

REAL PROJECTS



R rigorous

E engaging

A authentic

L learning



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A nature trail of children's poems and art work with QR codes which link to children's story telling video.



ESSENTIAL
QUESTION

If pictures could speak what would they say?

Term: Summer 2021

Class: Indigo, Violet and Cobalt

Trips/Experiences:

Experts: Andrew Segal
Joe (Morrab gardens)

Home Learning

Highlight features of a newspaper report.
Plan a headline for newspaper report,
Highlight features of poem.

Learn a poem -

Sumdog
Seesaw

Literacy:

Driving text: Tuesday - David Wiesner

Plan interview questions then ask them to people around the school. Make notes on what is said. They can video an interview. As a class collect evidence from the incidence.

Looking at a range of news reports and using Andrew Segal as an expert.
Create a rubric.

Oracy - report on the incident.

Write a newspaper report - using evidence from above. With rubric.

Texts:

Tuesday by David Wiesner

Toad Rage - Morris Gleitzman

Animals of Farthing Wood - Colin Dann

Maths:

Follow RTPs to ensure coverage.

Fractions - convert mixed numbers to improper fractions and vice versa.

Add and subtract fractions.

Find equivalent fractions and decimals.

Music - Charanga - follow the scheme for Lean on me.

Finding the pulse in music and learning to sing in groups - in unison and 2 parts. .

Playing and improvising using instruments.

Learning notation C F E G.

Songs include - Lean on me, He still loves me, Shackles, Amazing Grace, Ode to joy
Symphony number.

Outdoor learning:

Mini Outcome: Spoken report on the incident (from the book Tuesday).



Launch Events

Lily pads and 'slime' in classroom 'create disaster zone (each Wednesday morning - after Tuesday night's events.

Andrew Segal - journalist - expert to help with techniques for telling a report.

PSHE/ computing -E- safety - how to use responsibly and safely - screen time life wise. The Digital World and link to Sleep. Think you know.

Jobs:

If pictures could speak what would they say? Range of pictures that they need to write the text for the picture.

Animal fact file - double page spread

RE:

Science -

Electricity - What is electricity? What do you need to create a circuit - children to create circuits and look at why some don't work.

To do an 'electrical' walk around school to find mains and battery operated items.

To test materials in a circuit to find out whether they are conductors or insulators (eg pencil, spoon, coins, teabag etc).

To create switches using knowledge of conductors and insulators.

To plan an investigation on how to change the brightness of the bulb.

PE: Arena SOW

Some children swimming - indigo children not been seen year 2/3. Target children that need 'top up' sessions.

Athletics - Control a take-off and landing in long jump/ high jump.

Use a range of throwing/ jumping and running.
Demonstrate strength and flexibility.

Literacy:

Story board their story.

Story telling techniques such as 'barebones'.

Use experts such as Ellie Baker and Tracy.

Write the sequel to the story.

The book has pigs in - but they could choose any animal.

Texts:

Tuesday by David Wiesner

Toad Rage - Morris Gleitzman

Animals of Farthing Wood - Colin Dann

Trips/Outdoor learning

Morrab Gardens

Outdoor spaces at school - eg pond

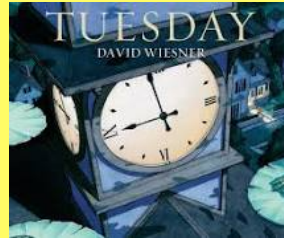
Research our environment and what animals live around.

Jobs:

History - Create a biography (job) - choice of famous person eg David Attenborough, Charles Darwin and Greta Thundberg etc.

Write instructions on how to create a bug hotel.

Mini Outcome:
Write the sequel story of what happens next Tuesday (linked to Tuesday book)



Science -Forces

To understand what weight is and that gravity is a force. Explain how craters are made from meteorites - test and measure by dropping objects (of different weights) into flour.

To identify effects of friction - plan an experiment to use a force meter to test a weighted container and record results.

Create a parachute and investigate how the size of it affects how long it takes to fall - air resistance.

Water resistance - test how long it takes for objects to fall through water - create a fair test.

Top use pulleys to lift items - record results in a table. Cut out an create gears (on resource) and create the transmissions - answers questions about how the gears work.

DT: 3 day block

. Research our environment and what animals live around. Design and make a bug hotel. Using taught skills such as tacking, pinning and drilling.

Evaluate the products.

Music - Charanga - follow the scheme for Lean on me.

Finding the pulse in music and learning to sing in groups - in unison and 2 parts. .

