Hudson Road
Primary School

UPPER KEY STAGE 2 CURRICULUM
Subject Content

Foundation subjects, including Science, in alphabetical order

UKS2 ART

SUBJECT CONTENT……Pupils should be taught to:

- 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.

UKS2 DESIGN TECHNOLOGY

SUBJECT CONTENT……Pupils should be taught to:

Design	Make	Evaluate	Technical knowledge
▪ 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	▪ 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	▪ 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	▪ build structures, exploring how they can be made stronger, stiffer and more stable ▪ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

UKS2 GEOGRAPHY

SUBJECT CONTENT……Pupils should be taught to:

Locational knowledge	Place knowledge	Human and physical geography	Geographical skills and fieldwork
▪ locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities ▪ name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time ▪ identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)	▪ understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America	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	▪ 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 ▪ use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

UKS2 HISTORY

SUBJECT CONTENT……YEAR 5 Pupils should be taught to:

TERM 1	TERM 2	TERM 3
Anglo-Saxons Unit 2 (Viking & Anglo-Saxon struggle)		Ancient Greece (Depth Study)
Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor; This could include:- ▪ Viking raids and invasion ▪ resistance by Alfred the Great and Athelstan, first king of England ▪ further Viking invasions and Danegeld ▪ Anglo-Saxon laws and justice ▪ Edward the Confessor and his death in 1066		**Ancient Greece** ▪ A study of Greeks life and achievements and their influence on the western world

SUBJECT CONTENT……YEAR 6 Pupils should be taught to:

TERM 1	TERM 2	TERM 3
Study of British history which goes beyond 1066 (WW2/LOCAL HISTORY – e.g. current history of Slough planning)		Non European Society e.g. early Islamic, Mayan or Benin
A study of an aspect or theme in **British history** extends chronological knowledge **beyond 1066** For example:- ▪ the changing power of monarchs using case studies such as John, Anne and Victoria ▪ Changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century ▪ the legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day ▪ A significant turning point in British history e.g. the first railways or the Battle of Britain		**A non-European society** One study chosen from:- ▪ Early Islamic civilisation c. AD 900- ▪ Mayan civilisation c. AD 900- ▪ Benin c. AD 900-1300

UKS2 ICT /COMPUTING

SUBJECT CONTENT……YEAR 5 Pupils should be taught to:

Computer Science	Data	Communication	Digital Literacy & Research	Multimedia
Programming: • plan and test their algorithms and programs, detecting and correcting errors as needed • explore the use of variables • design and write a program that controls or simulates physical systems and sensors **How Computers Work:** • understand what 'the internet' and 'the world wide web' is. • understand how information is sent and received.	**Databases:** • interrogate a database using more complex searches • design and create a database • use information in a database to create a graph in order to answer questions **Spreadsheets:** • add text and numbers to spreadsheet cells • add simple formulae: +-*/ • change the appearance of cells, e.g. size, borders and colours. • copy and paste formulae within a spreadsheet	**Word processing:** • develop consistency across the document **Presentations:** • add multimedia elements, e.g. sounds, animation • trigger animations or link to other slides when objects are pressed **Online collaboration:** • display themselves appropriately online, e.g. avatar, code name • add comments / posts appropriately to online communication e.g. a blog • understand that information I put online leaves a trail, or digital footprint	**Research:** • know the information found on some sites will be biased • know that images and text found on websites is subject to copyright • know how to credit the use of websites in their work, and why this should be done • know different ways of reporting concerns about content	**Creating images:** • add and combine shapes to design a 3D model • add detail to their own 3D model **Photography:** • improve a photo with editing tools e.g. blur, filters, add border **Video:** • edit the video; trimming and re-ordering clips • add a voice-over and / or background music to a video • add titles to my video **Audio:** • create an audio recording and add it to other software

UKS2 ICT /COMPUTING continued

SUBJECT CONTENT……YEAR 6 Pupils should be taught to:

