Year 5
Curriculum Overview - 2023/24
Spring - Space

Maths

1st January- Multiplication and Division

- 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
- Continue to use the distributive law to partition numbers when multiplying them
- Divide numbers up to 4 digits by a one-digit number using formal written method of short division and interpret remainders appropriately for the context
- Check answers to calculations and to multiplication and division calculations using the inverse

15th January - Fractions

- Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- Compare and order fractions whose denominators are all multiples of the same number
- Add and subtract fractions with the same denominator and denominators that are multiples of the same number, including calculations > 1
- Recognise mixed numbers and improper fractions and convert from one form to the other
- Write mathematical statements > 1 as a mixed number
- Continue to apply their knowledge of multiplication table facts to find equivalent fractions
- Write percentages as a fraction with denominator hundred, and as a decimal
- Know percentage and decimal equivalents of ½, ¼, ⅕, ⅖, ⅘ and those with a denominator of a multiple of 10 or 25
- Solve problems which require knowing key percentage and decimal equivalents
- Recognise the per cent symbol and understand that per cent relates to "number of parts per hundred"
- Compare and order fractions whose denominators are all multiples of the same number

19th February - Decimals and Percentages

- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- Read and write decimal numbers as fractions
- Relate thousandths to decimal equivalents
- Round decimals with two decimal places to the nearest whole number and to one decimal place
- Read, write, order and compare numbers with up to three decimal places
- Recognise the per cent symbol and understand that per cent relates to "number of parts per hundred"
- Write percentages as a fraction with denominator hundred, and as a decimal
- Know percentage and decimal equivalents of ½, ¼, ⅕, ⅖, ⅘ and those with a denominator of a multiple of 10 or 25
- Solve problems which require knowing key percentage and decimal equivalents

11th March - Properties of Shapes (Angles and Polygons)

- Draw given angles, and measure them in degrees and draw shapes with sides measured to the nearest millimeter
- Use conventional markings for parallel lines and right angles
- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- Use the term diagonal
- Identify angles at a point and one whole turn, angles at a point on a straight line and ½ a turn and other multiples of 90º
- Estimate and compare acute, obtuse and reflex angles
- Use the properties of rectangles to deduce related facts and find missing lengths and angles

Literacy

Rollercoaster - A poem with a study of a range of poetic styles.

Firework Maker's Daughter - A narrative of an adventure journey based on a Philip Pullman novel.

The Apollo 13 Mission - A recount of the dramatic true events of a space mission.

The Lost Thing - A character description based on a Sci-Fi creature.

Space Exploration - A balanced argument on space exploration.

Computing

Digital Citizenship

- Using 'We are Internet Legends'
- Use technology safely, respectfully and responsibly
- Using social media safely

HTML Coding

- Design, write and debug programs
- Use logical reasoning to explain simple algorithms
- Detect and correct errors in algorithms and programs

Lego - We - Do

- Designing computer programs that use a range of inputs and outputs, including controlling physical systems (e.g. using tilt and motion sensors)
- Designing efficient algorithms
- Solving problems based on Moonbase creation

"Crumble" Coding

To use "Crumble" computers to control Space Buggies (linked to DT).

Science

Space

- To understand the Earth, Sun and Moon are spherical
- To understand why we have day and night
- To understand how Earth orbits around the Sun and how this causes seasons
- The relative movements of the Earth and Moon including phases of the moon and tides
- Geocentric vs Heliocentric models of the Solar System
- Maggie Aderin Pocock/Caroline Herschel

Forces

- To know how scientists came to understand gravity and how it works
- To know how scientists came to understand gravity and how it acts in Space

Animals, including humans

- Understand the life cycle of humans and the changes from birth and into old age, including puberty.

History

Space

- Understand key terms associated with space
- Know the names and key differences between the planets of our Solar System
- Understand the historical context of the Space Race in relation to the Cold War
- Understand key terms associated with space exploration
- Understand the key events of the Space Race between the USA and USSR from 1957-1975
- Know the key events of the history of space exploration and place on a timeline
- Know about the key figures associated with the Space Race
- Understand the significance of key events of unmanned space exploration between 1971 - present day
- Know about key British figures associated with space exploration
- Understand how technology helps us learn about space
- Know about the development of space exploration around the world (China, India, Japan, ESA)

Games

Various ball skills related to the following invasion games:

- Revision and extension of basic skills used in football, netball and hockey
- Attacking and defending strategies

PE

Gymnastics

- Perform actions, body shapes and balances accurately and consistently
- to chose shapes, balances and linking movements that they can include in a sequence
- To create and adapt their sequences to new situations and apply their own compositional ideas to their sequences
- To perform counterbalances and incorporate them into their sequences
- To choose and apply basic compositional ideas to the sequences they create
- To perform movements in canon and unison
- To use changes in speed, level and direction in their work and apply their own compositional ideas to their sequences

Art/DT

The Pop Art movement

- Key facts about Andy Warhol and his '32 Campbell's Soup Can' piece of artwork
- Recognise other artists from this style of art e.g. Bridget Riley, Frank Stella, Keith Haring and Bansky
- Create own pieces of Pop Art inspired work (digital and sculpture)

Design Technology

Designing and Building a Space Buggy

- Technical drawings and exploded drawings
- To be able to appropriately use tools and materials to create a working space buggy

PSHE

Belonging to a Community

- Sharing resources and spending
- Protecting and caring for our environment

Digital Resilience

- Understanding the media and assessing online content
- Understanding stereotypes in the media

Money and Work

- to identify jobs that they might like to do in the future
- about the role ambition can play in achieving a future career

RE

Hindiusm/Sanātana Dharma

- Why should Hindus (Sanatanis) live a good life?

Christianity

- What do Christians believe about Creation?

Music	**French**
Throughout the year the children will be part of a termly rotation that will include: ● Trumpet tuition with Surrey Arts ● Learning how to play the Glockenspiels	● Asking for food ● Making a sandwich ● Opinions about food ● Healthy vs Unhealthy ● Places in the town ● Giving and asking for directions ● Saying where you're going ● Telling the time ● Easter traditions