Playing and improvising using instruments.

Learning notation C F E G.

Songs include - Lean on me, He still loves me, Shackles, Amazing Grace, Ode to joy

Symphony number.

RE:

History:

Create a biography (job) - choice of famous person eg David Attenborough, Charles Darwin and Greta Thundberg etc.

PSHE/ computing -E- safety - how to use responsibly and safely - screen time life wise. The Digital World and link to Sleep.

Maths: Follow RTPs to ensure coverage. Compare angles and estimate angles, draw angles of a given size. Draw polygons using coordinates. Compare areas of rectangles and squares. Find perimeter of regular and irregular shapes. Identify lines on symmetry and 2D shapes and complete symmetrical patterns.

Art - Claude Monet - Waterlily art - Looking at his work and using this as a starting point for our own paintings. Learn about he layered paint - use this in our work.

Create own 3D waterlilies.

PE:

ARENA SOW

Surf day per class

Some children swimming - indigo children not been seen year 2/3. Target children that need 'top up' sessions.

Athletics - Control a take-off and landing in long jump/ high jump.

Use a range of throwing/ jumping and running. Demonstrate strength and flexibility.

Literacy:

Trip to Tangle Woods to collect word banks
Look at examples of poems (**What kind - Haiku etc?**)
Create rubric for poetry
Write own poems and illustrate beautifully - as for display and used to put QR codes on.
Teach literary devices such as; alliteration, simile, metaphor, onomatopoeia and personification.

Texts:

Tuesday by David Wiesner
Toad Rage - Morris Gleitzman
Animals of Farthing Wood - Colin Dann

Trips/Outdoor learning

Tangle woods - collecting word bank using senses etc.



Jobs: Learn a poem - oracy
Book review
Book mark - sewing
Statistical chart on wildlife around the school.

Maths: Follow RTPs to ensure coverage.
Compare angles and estimate angles, draw angles of a given size.
Draw polygons using coordinates.
Compare areas of rectangles and squares.
Find perimeter of regular and irregular shapes.
Identify lines on symmetry and 2D shapes and complete symmetrical patterns.

Science -Forces

To understand what weight is and that gravity is a force. Explain how craters are made from meteorites - test and measure by dropping objects (of different weights) into flour.
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PE: Arena SOW

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Athletics - Control a take-off and landing in long jump/ high jump.
Use a range of throwing/ jumping and running.
Demonstrate strength and flexibility.

PSHE: Sex Ed - keeping my body safe and my body changes - Lifewise.

Resources:

Ipads to scan QR codes

Art work / poems to place around the school and to scan the QR codes.

FINAL OUTCOME

A nature trail of children's poems and art work with QR codes which link to children's story telling video.

Costs:
Nil

What: A nature trail of children's poems and art work with QR codes which link to children's story telling videos and newspaper reports on the incidents.

Where: In the school grounds

When:

Adults and responsibilities:
To help create QR codes from videos

All phase adults.

Work to be displayed:

Children input:

Story telling videos
Art work and poem

Y4 Reading:

- 1. Apply knowledge of root words, prefixes and suffixes both to read aloud and understand the meaning of new words they meet.
- 2. Read further exception words, noting the unusual correspondence between spelling and sound.
- 3. Teaching should be aimed more at developing vocabulary and breadth of reading.

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Y4 Comprehension:

- 1. Listen to and discuss a wide range of fiction, poetry, plays, non-fiction and reference books and text books.
- 2. Read books that are structured in different ways.
- 3. Use dictionaries to check the meaning of words.
- 4. Discuss words and phrases that capture a readers interest and imagination.
- 5. Increasing familiarity with a wide range of books, including fairy tales, myths and legends and retelling some of these orally
- 6. Identifying themes and conventions in a wide range of books
- 7. Preparing poems and play scripts to read aloud and to perform, showing understanding through intonation, tone, volume and action
- 8. Discussing words and phrases that capture the readers interest and imagination
- 9. Recognising some different forms of poetry
- 10. Checking the text makes sense to them, discussing their understanding and explain the meaning of words in context
- 11. Asking questions to improve their understanding of the text
- 12. Drawing inferences such as inferring characters feelings, thoughts and motives from their actions and justifying inferences with evidence
- 13. Predicting what might happen from details stated and implied
- 14. Identifying main ideas drawn from more than 1 paragraph and summarising these
- 15. Identifying how language, structure and presentation contribute to meaning
- 16. Retrieve and record information from non-fiction
- 17. Participate in discussions about books read to them and read by them and those read by themselves taking turns and listen to what others say.

