Summer Curriculum Planning

Year 6

Zzzzzzzap!

Maths

Geometry-Properties of Shapes:
Draw 2-D shapes using given dimensions and angles.
Compare and classify geometric shapes based on their properties and sizes, and find unknown angles in shapes.
Recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles.
Problem Solving:
Solve number and practical problems.
Solve multi-step addition and subtraction problems in contexts.
Solve problems involving addition, subtraction multiplication and division and a combination of these.
Solve problems involving multiplication and division including scaling by fractions and problems involving simple rates.
Solve problems involving multiplication and division including knowledge of factors and multiples, squares and cubes.
Solve problems involving number up to three decimal places.
Solve problems involving converting between units of time.
Solve problems involving calculation and conversion of units of measure, using decimals where appropriate.
Statistics:
Illustrate and name parts of circles, including radius, diameter and circumference and know how the diameter is twice the radius.
Interpret and construct pie charts and line graphs and use these to solve problems.
Calculate and interpret the mean as an average.
Investigations

English

Writing Composition:
Identify the audience for writing.
Choose the appropriate form of writing using the main features identified in reading.
Note, develop and research ideas.
Plan, draft, write, edit and improve.
Create vivid images by using alliteration, similes, metaphors and personification.
Interweave descriptions of characters, settings and atmosphere with dialogue.
Ensure correct use of tenses throughout a piece of writing.
Write cohesively within and between paragraphs
Use brackets, parenthesis, a mixture of active and passive voice, hyphens, colons and semi colons.
Transcription:
Write fluently and legibly with a personal style.
Use prefixes appropriately.
Use knowledge of morphology and etymology in spelling and understand that some words need to be learned specifically.
active and passive voice, subject and object, hyphen, synonym, colon, semi-colon, bullet points.
Presentation:
Perform compositions, using appropriate intonation and volume.

Reading
Apply knowledge of root words, prefixes and suffixes.
Read age-appropriate books with confidence and fluency.
Recommend books to peers, giving reasons for choices.
Identify and discuss themes and conventions in and across a wide range of writing.
Make comparisons within and across books.
Learn a wide range of poetry by heart.
Prepare poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience
Check that the book makes sense, discussing understanding and exploring the meaning of words in context.
Draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence.
Summarise the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.
Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.
Retrieve and record information from non-fiction.
Participate in discussion about books, taking turns and listening and responding to what others say.
Distinguish between statements of fact and opinion.
Provide reasoned justifications for views.

Science

Working scientifically: Plan enquiries, including recognising and controlling variables where necessary. Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models. Present findings in written form, displays and other presentations. Take measurements, using a range of scientific equipment, with increasing accuracy and precision. Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships and conclusions. Use test results to make predictions to set up further comparative and fair tests. Use simple models to describe scientific ideas, identifying evidence that has been used to support or refute ideas.
Light: Understand that light travels in straight lines. Use how light travels to explain that objects are seen because they give out or reflect light into the eyes. Explain why shadows have the same shape as the object that cast them, and predict the size of shadows when the position of the light source changes. Explain that we see things because light travels from a source to our eyes or from sources to objects to our eyes.
Sound: Find patterns between pitch and the features of the object which produce it. Find patterns between the volume of a sound and the strength of vibrations that produced it. Recognise sounds get fainter as distance from the sound source increases.
Electrical Circuits: Associate brightness of a lamp or buzzer volume with the number/voltage of cells used. Compare/give reasons for variations in how components functions, including bulb brightness, buzzer loudness and the on/off position of switches. Use recognised symbols in simple circuit diagrams.

Vocabulary
Circuit
Charge
Flow
Series
Parallel
Insulator
Conductor
Complete
Pitch
Monitor
Revolution

Geography

Investigate places: Collect and analyse statistics and other information in order to draw conclusions about locations.
Investigate patterns: Identify and describe significance of latitude, longitude, Equator, North/Southern Hemisphere, Tropics, Arctic/Antarctic and time zones.
Communicate geographically: Create maps of locations identifying patterns.

History **(Extended chronological study – Industrialisation and Imperial growth during the Victoria era)**

Investigate and interpret the past: Use evidence to deduce information about the past. Select suitable sources of evidence, giving reasons for choice. Use sources to form testable hypotheses. Seek out and analyse a wide range of evidence to justify claims.
World History Overview: Describe characteristic features of the past.
Understanding chronology: Describe the main changes in a period of history. Identify periods of rapid change in history, contrasting with times of little change. Understand continuity and change over time. Use dates and terms accurately in describing events.

