

Constellation Exploration

Year 4 Spring 2



Science: Astronomy

- To understand that the universe is an extent almost beyond imagining; The 'Big Bang' as one theory; Galaxies: Milky Way and Andromeda
- To know the eight planets of the Solar System
- To describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
- To describe the movement of the Moon relative to the Earth.
- To describe the Sun, Earth and Moon as approximately spherical bodies.
- To describe the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Science: Astronomy

- To understand how the seasons are caused by the Earth's orbit around the sun
- To understand gravity & gravitational pull: that gravitational pull of the moon (and to a lesser degree, the sun) causes ocean tides on Earth
- To understand how an eclipse happens
- To recognise and identify stars and constellations

History: Space Exploration

- To research exploration of space: Observation through telescopes, Rockets & satellites: from unmanned flights to Apollo 11, first landing on the moon, Space shuttle
- To place the events of space exploration on a timeline & explore concurrence

English:

Reading: Hidden Figures; Space Oddity; non-fiction texts about space

- discuss new and unusual vocabulary and clarify the meaning of these
- infer characters' feelings, thoughts and motives from their stated actions.
- consolidate the skill of justifying them using a specific reference point in the text
- confidently skim and scan texts to record details, using relevant quotes to support their answers to questions.
- retrieve and record information from a fiction or non-fiction text.
- use skills developed in year 3 in order to write a brief summary of main points, identifying and using important information.

Writing: Cosmic; Curiosity - the story of a Mars Rover

- Write for a range of audience and purposes, occasionally using a writing frame if required, and demonstrate and increased ability to sustain viewpoint and style throughout the piece. Demonstrate writing stamina with extended pieces.
- To use headings and subheadings
- Select and adhere to conventions of form i.e. genre specific (1st person for a diary).
- Use paragraphs to organise ideas effectively most of the time
- Fronted adverbials & expanded noun phrases to add detail, including modifying adjectives & prepositional phrases
- Build cohesion through a range of devices

Mathematics:

- To multiply two-digit numbers by one-digit number using formal written layout. To recognise and begin to show, using diagrams, families of common equivalent fractions.
- To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities.
- To add and subtract fractions with the same denominator.
- To recognise and write decimal equivalents of any number of tenths.
- To solve simple measure and money problems involving simple fractions and simple decimals to two decimal places with support.
- To present discrete and continuous data using some graphical methods, including bar charts and time graphs.
- To independently compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- To identify lines of symmetry in 2-D shapes presented in different orientations.
- To convert between some units of measure
- To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
- To solve problems involving converting from hours to minutes; years to months and weeks to days.
- To read time between analogue and digital 12 and 24-hour clocks.

Art: Exploring how artists use light.

- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials
- learn about great artists, architects and designers in history.
- to create sketch books to record their observations and use them to review and revisit ideas

Famous artists:

Caravaggio
Rembrandt
Vermeer

Music:

Music Appreciation: Holst's 'The Planets'.

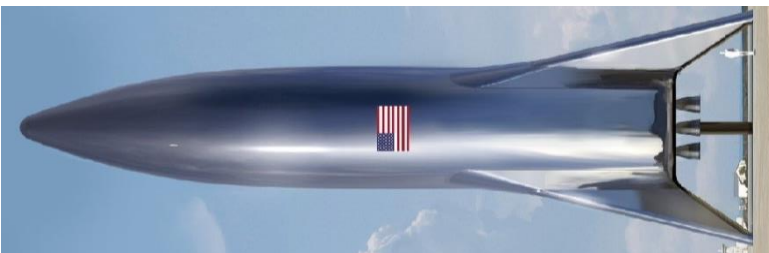
Dimensions of music:

Pitch – understanding of octave

Dynamics – loud and quiet -

Italian words ff, mf, f, p,mp, pf, crescendo, diminuendo

Charanga: Lean on me



Computing: Data Logging

- To explain that data gathered over time can be used to answer questions
- To use a digital device to collect data automatically
- To explain that a data logger collects 'data points' from sensors over time
- To use data collected over a long duration to find information
- To identify the data needed to answer questions
- To use collected data to answer questions



PE: Creative Cog

Real PE: co-ordination (sending & receiving); counter balance with a partner

Spanish: Stories/Pets

- Follow a story in Spanish and join in reading repeated phrases in the text
- Recognise word classes: nouns and verbs
- Compare traditional stories
- Understand simple rules for converting singular nouns into plurals
- Ask and answer questions about pets
- Understand the gist of a short story in Spanish
- Identify the sound of the letter j in several words

RE: How can a synagogue help us understand the Jewish faith? Pupils should learn::

- the meaning behind the key features, artefacts & symbols found in a synagogue
- about the significance of the synagogue for Jews in terms of being a place for worship, learning and community
- that Jews believe the Torah is law, teaching and guidance
- how its significance is reflected in the location & treatment of the scrolls
- that the teachings contained within the Torah include the *shema*, and form the core beliefs of Judaism
- that the *shema* is both a prayer and a statement of belief

PSHE: Living in the Wider World

Media literacy and Digital resilience

- How data is shared and used

Money & Work

- how people make different spending decisions based on their budget, values and
- needs
- how to keep track of money and why it is important to know how much is being spent
- about different ways to pay for things such as cash, cards, e-payment and the
- reasons for using them
- that how people spend money can have positive or negative effects on others e.g. charities, single use plastics