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Yr 5 Reading:

- 1) I can apply my growing knowledge of word families, root words, prefixes and suffixes(morphology and etymology), listed in English Appendix 1, both to read aloud and to understand the meaning of new words.

Comprehension:

- 2) I have read books and other reading material for a range of purposes.
- 3) I have an increased familiarity with a wide range of books, including books from other cultures and traditions.
- 4) I can recommend books to others and give reasons for this.
- 5) I can begin to identify and discuss themes across a range of texts.
- 6) I can make simple comparisons across texts — characters, events, etc.
- 7) I can read a wider range of poetry including learning some by heart.
- 8) I can prepare and perform poems and plays to read aloud, with variation in intonation, tone and volume.
- 9) I can skim and scan a text to find key information.
- 10) I can ask questions to improve my understanding of a text.
- 11) I can predict what may happen from details stated and implied.
- 12) I can discuss how the author’s choice of language (including some figurative language) impacts on the reader.
- 13) I can continue to draw inferences about characters and plot and justify these, beginning to refer to different parts of a text.
- 14) I can distinguish between statements of fact and opinion.
- 15) I can retrieve, record and present information from non-fiction.
- 16) I can discuss my understanding of a text providing justification for my views.
- 17) I can participate in discussions, building on my own and others’ ideas.

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Yr4 Composition:

1. Look at genre examples to identify structure, vocabulary and grammar to help me plan my own writing.
2. Discuss and record ideas using the drafting process.
3. Compose and rehearse sentences orally building a varied and rich vocabulary and range of sentence structures.
4. Organise paragraphs around a theme.
5. Develop setting, character and plot in narrative.
6. In non-narrative material, using simple organisational devices [for example, headings and sub-headings]
7. Assess the effectiveness of their own and others writing and suggest improvements.
8. Propose changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences
9. Check spelling and punctuation.
10. Read their own writing aloud, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.
11. Adapt form and style for purpose.

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Composition:

- 1) I can identify audience and purpose for writing and select the appropriate form with guidance, using models.
- 2) I can develop initial ideas, drawing on reading and research.
- 3) I can consider how authors develop character and setting in what I have read, seen and/or heard.
- 4) I can select appropriate grammar and vocabulary and know how this can change and enhance meaning.
- 5) I can describe setting and characters and use dialogue.
- 6) I can begin to build cohesion within and across paragraphs using different narrative devices.
- 7) I can use organisational and presentational devices to structure a text. E.g. subheadings.
- 8) I can critique the effectiveness of my own and others' writing, making useful and detailed suggestions for improvement.
- 9) I can use expanded noun phrases effectively.
- 10) I can use adverbial and prepositional phrases effectively.
- 11) I can ensure correct subject and verb agreement when using singular and plural.
- 12) I can mostly use consistent and correct tense throughout a written piece.
- 13) I can proof-read for any errors and make corrections based on spelling, grammar and punctuation.
- 14) I can precise longer passages.
- 15) I can use literary devices such as; alliteration, simile, metaphor, onomatopoeia and personification.

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Yr 3 and Y4 Handwriting and Presentation:

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Y4 Spelling:

1. Use further prefixes and suffixes and understand how to add to them. Check appendix 1

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239784/English_Appendix_1_-_Spelling.pdf

2. Spell further homophones

3. Spell words that are often misspelt. Check appendix 1

4. Place the apostrophe accurately in words with regular plurals and I words with irregular plurals

5. Use the first 2 or 3 letters of a word to check its spelling in the dictionary

6. Write from memory simple sentences, dictated but the teacher, that include words and punctuation taught so far

Yr 5 Spelling:

1) I can spell words with endings that sound like 'shuhs' with -tious or -ious

2) I can spell words containing the letter string -ough

3) I can spell words with silent letters - knight, doubt, lamb etc

4) I can distinguish between homophones and other words that are often confused

5) I can correctly spell the words from the year 5 word list.

