

NATIONAL CURRICULUM CONTENT

TEACHING & LEARNING OUTCOMES

OTHER POINTS TO NOTE

Shock Waves

To include:

- **Science:** Rocks
- **Science:** Forces & Magnets
- **Geography:** Volcanoes & Earthquakes
- **Art & Design:** Natural Disaster Landscapes – Sketching & Painting
- **Music:** Film & Music
- **PE:** Film & Music

Working Scientifically

- ✓ Asking relevant questions and using different types of scientific enquiries to answer them
- ✓ Setting up simple practical enquiries, comparative and fair tests
- ✓ Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- ✓ Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- ✓ Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- ✓ Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- ✓ Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- ✓ Identifying differences, similarities or changes related to simple scientific ideas and processes
- ✓ Using straightforward scientific evidence to answer questions or to support their findings.

Rocks

- ✓ Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- ✓ Describe in simple terms how fossils are formed when things that have lived are trapped within rock
- ✓ Recognise that soils are made from rocks and organic matter

- Explore a variety of rocks and soils; identifying some of their observable properties, e.g. hardness, water absorbance.
- Compare and sort rocks and soils according to their properties; identifying similarities and differences.
- Recognise where and how rocks are used within the local environment.
- Investigate how different soils and rocks change over time.
- Know how fossils are formed and understand where and how fossils are collected.
- Learn about different fossil scientists, e.g. Mary Anning and Steve Etches.

See Collins Connect 'Snap Science' Teaching Framework and Online Platform - <http://connect.collins.co.uk>

UNIT: Rock Detectives

Science

Working Scientifically

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Forces & Magnets

- ✓ Compare how things move on different surfaces
- ✓ Notice that some forces need contact between two objects, but magnetic forces can act at a distance
- ✓ Observe how magnets attract or repel each other and attract some materials and not others
- ✓ Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- ✓ Describe magnets as having two poles
- ✓ Predict whether two magnets will attract or repel each other, depending on which poles are facing

- Develop an understanding of how objects move on different surfaces.
- Explore how air can be used to make objects, like a windmill, move.
- Understand forces, by looking at the different ways objects can be made to start moving.
- Explore a range of materials to identify which are magnetic and which are not.
- Investigate the strength of different magnets; exploring how magnets can be used to move objects.
- Understand that magnets have two poles; investigating the effect of holding two magnets together.
- Compare how fast different objects travel with a magnetic force.

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UNIT: The Power of Forces

Geography

Human and physical geography

- ✓ Describe and understand key aspects of:
 - ⇒ Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
 - ⇒ Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water

Geographical skills and fieldwork

- ✓ Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- ✓ Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world

- Understand the structure of Earth; recognising the idea of plate tectonics.
- Know the meaning of terminology related to volcanoes and earthquakes.
- Understand the structure of a volcano and why it erupts.
- Name and locate the earthquake and volcano zones on a world map; recognising why they are located where they are.
- Explore the physical and human geographical features of regions/countries associated with earthquakes and volcanoes.
- Recognise that Earth is not the only planet to have volcanoes and earthquakes.

Possible Educational Visits:

- Science Museum
- Tate Gallery
- West End - Musical

Art & Design

- ✓ To create sketch books to record their observations and use them to review and revisit ideas
- ✓ To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
- ✓ About great artists, architects and designers in history

- Explore the work of a range of great artists who have produced images associated with natural disasters; identifying similarities and differences within technique and effect.
- Explore ideas; sketching and recording appropriate observations into sketch books.
- Investigate and experiment with different art techniques and materials [including, pencil, charcoal and paint] to produce own compositions.
- Evaluate work and identify possible areas for improvement.

Artists:

