

Y6 Term 1

English	Diary entry: The Highwayman Explanation text: design a machine	Maths	Place value and the 4 operations
Science: Earth and Space			
NC objectives from curriculum progression Children will be taught to: <u>Scientific Knowledge</u> *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 across the sky <u>Scientific Enquiry Skills</u> *answer questions using evidence gathered from different types of scientific enquiry, e.g. describing the effects of gravity as a result of experiment, survey and secondary research. *identify and manage variables, e.g. speed and sizes in falling parachutes. *use appropriate equipment, such as meter rule, to take measurements, e.g. measuring the force needed to pull different shapes of boat through the water. *consider how, by modifying instrument or technique, measurements can be improved, e.g. when recording the apparent movement of the sun. *identify situations in which taking repeat readings will improve the quality of evidence, e.g. investigating the effect of gravity on a falling object. *use labelled diagrams to show complex outcomes, e.g. relating specific adaptations of organisms to environmental factors. *use various ways, as appropriate, to record complex evidence, e.g. in the construction of a key to aid plant identification. *use line graphs to display complex data, e.g. time of day in relation to the position of a shadow. *display and present key findings from enquiries orally and in writing, e.g. deciding how well classifications fit unfamiliar animals and plants. *in conclusions, indicate how trustworthy they are, e.g. when timing falling objects. *write a conclusion using evidence and identifying causal links, e.g. investigating what makes a parachute fall quicker *use evidence to suggest further comparative or fair tests that would develop the investigation, e.g. in the design of paper aeroplanes. *identify how an idea is supported or refuted by evidence, e.g. selective breeding to produce animals or plants with desirable characteristics. <u>Notes and guidance (non-statutory)</u> <i>Pupils should be introduced to a model of the Sun and Earth that enables them to explain day and night. Pupils should learn that the Sun is a star at the centre of our solar system and that it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune (Pluto was reclassified as a 'dwarf planet' in 2006). They should understand that a moon is a celestial body that orbits a planet (Earth has one moon; Jupiter has four large moons and numerous smaller ones). Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses. Science – key stages 1 and 2 30 Notes and guidance (non-statutory) Pupils should find out about the way that ideas about the solar system have developed, understanding how the geocentric model of the solar system gave way to the heliocentric model by considering the work of scientists such as Ptolemy, Alhazen and Copernicus.</i> <u>Pupils might work scientifically by:</u> *comparing the time of day at different places on the Earth through internet links and direct communication *creating simple models of the solar system *constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day *finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks. Geographical Knowledge *use learning about the Earth's rotation and day and night to identify and understand time zones and the Prime/Greenwich Meridian			

History/Geography: Victorians - What did they invent?

NC objectives from curriculum progressions

Children will (be taught to):

Historical Knowledge

- *learn about the Victorian period as a time of great change in terms of urbanisation and technological progress, particularly the birth of the railways
- *identify this period of history on a chronological timeline
- *sequence key developments during this period on a timeline

Historical Concepts

- *identify cause, effect and change when considering how the inventions of the Victorian period fit into a historical trend of humans striving to improve and enrich their lives
- *explain and evaluate the significance of Victorian inventions to modern day life

Historical Enquiry

- *address and devise historically valid questions relating to cause, effect, change and significance
- *construct informed responses to questions, involving thoughtful selection and organisation of evidence and correct historical terminology
- *write a speech in role as a Victorian travel agent to persuade people to holiday in Margate
- *evaluate a range of primary and secondary sources
- *explore how there can be different interpretations of the same historical event

Geographical Knowledge

- *identify land-use patterns in the local area; and identify changes over time

Geographical Understanding

- *understand geographical similarities and differences; and change, through the study of maps and photographs of Margate from before, during and after the Victorian era – particularly the development of the railway

Geographical Enquiry

- *use maps, atlases and digital/computer mapping to identify land use
- *use the eight points of a compass, four- and six-grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the local area

English activities/links	Maths activities/links	Outdoor learning/ Visits/Visitors
Persuasive letter to a member of the Flat Earth Society Explanations	Time zones Analysing data collected during science investigations	Exploring shadows and the apparent movement of the sun across the sky Astrodome/Ramsgate Stargazers