6) I can convert nouns or verbs into adjectives using suffixes: -ful, -ive, -al

7) I can convert nouns or adjectives in to verbs using the suffixes: -ate, -ise, -ify, -en

8) I can create nouns using suffixes: -ity, -ness, -ship

9) I can spell words adding verb prefixes: -de, -re, and -over

10) I can use a dictionary to look up the meaning of a word

11) I can use a thesaurus

Y4 Punctuation:

1 Use capital letters, full stops, ? and ! consistently.

2 Identify and explain where punctuation is used correctly and incorrectly, e.g. , ? ! and " "

3 Commas to separate items in a list

4 Use apostrophes to indicate singular possession and for contractions.

5. Apostrophes to mark plural possession

6. Use of inverted commas and other punctuation to indicate direct speech [for example, a comma after the reporting clause; The conductor shouted, "Sit down!"]

7. Use of commas after fronted adverbials

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Grammar:

Year 5: Detail of content to be introduced (statutory requirement)	
Word	Converting nouns or adjectives into verbs using suffixes [for example, -ate; -ise; -ify] Verb prefixes [for example, dis-, de-, mis-, over- and re-]
Sentence	Relative clauses beginning with <i>who, which, where, when, whose, that</i> , or an omitted relative pronoun Indicating degrees of possibility using adverbs [for example, <i>perhaps, surely</i>] or modal verbs [for example, <i>might, should, will, must</i>]
Text	Devices to build cohesion within a paragraph [for example, <i>then, after that, this, firstly</i>] Linking ideas across paragraphs using adverbials of time [for example, <i>later</i>], place [for example, <i>nearby</i>] and number [for example, <i>secondly</i>] or tense choices [for example, <i>he had seen her before</i>]
Punctuation	Brackets, dashes or commas to indicate parenthesis Use of commas to clarify meaning or avoid ambiguity
Terminology for pupils	modal verb, relative pronoun relative clause parenthesis, bracket, dash cohesion, ambiguity

Year 4: Detail of content to be introduced (statutory requirement)	
Word	The grammatical difference between plural and possessive -s Standard English forms for verb inflections instead of local spoken forms [for example, <i>we were</i> instead of <i>we was</i> , or <i>I did</i> instead of <i>I done</i>]
Sentence	Noun phrases expanded by the addition of modifying adjectives, nouns and preposition phrases (e.g. <i>the teacher</i> expanded to: <i>the strict maths teacher with curly hair</i>) Fronted adverbials [for example, <i>Later that day, I heard the bad news.</i>]
Text	Use of paragraphs to organise ideas around a theme Appropriate choice of pronoun or noun within and across sentences to aid cohesion and avoid repetition
Punctuation	Use of inverted commas and other punctuation to indicate direct speech [for example, a comma after the reporting clause; end punctuation within inverted commas: <i>The conductor shouted, "Sit down!"</i>] Apostrophes to mark plural possession [for example, <i>the girl's name, the girls' names</i>] Use of commas after fronted adverbials
Terminology for pupils	determiner pronoun, possessive pronoun adverbial

Yr 5 Punctuation:

1) I can use capital letters, full stops, ? and ! consistently.

2) I can identify and add missing punctuation into text e.g. . , - "" ! ? : () “

3) I can use commas to clarify meaning and avoid ambiguity within a sentence

4) I use apostrophes to indicate singular and plural possession and for contractions consistently including collective noun plurals

5) I use bullet point to list information consistently.

6) I can use a colon to introduce a list.

7) I can use ellipses accurately and consistently to build tension.

8) I can use brackets, dashes and commas to indicate parenthesis.

9) I am beginning to recognise and use semi-colons, colons or dashes to mark boundaries between independent clauses.

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Maths Y4 Place value:

- I can count in multiples of 6, 7, 9, 25, 1,000
- I can find 1000 more or less than a given number.
- I can read, write an order numbers beyond 1000 and know the value of each digit.
- I can count backwards through 0 to include negative numbers.
- I can round any number up to the nearest 10, 100 or 1,000 including some decimals.
- Read roman numerals to 100 and recognise years written in roman numerals

Addition and subtraction:

- I can add and subtract numbers with up to 4 digits using written methods, such as the column method.
- Add and subtract large increasingly large numbers mentally.
- I can solve longer addition and subtraction problems and explain all the steps I took and how i worked them out.
- I can estimate and check my answers using inverse operations.
- I know all my times tables to 12 x 12

Multiplication and division:

- I can multiply 3 numbers together such as $3 \times 6 \times 9$
- I can recall multiplication facts for the 7 x table.
- I can recall multiplication facts for the 9 times table
- I can identify multiples and common factors of numbers.
- I can recognise factor pairs.
- I know prime numbers and composite numbers and recall them to 19.
- I can multiply two digit and three digit numbers by a one digit number using written methods.
- I can solve problems, including missing numbers, involving multiplication and division.