D.T.

Food: Measure accurately and calculate ratios of ingredients to scale recipes up and down. Demonstrate a range of cooking and baking techniques.
Electronics: create circuits using a number of components.
Computing: write code to control and monitor models.
Construction: Develop practical skills to create products
Mechanics: convert rotary motion to linear using cams. Use innovative combinations of

Art and Design

Developing ideas: Develop and imaginatively extend ideas from starting points. Collect and present ideas imaginatively in a sketch book. Use the qualities of materials to enhance ideas. Spot the potential in unexpected results as work progresses. Comment on artworks with a fluent grasp of visual language
Drawing: Use techniques to add interesting effects. Use techniques to depict movement, perspective, shadows and reflection. Choose a style of drawing suitable for the work. Use lines to represent movement.
Digital Media: Enhance digital media by editing.

Music

Transcribe: Use the standard musical notation of crotchet, minim and semibreve to indicate how many beats to play. Read and create notes on the musical stave.
Understand the purpose of the treble and bass clefs and use them in transcribing compositions.
Understand and use the # (sharp) and ♭ (flat) symbols.
Use and understand simple time signatures.
Describe music: Choose from a wide range of musical vocabulary to accurately describe and appraise music. Describe how lyrics often reflect the cultural context of music and have social meaning.

P.E.

Games: Choose and combine techniques in game situations.
Work alone or with team mates to gain points or possession. Strike a bowled or volleyed ball with accuracy. Use forehand and backhand in racket games. Field, defend and attack tactically by anticipating he direction of play
Athletics: combine sprinting with low hurdles. Choose the best pace for running over various distances. Throw accurately and refine performance. Show control in take off and landing when jumping. Compete with others and keep track of personal best performances.
OAA- Select appropriate equipment for outdoor and adventurous activity

RSHE

Understand others
Listen first to others before trying to be understood.
Change behaviours to suit different situations.
Describe and understand others' points of view.
Not giving up
Show a determination to keep going, despite failures or set backs.
Reflect upon the reasons for failures and find ways to bounce back.
Stick at an activity even in the most challenging of circumstances.
See possibilities and opportunities even after a disappointment.
Consider oneself to be lucky and understand the need to look for luck.

MFL (Spanish) **Read Fluently:** Read and understand the main points and some of the detail in short written texts. Use the context of a sentence or a translation dictionary to work out the meaning of unfamiliar words. Read and understand the main points and opinions in written texts from various contexts, including present, past or future events. Show confidence in reading aloud, and in using reference materials. **Write imaginatively:** Write short texts on familiar topics. Use knowledge of grammar to enhance or change the meaning of phrases. Refer to recent experiences or future plans, as well as to everyday activities. Include imaginative and adventurous word choices. Convey meaning (although there may be some mistakes, the meaning can be understood with little or no difficulty) **Speak confidently:** Understand the main points and opinions in spoken passages. Give a short-prepared talk that includes opinions. Take part in conversations to seek and give information. Refer to recent experiences or future plans, everyday activities and interests. Vary language and produce extended responses. Be understood with little or no difficulty. **Understanding culture of countries**: Give detailed accounts of the customs, history and culture of the countries and communities where the language is spoken.

Computing

Coding: set IF conditions for movements, change the position of objects between screen layers, upload sounds from a file and edit them, combine use of pens with movement to create effects, set events to control other events, use IF THEN ELSE to control events or objects, use a range of sensing tools, use lists to create a set of variables
Connect: Collaborate with others online on approved sites, give examples of the risks of online communities, understand the effect of online comments, understand the rules around copyright, understand how simple networks are set up and used
Collect: Select appropriate applications to devise, construct and manipulate data to present it

R.E.

Philosophy – All religions and systems
Key Enquiry question: Why is there suffering in the world? The different views about the nature of knowledge, meaning and existence; key teachings from important Christian thinkers. Hinduism core knowledge: Introduce moral issues and consider the consequences in relation to Kharma; The impact of Ahima, Kharma, Dharma and Kharma on daily life and beyond. Islam core knowledge: Muslim perspectives on moral issues including idea of 'intention'; Different views about the nature of