Art/DT: DT – Solar System Mobiles (Structures)

Children will:

Design

- *explore a range of mobiles, investigating how they have been constructed
- *interview Y4 children about knowledge of the solar system and how a 3D representation might help them to learn (market research)
- *generate innovative ideas through discussion and identify a purpose for their product – an educational solar system model
- *draw up a specification for their design, indicating the features that will appeal to intended users and how particular parts work
- *through discussion, explore, develop and communicate design proposals by modelling ideas, using ICT where appropriate
- make design decisions, taking account of constraints such as time, resources and cost

Make

- *develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail
- *select appropriate tools (saws, glue guns), and techniques, explaining choices
- *select materials, using scientific knowledge about the properties of materials to inform their choice
- *use different tools and equipment safely and accurately
- *measure and mark out accurately

*make modifications, where necessary *cut and join with accuracy to ensure a good-quality finish to the model Evaluate At the start of the unit: * evaluate existing examples of mobiles - how well products have been designed - how well products work - where products were designed and made - how innovative products are - how well products have been made - how well products achieve their purposes - when products were designed and made -how sustainable the materials in products are - why materials have been chosen - how well products meet user needs and wants - whether products can be recycled or reused -what impact products have beyond their intended purpose - what methods of construction have been used - who designed and made the products - how much products cost to make *identify criteria that can be used for their own designs During the unit: *critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make At the end of the unit: *evaluate their products against the original design specification, carrying out appropriate tests *share their products with Y3 pupils and gather feedback *record evaluations with labelled diagrams
ICT: We are app designers We are app designers: research, design, make, market and pitch a mobile phone app. Market research using internet, make using PowerPoint, use Green Screen technology to make an advert, pitch in a ‘Dragon’s Den’ scenario. See curriculum progression document for objectives for the year-long project. E-safety: Privacy and Security (Project Evolve)
PSHE: Keeping Safe: Social Media Children will be taught: H17. which, why and how, commonly available substances and drugs (including alcohol, tobacco and ‘energy drinks’) can damage their immediate and future health and safety; that some are restricted and some are illegal to own, use and give to others H13. how pressure to behave in unacceptable, unhealthy or risky ways can come from a variety of sources, including people they know and the media H14. to recognise when they need help and to develop the skills to ask for help; to use basic techniques for resisting pressure to do something dangerous, unhealthy, that makes them uncomfortable or anxious or that they think is wrong H24. the responsible use of mobile phones: safe keeping (looking after it) and safe user habits (time limits, use of passcode, turning it off at night etc.) H25. how to manage requests for images of themselves or others; what is and is not appropriate to ask for or share; who to talk to if they feel uncomfortable or are concerned by such a request H4. to recognise how images in the media (and online) do not always reflect reality and can affect how people feel about themselves
French: The Planets Children will be taught how to: *name at least five planets in French and place them on a solar system map. *spell about five of the planets in French. *recount an interesting fact about four of the planets. *explain the basic rules of adjectival agreement in terms of masculine, feminine, singular and plural.
PE Indoor PE Gymnastics (Multi-Ability Focus: Creative) Outdoor PE Invasion Games (Netball/Basketball) and Outdoor/Adventurous (Multi-Ability Focus: Physical)

Music

Music Express: Exploring rounds, effects of different pitched notes played together

Learning to play the violin: Abracadabra

Music theory

Space song <https://www.youtube.com/watch?v=noiwY7kQ5NQ>

RE: Is it better to express your beliefs in arts and architecture or in charity and generosity?

This unit will enable children to:

*describe and make connections between examples of religious creativity (buildings and art) (A1).

*show understanding of the value of sacred buildings and art (B3).

*suggest reasons why some believers see generosity and charity as more important than buildings and art (B2).

*apply ideas about values and from scriptures to the title question (C2).

*find out about religious teachings, charities and ways of expressing generosity (C3).

*examine the title question from different perspectives, including their own (C1).