Fractions and decimals:

- I can compare and order fractions confidently.
- Identify and find equivalent fractions and represent these visually.
- I can work out fractions of numbers such as $\frac{4}{5}$ of 25 or $\frac{7}{10}$ of 700.
- I can add and subtract fractions with the same denominator.
- I can recognise and write decimal equivalents to fractions. E.g. $\frac{1}{2}$ is 0.5
- I can read and write decimal numbers as fractions.
- I can round decimals with one decimal place to the nearest whole number.
- Read, write and order numbers with up to two decimal places.
- I can write simple percentages as decimals and fractions. ie $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
- I can solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities.

Maths Y5 Place value:

- 1) I can read and write, numbers to 1,000,000 and explain the value of each digit.
- 2) I can order numbers to 1,000,000.
- 3) I can count forwards or backwards in steps of powers of ten for any given number up to 1,000,000.
- 4) I can round any whole number up to 1,000,000 accurately to the nearest 1, 10, 100, 1000, 10,000 and 100,000.
- 5) I can use negative numbers in context, and calculate across zero.
- 6) I can count forwards and backwards with positive and negative whole numbers.
- 7) I can solve number and practical problems that involve all the above.
- 8) I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Addition and subtraction:

- 1) I can add and subtract numbers with more than four digits using written methods such as the column method.
- 2) I can add and subtract increasingly large numbers mentally.
- 3) I can solve multi-step addition and subtraction problems in a range of contexts, deciding which operations and methods to use and why.
- 4) I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy

Multiplication and division:

- 1) I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- 2) I know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers
- 3) I can establish whether a number up to 100 is prime and recall prime numbers up to 19
- 4) I can multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for two digit numbers
- 5) I can multiply and divide numbers mentally drawing upon known facts
- 6) I can divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context
- 7) I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
- 8) I can solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- 9) I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- 10) I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Measurement:

- I can convert between different measurement eg km to m, hr to min.
- I can read, write and convert time between analogue and digital (12 and 24hr)
- I can measure and calculate the perimeter of simple shapes in centimetres and metres.
- I can calculate and compare the area of rectangles.
- I can estimate volume and capacity (e.g by using 1cm blocks to estimate)
- I can solve problems involving converting units of time.
- I can solve a range of problems involving measure including mass, length volume and money.

Geometry:

- I can identify 3D shapes including cubes and cuboids from 2D representations.
- I can identify acute and obtuse angles and compare and order angles by size.
- I can draw given angle accurately
- I know angles on a point, whole turn and right angles.
- I can find the co-ordinates and join up the points to create a shape.
- I can move (translate) a point on a grid by moving it either up/down or left/right

Statistics:

- I can complete read and interpret information in a range of tables, including timetables.
- I can show comparisons and continuous data presented in a line graph.

Statistics:

- 1) I can read and interpret information in a range of tables and representations including timetables.
- 2) I can solve comparison, sum and difference problems using information presented in a line graph.

Fractions, decimals and percentages:

- 1) I can compare and order fractions whose denominators are all multiples of the same number
- 2) identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- 3) I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $5 \frac{2}{4} + 5 \frac{4}{4} = 5 \frac{6}{4} = 1 \frac{5}{1}$]
- 4) I can add and subtract fractions with the same denominator and denominators that are multiples of the same number
- 5) I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- 6) I can read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]
- 7) I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- 8) I can round decimals with two decimal places to the nearest whole number and to one decimal place
- 9) I can read, write, order and compare numbers with up to three decimal places
- 10) I can solve problems involving number up to three decimal places
- 11) I can recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- 12) I can solve problems which require knowing percentage and decimal equivalents of $2 \frac{1}{4}$, $4 \frac{1}{5}$, $5 \frac{2}{5}$, $5 \frac{4}{4}$ and those fractions with a denominator of a multiple of 10 or 25.