Computer Science	Data	Communication	Digital Literacy & Research	Multimedia
Programming: • test, debug and modify a program to improve it • design and create a game / app incorporating variables **How Computers Work:** • describe the key features of the components of the World Wide Web and the internet, e.g. browsers, URLs and hyperlinks. • use different web browsers and identify their similarities and differences. • describe the opportunities that the World Wide Web offers for communication and collaboration.	**Spreadsheets:** • use simple functions, e.g. SUM, AVERAGE, to solve problems • use brackets to organise formulae • I change data in a formula to answer 'What if?' questions • change the format of cells appropriately • create a graph using spreadsheet data • design and create a spreadsheet for a specific purpose	**Word processing:** • discuss and evaluate their own documents, and make amendments as needed **Presentations:** • create a consistent design for a presentation, and present to others **Online collaboration:** • know that some websites have age restrictions, and why these might be in place • describe the opportunities computer networks and the internet offer for communication and collaboration • know different ways to report concerns about content and contact	**Research:** • understand how computer networks work, including the internet • understand how networks can provide multiple services, such as the web	**Photography:** • take photos for a given purpose and use them in their work **Animation:** • plan an animation using a storyboard • shoot frames to combine into an animation • edit an animation to improve it / make it more realistic • put sounds over an animation • add titles and photos into an animation • plan and create an animation for a given purpose • combine an animation with other software **Multimedia overall:** • select and use appropriate multimedia tools, and combine these for a given purpose with confidence

UKS2 MUSIC

SUBJECT CONTENT……Pupils should be taught to:

- 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.

UKS2 PHYSICAL EDUCATION

SUBJECT CONTENT……Pupils should have (end of Key Stage 2)

MOVEMENT	USING SKILLS/ TECHNIQUES	COOPERATION
Continued to apply and develop a broader range of skills	Learned how to use skills in different ways and to link them to make actions and sequences of movement	Enjoyed communicating and collaborating with each other
COMPETITION	**CHALLENGE**	**ANALYSIS AND EVALUATION**
Enjoyed competing with each other	Developed an understanding of how to improve in different physical activities and sports	Learned how to evaluate and recognise their own success

UKS2 PERSONAL, SOCIAL AND HEALTH EDUCATION

SUBJECT CONTENT……Pupils should be taught to:- ** specific to UKS2*

HEALTH AND WELL-BEING	RELATIONSHIPS	LIVING IN THE WIDER WORLD
further develop and demonstrate:- ➢ how to maintain physical, mental and emotional health and wellbeing ➢ how to manage risks to physical and emotional health and wellbeing ➢ ways of keeping physically and emotionally safe * *about managing change, such as puberty, transition and loss* ➢ how to make informed choices about health and wellbeing and to recognise sources of help with this ➢ how to respond in an emergency ➢ how to identify different influences on health and wellbeing.	**further develop and demonstrate:-** ➢ how to develop and maintain a variety of healthy relationships within a range of social/cultural contexts ➢ how to recognise and manage emotions within a range of relationships ➢ how to recognise risky or negative relationships including all forms of bullying and abuse ➢ how to respond to risky or negative relationships and ask for help ➢ how to respect equality and diversity in relationships.	**further develop and demonstrate:-** ➢ about respect for the self and others and the importance of responsible behaviours and actions ➢ about rights and responsibilities as members of families, other groups and ultimately as citizens ➢ about different groups and communities * *to respect equality and to be a productive member of a diverse community* ➢ about the importance of respecting and protecting the environment ➢ about where money comes from, keeping it safe and the importance of managing it effectively * *how money plays an important part in people's lives* * *a basic understanding of enterprise.*

UKS2 RELIGIOUS EDUCATION

YEAR A

SUBJECT CONTENT……Pupils should be taught:

TERM 1	TERM 2	TERM 3
JUDAISM / CHRISTIANITY	**HINDUISM / CHRISTIANITY**	**ISLAM**
What can we find out about a local Jewish community? **How and why do Jews show care for others?** Belief / Authority / Expressions of Belief / Impact of belief	**Why do Hindus travel to sacred places?** **How do Hindus use ceremonies and ritual to worship and express belonging?** **How does this affect what Hindus do?** Belief / Authority / Expressions of Belief / Impact of belief	**Why do Muslims believe and how are these beliefs expressed?** *Demonstrating understanding of beliefs and practices within Islam and how these beliefs make a difference to individual and communal life.* Belief / Authority / Expressions of Belief / Impact of Belief
What are the themes of Christmas? *Demonstrating understanding of significance of Christmas story, Christian symbols and practices today.* Belief / Authority / Expressions of Belief	**Why is the Last Supper so important to Christians?** *Demonstrating understanding of Last Supper, its significance at the time of Jesus and today, Impact of belief* Belief / Authority / Expressions of Belief / Impact of belief	

YEAR B

SUBJECT CONTENT……Pupils should be taught:

