images can be changedTo change the composition of an imageTo describe how images can be changed for different uses To make good choices when selecting different tools.To recognise that not all images are realTo evaluate how changes can improve an image. | **Animations**To explain that animation is a sequence of drawings or photographs.To relate animated movement with a sequence of images.To identify the need to work consistently and carefully.To review and improve an animation.To evaluate the impact of adding other media to an animation. | .**Quizzing**To create a picture-based quiz for young children. To learn how to use the question types within 2Quiz. To explore the grammar quizzes. To make a quiz that requires the player to search a database. To make a quiz to test your teachers or parents. Are you smarter than a 10- (or 11-) year-old? | **Using Search Technologies & Word Processing**To locate information on the search results page. To use search effectively to find out information. To assess whether an information source is true and reliable.To know how search results are selected and ranked.To be able to efficiently research and gather information for a specific task.To be discerning in evaluating digital content. | **Data – Excel Spreadsheets** To know what an Excel spreadsheet looks like. To navigate and enter data into cells. To introduce some basic data formulae in Excel for percentages, averages and max and min numbers. To demonstrate how the use of Excel can save time and effort when performing calculations. To use a spreadsheet to model a real-life situation. To demonstrate how Excel can make complex data clear by manipulating the way it is presented. To create a variety of graphs in Excel. | **Coding – 2Code B**To review good planning skills. To design programs using their choice of objects, attributing specific actions to each using their new programming knowledge. To use variables within a game to keep track of the properties of objects.To review the use of number variables.To explore text variables.To use functions and understand why they are useful.To debug a program and organise the code into tabs. To organise code into functions and Call functions to eliminate surplus code in the program.To use flowcharts to test and debug a program. To create a simulation of a room in which devices can be controlled.To explore how 2Code can be used to make a text-based adventure game |
| **History / Geography** | **HISTORY****Crime and Punishment**The children journey through British history as they discover how crime and punishment has changed throughout the ages. Beginning with the Romans and travelling right through to the present day, the children will discover how changes in society create changes in the kind of crimes that are committed, as well as the ways in which they are punished. Children will develop a sense of justice and equality | **GEOGRAPHY****Exploring our local area**How do my local area and my region fit into the wider world?Can I identify and locate the main features of my region?How might our region meet people’s needs?Fieldwork – Is this a place fit for people?How can I create a needs map of the places I have visited?How does our region meet people’s needs? | **HISTORY** **Shang Dynasty**The children will use their historical enquiry skills to find out what the Bronze Age was like in China, consulting ancient history books and archaeological finds to compare evidence and draw conclusions about a wide range of features. | **GEOGRAPHY****North America (Rockies)** Where is North America and what is it like?Where and what is the United States of America? Can you find a North American country that is closely linked to a country in Europe?What are the Rockies like?What happened when Mount St Helens erupted? Is it ever safe to live near a volcano like Mount St Helens?Which US state would I like to live in and why?How does New York compare with Lancaster? | **HISTORY****Aspect of British History beyond 1066 – ‘A Lancashire Slave****Ship called Hope’/ The Transatlantic Slave Trade**The children will find about The Transatlantic Slave Trade and its links to Lancashire in the past. They will learn about what life was like for enslaved people in the past. They willfind out about how significant people, events and changes to laws led to the abolition of slavery over time. | **GEOGRAPHY****Earthquakes**Why do earthquakes occur?What can we learn from some famous earthquakes?Why are some earthquakes bigger than others?How do earthquakes affect people and places?What help do people need before, and after an earthquake?What could you do if an earthquake happened? |
| **Art / DT** | **ART: Printing*** Design and create images which use 3 coloured overlays
* Use lino (or lino substitute) to cut away areas to create a relief printing block
* Learn about ‘registration’ of printing blocks to ensure pattern matching
* Add to printed images by using pens / glitter etc to create a multi-media image
* Create repeating printed patterns that tesselate
* To evaluate their own work and that of others using the language of art. To be able to express preferences explaining their thinking and suggesting improvements and relating their work to that of other artists
 | **DT: Structures- Marble Runs*** 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 and prototypes
* select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
* select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities
* investigate and analyse a range of existing products
* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
* apply their understanding of how to strengthen, stiffen and reinforce more complex structures
* understand and use mechanical systems in their products [for example, levers and linkages]
 | **DT: Food- Pasta Bakes*** Prepare food products taking into account the properties of ingredients and sensory characteristics.