Measurement:

- 1) I can convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- 2) I can understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- 3) I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- 4) I can calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes
- 5) I can estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water]
- 6) I can solve problems involving converting between units of time
- 7) I can use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Geometry:

- 1) I can identify 3D shapes including cubes and cuboids from 2D representations.
- 2) I know angles are measured in degrees and can recognise, estimate and compare acute, obtuse, reflex and right angles.
- 3) I can draw given angles and measure in degrees.
- 4) I can identify angles at a point and one whole turn.
- 5) I can identify angles at a point on a straight line, and $1/2$ a turn and other multiples of 90 degrees.
- 6) I can find missing angles in rectangles.
- 7) I can use the properties of rectangles to deduce related facts and find missing lengths and angles
- 8) I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
- 9) I can identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

4 working scientifically - skills

Ask relevant questions and using different types of scientific enquiries to answer them
Set up simple practical enquiries, comparative and fair tests
Make careful observations and take accurate measurements, using different equipment
Gather, record, classify and present data in a variety of ways
Record findings using scientific language, diagrams, keys, and charts
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
Identify differences, similarities or changes related to simple scientific ideas and processes
Use straightforward scientific evidence to answer questions or to support their findings

Y4 Living things and their habitats:

Group living things in a variety of ways
Use classification keys to help group, identify and name living things
Recognise that environments can change and can pose risks to living things

Y4 Animals including humans

Describe the simple functions of the basic parts of the digestive system in humans
Identify the different types of teeth in humans and their simple functions
Construct and interpret food chains, identifying producers, predators and prey.

Y4 States of Matter:

Compare and group materials together, according to whether they are solids, liquids or gases
Observe that some materials change state when they are heated or cooled and measure/research temperature
Identify the part played by evaporation and condensation in the water cycle

Y4 Sound:

Identify how sounds are made, associating with something vibrating
Recognise the vibrations from sounds travel through a medium into the ear.
Find patterns between the pitch of a sound and features of the object that produced it
Find patterns between the volume of a sound and the strength of the vibrations that produced it
Recognise that sounds get fainter as the distance from the sound source increases.

Y4: Electricity

Identify common appliances that run on electricity
Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
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
Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
Recognise some common conductors and insulators, and associate metals with being good conductors.

Yr5 Working scientifically:

- planning different types of scientific enquiries to answer questions including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments

Life processes:

- **Living things and their habitats**
- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals
- **Animals, including humans**

Materials:

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- know that some materials will dissolve in liquid to form a solution, and describe
————— how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

Forces:

- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a

• Earth and Space

- describe the movement of the Earth and other planets relative to the sun in the solar system
- describe the movement of the moon relative to the Earth
- describe the sun, Earth and moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun

Art:
Materials

Begin to experiment with different tools for line drawing.
Create and make designs with applique onto fabric.
Decorate fabric using different materials to finish.
Introduce tints and stains to paint work.
Use more hardwearing materials (card, cardboard, wood) for creating 3D structures.
Expression and Imagination:
Talk about their intention and how they wanted their audience to feel or think.
Techniques:
Mixing tertiary colours (browns, neutrals, flesh.)
Build up painting techniques (resist work, layering, and scraping.)
Use pencils to create tone and shade and intricate marks when drawing.
Use joining techniques such as slotting, tying, pinning and sewing when creating 3D structures.
Artists:
Begin to develop an understanding of the work of an architect to tie in with work on 3D structures and sculptures.
Have an in-depth knowledge of one famous artist in time and be able to link their own work to them.
Be exposed to great pieces of art and craftsmanship through visits, visitors and experiences.

Art: Y5
Materials

Experiment with working on different surfaces.
Different textures (laminating, modroc, collage.)
Natural materials to create sculptures.
Expression and Imagination:
Use Art to express an emotion. Why have they chosen the materials and techniques that they have?
Techniques:
Use drawing techniques to introduce perspective. (Drawing from above and below, near/far.)
Begin to experiment with the techniques of different artists.
Practice skills to create different surfaces.
Develop sculpture techniques by manipulating natural materials to create a structure.
Artists:
Use the work of a famous artist as a stimulus for their own work.
Use other artists work as a basis for critique.
Research and develop the techniques of other artists to use in own work.
Be introduced to the work of great designers through history.

DT:

Use research and develop design criteria to design functional and appealing products that are fit for purpose.
Consider different ways in which they can creatively record their planning to engage an audience.
Use tools and equipment, including those needed to weigh and measure ingredients, with accuracy.
Join and combine a range of materials, some with temporary, fixed or moving joints.
Use investigations of existing products to inform planning of their own product.
Check their work as it develops and modify approach in light of progress.
Discuss how well their product meets the design criteria and the needs of the user.
Prototype shell or frame structures.
Strengthen frames with diagonal struts. use lolly sticks/card to make levers and linkages
Use lolly sticks/card to make levers and linkages.
Use research and develop design criteria to design innovative, functional and appealing products that are fit for purpose and aimed at particular groups or individuals.
Develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations.
Select and use tools and equipment for a range of uses. E.g. cut and shape ingredients, join fabrics, cut accurately and safely, use bradawl to mark holes, hand drill and pin and tacks during textile work.
Join and combine a range of materials and ingredients using appropriate methods. E.g. beating, rubbing in, drilling, glueing, sewing, screwing.
Show a clear understanding of the specification and use this to inform decisions.
Justify decisions about materials and methods of construction.
Evaluate products and use of information sources.
Build frameworks using a range of materials e.g. wood, corrugated card, plastic to support mechanisms.
Use linkages to make movement larger or more varied.
Incorporate motor and a switch into a model.