TERM 1	TERM 2	TERM 3
JUDAISM / CHRISTIANITY	**HINDUISM / CHRISTIANITY**	**ISLAM**
Why do people have ceremonies and use ritual in their lives? *Demonstrating understanding of meaning and importance of rituals in more than one religion,* *comparing similarities and differences in religious beliefs and expression:* Belief / Expressions of Belief: **Core and supplementary religions can be used e.g. Judaism**	**How and why do Hindus show care for others?** **What does Hinduism teach about the environment? How does this affect what Hindus do?** Impact of belief	**How do Muslims show their faith through actions?** **What can we find out about a local Muslim community?** Belief / Authority / Expressions of Belie /Impact of Belief
What do the gospels tell us about the birth of Jesus? *Demonstrating understanding of significance of Christmas story, Christian symbols and practices today* Belief / Authority /Expressions of Belief	**Why are Good Friday and Easter Day the most important days for Christians?** *Demonstrating understanding of crucifixion and resurrection as basis of Christianity and significance for Christians today* Belief / Authority /Expressions of Belief	

UPPER KS2 SCIENCE

Pupils should:

Sc 1	WORKING SCIENTIFICALLY:- opportunities for children to.....

1. Use their science experiences to: explore ideas and raise different kinds of questions;
2. Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions;
3. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.
4. Use and develop keys and other information records to identify, classify and describe living things and materials
5. Identify patterns that might be found in the natural environment.
6. Make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them;
7. Choose the most appropriate equipment to make measurements and explain how to use it accurately.
8. Decide how to record data from a choice of familiar approaches;
9. Look for different causal relationships in their data and identify evidence that refutes or supports their ideas.
10. Use their results to identify when further tests and observations might be needed;
11. Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact.
12. Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas;
13. Talk about how scientific ideas have developed over time.

Pupils are not expected to cover each aspect for every area of study.

Pupils should:

Sc2	**BIOLOGY**
	PLANTS

Describe the life process of reproduction in some **plants** (and Animals, including humans)

LIVING THINGS AND THEIR HABITATS

1. Study and raise questions about their local environment throughout the year.
2. Observe life-cycle changes in a variety of living things, e.g. plants in the vegetable garden or flower border, and animals in the local environment.
3. Find out about the work of naturalists and animal behaviourists, e.g. David Attenborough and Jane Goodall.
4. Find out about different types of reproduction, including sexual and asexual reproduction in plants, and sexual reproduction in animals.
5. Work scientifically by: observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences.
6. (Might) Try to grow new plants from different parts of the parent plant, e.g. seeds, stem and root cuttings, tubers, bulbs.
7. (Might) Observe changes in an animal over a period of time (e.g. by hatching and rearing chicks),
8. Compare how different animals reproduce and grow.

ANIMALS INCLUDING HUMANS

1. Draw a timeline to indicate stages in the growth and development of humans.
2. Learn about the changes experienced in puberty.
3. (Could) Work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.

Pupils should:

Sc3	CHEMISTRY
	MATERIALS

1. Build a more systematic understanding of materials by exploring and comparing the properties of a broad range of materials, including relating these to what they learnt about magnetism in year 3 and about electricity in year 4.
2. Explore reversible changes, including, evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes.
3. Explore changes that are difficult to reverse, e.g., burning, rusting and other reactions, e.g. vinegar with bicarbonate of soda.
4. Find out about how chemists create new materials, e.g. Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinkle-free cotton.
1. (Might) Work scientifically by: carrying out tests to answer questions, e.g. 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?'
2. (Might) Compare materials in order to make a switch in a circuit.
3. (Could) Observe and compare the changes that take place, e.g. when burning different materials or baking bread or cakes.
8. (Might) Research and discuss how chemical changes have an impact on our lives, e.g. cooking,
5. Discuss the creative u use of new materials such as polymers, super-sticky and super-thin materials.

(NB: Pupils are not required to make quantitative measurements about conductivity and insulation at this stage. It is sufficient for them to observe that some conductors will produce a brighter bulb in a circuit than others and that some materials will feel hotter than others when a heat source is placed against them. Safety guidelines should be followed when burning materials.)

Pupils should:

Sc4	PHYSICS
	MOTION AND FORCES

1. Explore falling objects and raise questions about the effects of air resistance.
2. Explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall.
3. Experience forces that make things begin to move, get faster or slow down.
4. Explore the effects of friction on movement and find out how it slows or stops moving objects, e.g. by observing the effects of a brake on a bicycle wheel.
5. Explore the effects of levers, pulleys and simple machines on movement. 6. (Might) Find out how scientists, e.g., Galileo Galilei and Isaac Newton helped to develop the theory of gravitation.
7. (Might) Work scientifically by: exploring falling paper cones or cup-cake cases, and designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective.
8. (Might) Explore resistance in water by making and testing boats of different shapes.
9. (Might) design and make products that use levers, pulleys, gears and/or springs and explore their effects.