- Stephanie Peters
- Andy Warhol
- Joseph Turner
- John Martin
- Samuel H. Crone

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| | <p>Music</p> <ul style="list-style-type: none"> ✓ Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression ✓ Improvise and compose music for a range of purposes using the inter-related dimensions of music ✓ Listen with attention to detail and recall sounds with increasing aural memory ✓ Use and understand staff and other musical notations ✓ Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians ✓ Develop an understanding of the history of music | <ul style="list-style-type: none"> • Listen to a variety of high-quality music produced for cinema, for example, natural disaster movies – How has the composer created mood? What effect does it have upon the action? • Develop and perform musical compositions, using a variety of musical instruments, for a natural disasters, e.g. earthquake, volcano eruption, hurricane. • Use music notation, both informal and formal (staff), to record their compositions. • Record and evaluate own compositions. | <p>Musical Instruments:</p> <ul style="list-style-type: none"> • Percussion (untuned) • Recorder • Xylophone • Guitar • Synthesiser - Keyboard |
| | <p>PE</p> <ul style="list-style-type: none"> ✓ Use running, jumping, throwing and catching in isolation and in combination ✓ Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics] ✓ Perform dances using a range of movement patterns ✓ Compare their performances with previous ones and demonstrate improvement to achieve their personal best | | <p><i>Record performances and evaluate.</i></p> |

Siege of Saxons

To include:

- **History:** Britain’s Settlement by Anglo-Saxons & Scots
- **Design & Technology:** Banners (Textile Printing)
- **Religious Education (RE):** Religion and the Individual (include Symbols & Religious Expression)

Possible Educational Visits:

- British Museum

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| <p>History</p> <ul style="list-style-type: none"> ✓ Britain’s settlement by Anglo-Saxons and Scots | <ul style="list-style-type: none"> • Explore the Roman withdrawal from Britain in c. AD 410, and the fall of the western Roman Empire. • Understand the effect the Scots invasion from Ireland to the north (now Scotland) and the Anglo-Saxon settlement had upon the British Empire. • Explore the location of Anglo-Saxon settlements and kingdoms. • Describe what life was like during this time period, including art, culture and religion. • Examine a range of archaeological sites, including the burial ship at Sutton Hoo. • Plot a variety of relevant events, during this time, onto a chronological timeline. | |
| <p>Design & Technology</p> <p>Design</p> <ul style="list-style-type: none"> ✓ Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups ✓ Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> ✓ Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately ✓ Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <p>Evaluate</p> <ul style="list-style-type: none"> ✓ Investigate and analyse a range of existing products ✓ Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work ✓ Understand how key events and individuals in design and technology have helped shape the world | <ul style="list-style-type: none"> • Investigate and analyse a range of existing coats of arms including those used throughout history; identifying materials and methods used during assembly. • Explore how different personality traits are represented within the design. • Apply what they have learnt through investigation to the design process. • Present ideas clearly; using a variety of appropriate methods. • Assemble different materials together to produce an individual coat of arms to represent themselves or their family. • Evaluate work and identify possible areas for improvement. | <p>Resources:</p> <ul style="list-style-type: none"> • Textile Supplies [e.g. White Cotton Fabric, Fabric Paint, Fabric Printing Press, Batik Equipment] |
| <p>RE</p> | <ul style="list-style-type: none"> • Understand what it means for an individual to belong to a faith. • Understand how religious identity is developed through dress and personal symbols. • Understand that there are similarities and differences in the ways in which faiths express and interpret these ideas. | <p>Resources:</p> <ul style="list-style-type: none"> • Religious stories/books. • Artefacts from a variety of religions. |

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| <p>Incorporate across all topics</p> <p>To include:</p> <ul style="list-style-type: none"> • Computing: E-Safety and Digital Literacy • Computing: Programming and Computer Science • Computing: Creative use of ICT • PHSE: Health and Wellbeing • PHSE: Relationships • PHSE: Living in the Wider World | <p>Computing</p> <ul style="list-style-type: none"> ✓ Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration ✓ Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content ✓ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact <p>Suggested Software:</p> <ul style="list-style-type: none"> • World Wide Web (www) – Search Engine • CEOP – www.thinkuknow.co.uk • LGFL: E-Safety Framework • LGFL London Mail • 2Simple Software (& Purple Mash) | <ul style="list-style-type: none"> ✓ Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts ✓ Use sequence, selection, and repetition in programs; work with variables and various forms of input and output ✓ Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs <p>Suggested Software:</p> <ul style="list-style-type: none"> • 2Simple Software (& Purple Mash): 2Go, 2logo, 2DIY, 2DIY 3D, 2Simulate • Roamer World • Purple Mash 2Code: Gibbon Lessons, Debug Challenges Gibbon • J2Code www.j2e.com/j2code • Scratch www.scratch.mit.edu <p>Suggested Equipment:</p> <ul style="list-style-type: none"> • Floor Robots - BeeBot, Pro-Bot, Roamer • Floor Mats/Grids | <ul style="list-style-type: none"> ✓ Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information – <i>Word Processing, Presentation, Graphics, Digital Media (capturing video & sound footage, photography, animation) and Data Handling</i> <p>Suggested Software:</p> <ul style="list-style-type: none"> • 2Simple Software (& Purple Mash): 2Paint A Picture, 2Design and Make, 2Type, 2Create a Story, 2Create, 2Publish, 2Connect, 2Photo, 2Animate, 2Count, 2Graph, 2Question, 2Investigate, 2Calculate, 2Music – Explore, Beat & Sequence • Purple Mash Topics www.purplemash.com • LGFL 2Simple Talking Stories • Clicker 6 • Microsoft Office: Word, PowerPoint, Excel <p>Suggested Equipment:</p> <ul style="list-style-type: none"> • Tablets • Digital Cameras • Tuff Cams • Recordable Microphones • Film Production Equipment, e.g. lighting, green screen, tripod • Data Loggers |
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Pupil should have the opportunity to learn:

- ✓ what positively and negatively affects their physical, mental and emotional health (including the media)
- ✓ how to make informed choices (including recognising that choices can have positive, neutral and negative consequences) and to begin to understand the concept of a 'balanced lifestyle'
- ✓ to recognise opportunities to make their own choices about food, what might influence their choices and the benefits of eating a balanced diet
- ✓ to recognise how images in the media do not always reflect reality and can affect how people feel about themselves
- ✓ to reflect on and celebrate their achievements, identify their strengths, areas for improvement, set high aspirations and goals
- ✓ to deepen their understanding of good and not so good feelings, to extend their vocabulary to enable them to explain both the range and intensity of their feelings to others
- ✓ to recognise that they may experience conflicting emotions and when they might need to listen to their emotions or overcome them
- ✓ about change, including transitions (between Key Stages and schools), loss, separation, divorce and bereavement
- ✓ to differentiate between the terms, 'risk', 'danger' and 'hazard'
- ✓ to deepen their understanding of risk by recognising, predicting and assessing risks in different situations and deciding how to manage them responsibly (including sensible road use and risks in their local environment) and to use this as an opportunity to build resilience
- ✓ to recognise their increasing independence brings increased responsibility to keep themselves and others safe
- ✓ that bacteria and viruses can affect health and that following simple routines can reduce their spread
- ✓ that pressure to behave in an unacceptable, unhealthy or risky way can come from a variety of sources, including people they know and the media
- ✓ to recognise when and how to ask for help and use basic techniques for resisting pressure to do something dangerous, unhealthy, that makes them uncomfortable, anxious or that they believe to be wrong
- ✓ school rules about health and safety, basic emergency aid procedures, where and how to get help
- ✓ what is meant by the term 'habit' and why habits can be hard to change
- ✓ which, why and how, commonly available substances and drugs (including alcohol and tobacco) could damage their immediate and future health and safety, that some are legal, some are restricted and some are illegal to own, use and supply to others
- ✓ how their body will, and emotions may, change as they approach and move through puberty
- ✓ about human reproduction
- ✓ about taking care of their body, understanding that they have autonomy and the right to protect their body from inappropriate and unwanted contact their body autonomy and rights; understanding that actions such as female genital mutilation (FGM) constitute abuse, are a crime and how to get support if they have fears for themselves or their peers
- ✓ strategies for keeping physically and emotionally safe including road safety (including cycle safety- the Bikeability programme), safety in the environment (including rail, water and fire safety), and safety online (including social media, the responsible use of ICT and mobile phones)
- ✓ the importance of protecting personal information, including passwords, addresses and the distribution of images of themselves and others
- ✓ about people who are responsible for helping them stay healthy and safe and ways that they can help these people

Pupil should have the opportunity to learn:

- ✓ to recognise and respond appropriately to a wider range of feelings in others
- ✓ to recognise what constitutes a positive, healthy relationship and develop the skills to form and maintain positive and healthy relationships
- ✓ to recognise ways in which a relationship can be unhealthy and who to talk to if they need support
- ✓ to be aware of different types of relationship, including those between acquaintances, friends, relatives and families,
- ✓ that civil partnerships and marriage are examples of stable, loving relationships and a public demonstration of the commitment made between two people who love and care for each other and want to spend their lives together and who are of the legal age to make that commitment
- ✓ to be aware that marriage is a commitment freely entered into by both people, that no one should enter into a marriage if they don't absolutely want to do so
- ✓ that their actions affect themselves and others
- ✓ to judge what kind of physical contact is acceptable or unacceptable and how to respond
- ✓ the concept of 'keeping something confidential or secret', when we should or should not agree to this and when it is right to 'break a confidence' or 'share a secret'
- ✓ to listen and respond respectfully to a wide range of people, to feel confident to raise their own concerns, to recognise and care about other people's feelings and to try to see, respect and if necessary constructively challenge their points of view
- ✓ to work collaboratively towards shared goals
- ✓ to develop strategies to resolve disputes and conflict through negotiation and appropriate compromise and to give rich and constructive feedback and support to benefit others as well as themselves
- ✓ that differences and similarities between people arise from a number of factors, including family, cultural, ethnic, racial and religious diversity, age, sex, gender identity, sexual orientation, and disability (see 'protected characteristics' in the Equality Act 2010)
- ✓ to realise the nature and consequences of discrimination, teasing, bullying and aggressive behaviours (including cyber bullying, use of prejudice-based language, how to respond and ask for help)
- ✓ to recognise and manage 'dares'
- ✓ to recognise and challenge stereotypes

Pupil should have the opportunity to learn:

- ✓ to research, discuss and debate topical issues, problems and events concerning health and wellbeing and offer their recommendations to appropriate people
- ✓ why and how rules and laws that protect themselves and others are made and enforced, why different rules are needed in different situations and how to take part in making and changing rules
- ✓ to understand that everyone has human rights, all peoples and all societies and that children have their own special rights set out in the United Nations Declaration of the Rights of the Child
- ✓ that these universal rights are there to protect everyone and have primacy both over national law and family and community practices
- ✓ to know that there are some cultural practices which are against British law and universal human rights, such as female genital mutilation
- ✓ to realise the consequences of anti-social and aggressive behaviours such as bullying and discrimination of individuals and communities
- ✓ that there are different kinds of responsibilities, rights and duties at home, at school, in the community and towards the environment
- ✓ to resolve differences by looking at alternatives, seeing and respecting others' points of view, making decisions and explaining choices
- ✓ what being part of a community means, and about the varied institutions that support communities locally and nationally
- ✓ to recognise the role of voluntary, community and pressure groups, especially in relation to health and wellbeing
- ✓ to appreciate the range of national, regional, religious and ethnic identities in the United Kingdom
- ✓ to think about the lives of people living in other places, and people with different values and customs
- ✓ about the role money plays in their own and others' lives, including how to manage their money and about being a critical consumer
- ✓ to develop an initial understanding of the concepts of 'interest', 'loan', 'debt', and 'tax' (e.g. their contribution to society through the payment of VAT)
- ✓ that resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment
- ✓ about enterprise and the skills that make someone 'enterprising'
- ✓ to explore and critique how the media present information

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| <p>Also to cover:</p> <ul style="list-style-type: none"> • Music: African Drumming • PE: Ball Skills – Tennis/Badminton • Languages: Spanish | <p>Music</p> <ul style="list-style-type: none"> ✓ Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression ✓ Improvise and compose music for a range of purposes using the inter-related dimensions of music ✓ Listen with attention to detail and recall sounds with increasing aural memory ✓ Use and understand staff and other musical notations | <p>Musical Instruments:</p> <ul style="list-style-type: none"> • African Drums |
| | <p>PE</p> <ul style="list-style-type: none"> ✓ Use running, jumping, throwing and catching in isolation and in combination ✓ Play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending | |
| <p>Possible Educational Visits:</p> <ul style="list-style-type: none"> • African Drumming Worksop • Wimbledon Tennis Club | <p>Languages</p> <ul style="list-style-type: none"> ✓ Listen attentively to spoken language and show understanding by joining in and responding ✓ Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words ✓ Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help ✓ Speak in sentences, using familiar vocabulary, phrases and basic language structures ✓ Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases ✓ Present ideas and information orally to a range of audiences ✓ Read carefully and show understanding of words, phrases and simple writing ✓ Appreciate stories, songs, poems and rhymes in the language ✓ Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary ✓ Write phrases from memory, and adapt these to create new sentences, to express ideas clearly ✓ Describe people, places, things and actions orally and in writing ✓ Understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English | |