Computing:

Technology in the real world:
Know how to use digital tools responsibly to communicate
Use search technologies effectively and safely.

Programming
Use logical reasoning to predict errors.
Design a simple programme with a specific focus using algorithms to write the sequence.
Use sequence selection and repetition in programmes.
Detect and correct errors in algorithms and programmes.

Purposeful application
Create and implement a range of programmes to accomplish given goals.
Use technology to collect and present data and digital content.

E-Safety
Use technology safely, respectively and responsibly.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
A	Christianity TOPIC: The Old Testament: God and Human Nature (1) THEME: sinfulness/disobedience	Christianity TOPIC: The Old Testament: God and Human Nature (2) THEME: sinfulness/disobedience	Christianity TOPIC: The New Testament: The Teachings of Jesus THEME: love/the kingdom of heaven	Christianity TOPIC: The New Testament: The Teachings of Jesus THEME: love/ethics	Hinduism TOPIC: What does it mean to be a Hindu? THEME: belief vs culture	Hinduism TOPIC: The Hindu Year THEME: festivals and values
DD	Are the Biblical creation stories true?	Should we follow Biblical rules?	Does God treat people fairly in the parables of Jesus?	Should we 'love our neighbours'?	What reasons and/or evidence support belief in reincarnation?	Can religious rituals (such as Aditya Homa) make the world a better place?
AA	How do Christians today explain human suffering?	How do Christians interpret teachings from the book of Proverbs today?	How do Christians today understand Jesus' parables?	Which of the Fruits of the Spirit do Christians today find the hardest to demonstrate?	What does the family mean to Hindu's today?	Which stories of deities do Hindus like to remember today and why?
HH	Can we see God's creation, promises and our sinfulness in the world?	Can we imagine what it is like to despair of all man-made idols?	Can we put issues of fairness aside and celebrate God's openness to all who hear him?	Can I use Jesus as my role model and do a charitable act?	Can experience of Indian music, dance and drama help us to understand why Indian culture might be cherished by Hindu's living in Britain today?	How does performing rituals of Raksha Bandhan help us understand the value that Hindu's place on brother and sister-like relationships?
SS	How do people interpret the story of Noah's ark differently?	How does the story Moses and the Ten Commandments fit with the 'Bible's Big Story'?	How do your stories from you own life impact on your understanding of these parables?	How do you make sense of Jesus' teachings in the Sermon on the Mount?	What do Hindu stories communicate about God?	Which stories do Hindus celebrate at New Year and why?

PSHE: Health and Wellbeing

Begin to discuss changes which happen to the body.

Understand how bacteria and viruses affect the body and how they can be prevented.

Discuss how the body changes and how to maintain hygiene through puberty.

Know how to prevent the spread of diseases and viruses.

Relationships

Identify that behaviour choices have consequences.

Understand how to maintain a positive relationship.

Understand the nature and consequences of bullying and racism.

Begin to see their actions from a different perspective.

Know what stereotyping is.

Understand different values, traditions and customs.

Discuss differences between people such as religion, race, disability etc...

Wider World

Investigate topical issues and explore media sources. Ask and respond to questions and questions from others.

Understand roles within society and meet people to discuss these roles. Understand why it is important to care for the environment **E-SAFETY** and **DRUGS** and **ALCOHOL**

Understand rights and responsibilities and how they impact on own lives and the wider world. Justify personal opinions linked to broad topical issues. Understand decision making and the impact this has on others. Show an understanding of enterprise. Discuss how to protect the environment and advise others.

Humanities:

Geography:

Locational Knowledge

Locate on a map- Human and physical characteristics of Europe.

Locate on a map- Human and physical characteristics of countries around the world and major cities.

Place Knowledge

Study geographical similarities and differences between UK and Mexico.

Study geographical similarities and differences between countries around the world.

Human and Physical Geography

Study rivers, mountains, volcanoes and natural disasters.