	LIGHT

1. Build on the work on light in year 3, exploring the way that light behaves, including light sources, reflection and shadows.
2. Talk about what happens and make predictions.
3. (Might) Work scientifically by: deciding where to place rear-view mirrors on cars; designing and making a periscope and using the idea that light appears to travel in straight lines to explain how it works.
4. (Might) Investigate the relationship between light sources, objects and shadows by using shadow puppets.
5. (Could) Extend their experience of light by looking a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters (they do not need to explain why these phenomena occur)

ELECTRICITY

1. Build on their work in year 4, pupils should construct simple series circuits, to help them to answer questions about what happens when they try different components, e.g. switches, bulbs, buzzers and motors.
2. Learn how to represent a simple circuit in a diagram using recognised symbols.
(NB. Pupils are expected to learn only about series circuits, not parallel circuits. Pupils should be taught to take the necessary precautions for working safely with electricity.)
3. (Might) Work scientifically by: systematically identifying the effect of changing one component at a time in a circuit; designing and making a set of traffic lights, a burglar alarm or some other useful circuit.

EARTH AND SPACE

1. Be introduced to a model of the Sun and Earth that enables them to explain day and night.
2. 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).
3. 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).
(NB: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.)
4. 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.
5. (Might) work scientifically by: comparing the time of day at different places on the Earth through internet links and direct communication;
6. Create simple models of the solar system;
7. Construct simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day;
8. Find out why some people think that structures such as Stonehenge might have been used as astronomical clocks.

SPIRITUAL, MORAL, SOCIAL & CULTURAL DEVELOPMENT ACROSS THE CURRICULUM

OFSTED… focuses on SMSC both within judgements on Leadership and Management, and Overall Effectiveness……
'***In reporting, inspectors must also consider the spiritual, moral, social and cultural development of the pupils at the school.'***
GOVERNORS…might effectively ask; ***'How is the children's SMSC Development being promoted across different areas of the curriculum?'***

ENGLISH Developing SMSC through……	MATHEMATICS Can provide a contribution to SMSC by……	SCIENCE Contributes to SMSC development through…	ICT Contributes to SMSC development through…
• Developing confidence and expertise in language, enabling an individual and social identity; • Enabling children to understand and engage with feelings and values embodied in high quality texts and genres; • Developing children's awareness of moral and social issues in fiction, journalism, magazine, radio, television and film; • Helping the understanding of how language changes over time, the influences of spoken and written language and social attitudes to the use of language;	• Enabling children to acknowledge the important contribution made to mathematics by non-western cultures;	• Encouraging children to reflect on the wonder of the natural world; • Becoming aware of how science and technology can affect society and the environment; • Considering the moral dilemmas that can result in scientific developments; • Developing respect for differing opinions, e.g. creation; • Co-operation in practical activity; • Becoming aware that scientific developments are the product of many different cultures;	• Preparing children for the challenges of living and learning in a technologically-enriched, increasingly inter-connected world; • Making clear the guidelines about the ethical use of the internet; • Acknowledging advances in technology and appreciation for human achievement

HISTORY Contributes to SMSC development by……	GEOGRAPHY Contributes to SMSC development through…	ART Contributes to SMSC development by……	DESIGN TECHNOLOGY Contributes to SMSC development through…
• Learning about the creation and evolution of British society; • Enabling children to reflect on issues such as slavery, the holocaust and imperialism; • Becoming aware of the moral implications of the actions of historical figures;	• Having opportunities to reflect on the creation, earth's origins, future and diversity; • Reflecting on the fair distribution of the earth's resources and issues surrounding climate change; • Studying people and physical geography, to enable children to reflect on the social and cultural characteristics of society;	• Developing children's aesthetic appreciation; • Evoking feelings of 'awe' and 'wonder'; • Enabling children to reflect on nature, their environment and surroundings; • Studying artists…. 1. with spiritual or religious themes 2. who raise issues concerning ethics, i.e. war/poverty/suffering	• reflection on products and inventions, the diversity of materials and ways in which designs can improve the quality of life; • Becoming aware of the moral dilemmas created by technological advances; • Understanding how different cultures have contributed to technology; • Having opportunities to work as a team, recognising other's strengths, sharing equipment;

P.E Development is actively promoted by……	FRENCH/ MFL Contributes to SMSC development by……
• Experiencing activities which promote co-operation, teamwork, competition, rules, self -discipline and fair play; • Exploring the sports and traditions of a variety of cultures; • Experiencing activities that provide opportunities for self-reflection, awareness and challenge;	• Gaining insights into the way of life, cultural traditions, moral and social developments of other people; • Developing social skills through group activities and communication exercises; • Improving listening skills through oral/aural work;