* Weigh and measure using scales.
* Select and prepare foods for a particular purpose.
* Work safely and hygienically.
* Show awareness of a healthy diet (using the eatwell plate).
* Use a range of cooking techniques.
* Know where and how ingredients are grown and processed.
* Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc.
 | **ART: Collage*** To use a craft knife to cut, score and bend paper or card (under supervision) to create 3D effects in collage
* To experiment with mixed media – adding pen or paint to a collage
* To use visual information collected in sketchbooks as a source of inspiration for a personal collage work
* To study the collage work of Picasso, and develop a rudimentary understanding of cubism – guitar and violin
* To create a collage in the style of Picasso
* To evaluate their own work and that of others using the language of art. To be able to express preferences explaining their thinking and suggesting improvements and relating their work to that of other artists
 | **DT- moving vehicles*** Mechanical & Electrical Systems and ICT.
* Develop a technical vocabulary appropriate to the project.
* Use electrical systems such as motors.
* Program, monitor and control using ICT.
 | **ART: 3D & Sculpture*** To use newspaper and sellotape to create a basic model, then papier mache or use Mod Roc over the top to create smooth lines / detail as required
* To create slab structures with leather hard clay, such as boxes or houses, joining slabs with cross-hatching and smoothing away excess slurry
* To carve 3D designs from leather hard clay or soap
* To use wire to create forms which can be covered with Mod Roc if desired
* To evaluate their own work and that of others using the language of art. To be able to express preferences explaining their thinking and suggesting improvements and relating their work to that of other artists
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| **RE** | **Christianity** (Church)Christian rites of passageDenominational differences | **Hindu dharma**ReincarnationKarmaThe 4 ashramas | **Islam**The UmmahHajj | **Christianity** (Jesus)Holy WeekThe EucharistDenominational differences | **Buddhism**The Buddha The Four Noble TruthsThe Eightfold path | **Christianity** (God)SalvationForgiveness |
| **PSHE** | Attraction to others; romantic relationships; civil partnership and marriage.Recognising and managing pressure; consent in different situations.Expressing opinions and respecting other points of view, including discussing topical issues. | Valuing diversity; challenging discrimination and stereotypes.Evaluating media sources; sharing things online.Influences and attitudes to money; money and financial risks. | What affects mental health and ways to take care of it; managing change, loss and bereavement; managing time online.*Human reproduction and birth, increasing independence, managing transition (Y6 content only)* Keeping personal information safe; regulations and choices; drug use and the law; drug use and the media. |
| **PE** | **Dance- Robin Hood**To explore the characters of different characters.To convey the emotions, mood and feelings of the characters in the story.To create sequence using props showing a conflict between contrasting characters.To link sequences to produce a complete story dance. | **Gymnastics**To demonstrate counter balance and counter tension paired balances using apparatus.To create a gymnastic sequence with counter balances and counter tension in a group.To create a gymnastic sequence with counter balances and counter tension with a partner.To demonstrate paired and group counter balances in unison.To create a sequence of gymnastic actions, paired and group balances | **Badminton**To demonstrate a forehand and backhand shot with some consistency.To direct the shuttlecock reasonably well to their partner to continue a rally.To demonstrate a simple tactic in a net type game (i.e. To be able to hit a shuttlecock away fromtheir partner.)To play the game for the core task and incorporate tactics to score points. | **Invasion Games- Rugby**To pass and catch rugby ball with consistency, accuracy and control. To make decisions on when to pass the ball in a game situation.To apply simple attacking and defending tactics when playing a rugby-type game. | **Orienteering**To demonstrate how to “set or “orientate” a map when moving around a simple course.To demonstrate how to get around a simple course using the 8 points of a compass.To find the correct control marker using a map during a score event.To record answers accurately.To navigate to a control marker during a score event.To make decisions about which control markers to visit in the time allowed. | **Net & Wall - Tennis**To demonstrate a forehand and backhand shot with some consistency.To direct the ball reasonably well to their partner to continue a rally.To demonstrate a simple tactic in a net type game (i.e. To be able to hit a ball away from their partner.)To play the game for the core task and incorporate tactics to score points. |
