History

A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066 (depth study)

A significant turning point in British history - the Battle of Britain (WW11)

DT

Aspect: Mechanical systems

Focus: Pulleys or Gears

Designing

• Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.
• Develop a simple design specification to guide their thinking.
• Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views.

Making

• Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team.
• Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost.

Evaluating

• Compare the final product to the original design specification.
• Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
• Consider the views of others to improve their work.
• Investigate famous manufacturing and engineering companies relevant to the project.

Technical knowledge and understanding

• Understand that mechanical and electrical systems have an input, process and an output.
• Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.
• Know and use technical vocabulary relevant to the product

Summer Term
STARLINGS
(Discrete subjects taught in blocks over the term)

Science

Forces

Pupils should be taught to:

- 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 greater effect.

Notes and Guidance (non-statutory):

Pupils should explore falling objects and raise questions about the effects of air resistance. They should explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall. They should experience forces that make things begin to move, get faster or slow down. Pupils should explore the effects of friction on movement and find out how it slows or stops moving objects, for example, by observing the effects of a brake on a bicycle wheel. Pupils should explore the effects of levers, pulleys and simple machines on movement. Pupils might find out how scientists such as Galileo Galilei and Isaac Newton helped to develop the theory of gravitation.

Pupils might work scientifically by:

- *exploring falling paper cones or cup-cake cases and*
- *designing and making [exploring] a variety of parachutes and*
- *carrying out fair tests to determine which designs are the most effective.*
- *exploring resistance in water by*
- *making and testing boats of different shapes.*
- *design and make artefacts that use simple levers, pulleys, gears and/or springs and explore their effects.*

KEY TO OVERVIEWS

- square bullet points – statutory requirements
- round bullet points – used to emphasise suggested, non-statutory skills for an area of learning

Red text – new to year group

Green text – suggested skill to focus on [square brackets = text added by Lancashire]

	Art Digital Media Focus Artist: ? - Record, collect and store visual information using digital cameras etc. - Present recorded visual images using software e.g. Photostory, Powerpoint. - Use a graphics package to create and manipulate new images. - Be able to Import an image (scanned, retrieved, taken) into a graphics package. - Understand that a digital image is created by layering. - Create layered images from original ideas. **Ongoing Drawing Skills** - Work from a variety of sources including observation, photographs and digital images. - Work in a sustained and independent way to create a detailed drawing. - Develop close observation skills using a variety of view finders. - Use a journal to collect and develop ideas. - Identify artists who have worked in a similar way to their own work. **Perspective and Composition** - Begin to use simple perspective in their work using a single focal point and horizon. - Show an awareness of how paintings are created i.e. Composition.	**Science - Earth and space** Pupils should be taught to: • 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 **Notes and guidance (non-statutory)** 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 8 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 1 moon; Jupiter has 4 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. 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. Pupils might work scientifically by: 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.

PSHE, PE, Modern Foreign Languages, RE, Music and Computing are collated separately. Please see individual subject documents on class pages.