Know where energy comes from.

Know about the water cycle and natural resources (where they come from) Geographical Skills and Fieldwork

Use aerial photographs, ordnance survey maps and satellite maps to support study.

Use Geographical information systems (GIS) to analyse data.

PE Y4

Gymnastics/ Athletics

Use a range of throwing, jumping and running speeds with control, accuracy and coordination.

Demonstrate strength and flexibility in movements.

Team games

Apply and explain rules and tactics of a variety of games.

Keep and control the possession of a ball.

Field with control.

Dance and movement

Refine movements to create a more complex sequence to match a purpose.

Movements are clear and fluent.

Outdoor Adventurous activities

Works collaboratively using a map to solve problems with confidence. Identify risks and advise others..

PE Y4 continued

Swimming

Immerse body in the water confidently.

Explore different strokes and use at least one basic stroke confidently, breathing properly.

If using floats, swim with a controlled leg kick.

Co-ordination and control in arm and leg movements.

Explore personal survival skills safely.

-Swim 25m by the end of Year 6

Basic skills

Throw and strike a ball with control and accuracy.

Drugs and Alcohol:

Understand legal substances and how they affect the body.

Understand peer pressure and know where to access help

Know different legal and illegal harmful substances.

Make informed choices about risks and develop strategies to deal with peer pressure.

Music:

Singing and Performing

Perform in a group and alone using voices and instruments.

Sing in a round and in canon.

Perform in a group and alone using voices and instruments creatively incorporating expression and control.

Sing in two parts including two part harmonies.

Composing

Improvise and compose music for a range of purposes controlling musical qualities.

Begin to use simple formal notation including beats in a bar.

Listening and Appraising

Begin to appreciate and understand different works and composers.

Listen to live music and evaluate impact

Listen and appraise using appropriate musical vocabulary.

Identify characteristics of a piece and repeat using voice or instrument.

Humanities:

History:

Chronological events

Beginning to think about the impact of historical events/people.

Shows some understanding and talks with some clarity about the impact of historical events.

Use of sources

Understanding the difference between primary and secondary sources.

Use a variety of reliable sources to gain a deeper understanding of Compare historical sources and suggest the validity of these.

Historical Enquiry

Generate purposeful questions.

Begin to use questions to understand significant events.

Analyse and evaluate the impact of significant people/events in history

Question why something happened and how it impacted people long term.

A detailed study of a particular famous person and their historical legacy.

Vocabulary

Language specific to topic (e.g. mummified)

PE Y5

Gymnastics/ Athletics

Control a take-off and landing.

Combine a range of running, jumping and throwing techniques.

Create a fluid sequence applying learnt skills.

Team games

Explain rules and tactics in detail.

To work in a team or alone to gain possession of a ball.

Dance and movement

When composing it is imaginative, creative and expressive.

Movements show control.

Outdoor Adventurous activities

Orientate self to solve problems, locating particular places. Adapt actions to changing situations.

Strike a ball using backhand and forehand skills. Use a variety of techniques to pass a ball

Virtues timetable

Week 1 7/9	Unity	Week 23 8/3	Generosity
Week 2 14/9	Unity	Week 24 15/3	Excellence
Week 3 21/9	Friendliness	Week 25 22/3	Self-discipline
Week 4 28/9	Cooperation	Week 26 26/4	Forgiveness
Week 5 5/10	Helpfulness	Week 27 4/5	Creativity
Week 6 12/10	Respect	Week 28 10/5	Love
Week 7 19/10	Courage	Week 29 17/5	Optimism
Week 8. 2/11	Patience	Week 30 24/5	Courtesy
Week 9 9/11	Self - confidence	Week 31 7/6	Understanding
Week 10 16/11	Enthusiasm	Week 32 14/6	Compassion
Week 11 23/11	Caring	Week 33 21/6	Joyfulness
Week 12 30/11	Thankfulness	Week 34 28/6	Loyalty
Week 13 7/12	Trust	Week 35 11/6	Tolerance
Week 14 14/12	Peacefulness	Week 36 5/7	EYFS choice
Week 4/1	Peacefulness		
Week 16 11/1	Kindness	Week 37 12/7	Phase 1 choice
Week 17 18/1	Kindness		
Week 18 25/1	Perseverance	Week 38 19/7	Phase 2 choice
Week 19 1/2	Honesty		
Week 20 8/2	Justice		
Week 21 22/2	Flexibility		
Week 22 1/3	Determination		

To