| **Invasion Games-Hockey**To show passing a ball to a teammate using a hockey stick.To demonstrate dribbling and shooting a ball using a hockey stick. To apply simple attacking and defending tactics when playing a hockey type game.To play a role in a competitive modified game | **Creative Games**To dribble a ball.To pass and receive a pass using a variety of skills.To select and apply appropriate tactics when playing different invasion games.To create a football type game and select and apply tactics to outwit an opponent.To work as a team to solve a tactical problem through designing a unique invasion game.To adapt an invasion game to include positions and attacking/defending options.  | **Invasion Games- Netball**To demonstrate passing and catching a netball with consistency, accuracy and control.To demonstrate a shoulder pass.To shoot a netball with some accuracy. To make decisions on when to pass the ball in a game situation.To apply simple attacking and defending tactics when playing a netball-type game. | **Striking and Fielding- Cricket**To catch a ball when fielding.To strike a ball with a bat off a tee.To demonstrate an overarm throw when fielding a ball.To explain where to strike a ball in a game. To make a definite choice of where to strike the ball.To demonstrate bowling underarm with accuracy in a game.To strike a ball with a bat.To use tactics in a cricket type game. | **Athletics**To perform running techniques for short and long distances.To perform a pull and push throw. To take off and land one foot to one foot (same and other).To develop running for a distance.To take off and land using a combination of jumps.To perform a sling and heave throw.To develop running techniques at different speeds.To take off and land using a hop, step and jump.To take off part in an athletics event and recording times and distances. | **Striking and Fielding- Rounders**To catch a ball when fielding.To strike a ball with a bat off a tee.To demonstrate an overarm throw when fielding a ball.To explain where to strike a ball in a game. To make a definite choice of where to strike the ball.To demonstrate bowling underarm with accuracy in a game.To strike a ball with a bat.To use tactics in a rounders game. |
| **Music** | **Happy**Copy back using instruments. Use 1 note: D. Question and Answerusing instruments. Use 1 note in your answer: D. Take it in turns toimprovise using 1 note: D | **Performance** A Christmas production will take place and be shared with the parents. | **A New Year Carol**Benjamin Britten’s music and coverversions. Learn to clap some of the rhythms used in the song.Learn some musical phrases that youwill sing in the song. Copy back using instruments. Use 2 notes: A and G. Question and Answer using instruments. Use 2 notes in your answer: A and G. Take it in turns to improvise using 2 notes: A and G. | **You’ve got a friend**The music of Carole King. Rhythm and PitchCopy back and Question andAnswer. Copy back usinginstruments. Use 1 note: A. Question and Answer using instruments. Use 1 note in your answer: A. Take it in turns to improvise using 1 note: A | **Music and Me**Being happy! Rhythm and Pitch Copy back and Question and Answer. Copy back using instruments. Use 3 notes: A, G and B. Question and Answer using instruments. Use 3 notes in your answer: A, G and B. Take it in turns to improvise using 3 notes: A, G and B | **Reflect Rewind Replay**This is a consolidation unit of all the skills and knowledge learnt in the previous units during the year. It will be based around classical music and will provide a good end of year summary of all learning that has taken place. |
| **MFL** | **Phonics 3&4****Do you have a pet?** | **Family** | **At the tearomm****At the café****At the restaurant** | **What is the weather** | **The Olympics** | **Planets** |