Hudson Road
Primary School

LOWER KEY STAGE 2 CURRICULUM
Subject Content

Foundation subjects, including Science, in alphabetical order

LKS2 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.

LKS2 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.

LKS2 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.

LKS2 HISTORY

SUBJECT CONTENT……YEAR 3 Pupils should be taught:

TERM 1		TERM 2	TERM 3
Stone Age	Bronze Age	Iron age	Achievements of an early civilisation: Ancient Egypt (Depth Study)
Changes to Britain from the Stone Age to the Iron Age This could include:- ▪ Late Neolithic hunter-gatherers and early farmers, e.g. Skara Brae ▪ Bronze Age religion, technology and travel, e.g. Stonehenge ▪ Iron Age hill forts; tribal kingdoms, farming, art and culture			The achievements of the **Earliest Civilisations** An overview of where and when the first civilisations appeared and ***a depth study*** of one of the following.. ▪ Ancient Sumer ▪ The Indus Valley ▪ Ancient Egypt ▪ The Shang Dynasty of Ancient China

SUBJECT CONTENT……YEAR 4 Pupils should be taught:

TERM 1	TERM 2	TERM 3
Roman Empire and Impact on Britain & Celts		ANGLO Saxons Unit 1 (before Alfred the Great)/ Fall of the western Roman Empire, Scots invasions
Roman Empire and its impact on Britain This could include:- ▪ Julius Ceaser's attempted invasion in 55-54 BC ▪ The Roman Empire by AD 42 and the power of its army ▪ Successful invasion by Claudius and conquest, including Hadrian's Wall ▪ British resistance, e.g. Boudica ▪ 'Romanisation' of Britain; sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity		**Britain's settlement by Anglo-Saxons and Scots** This could include:- ▪ Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire ▪ Scots invasions from Ireland to north Britain (now Scotland) ▪ Anglo-Saxon invasions, settlements and kingdoms; place names and village life. ▪ Anglo-Saxon art and culture. ▪ Christian conversion – Canterbury, Iona and Lindisfarne

LKS2 ICT /COMPUTING

SUBJECT CONTENT……YEAR 3 Pupils should be taught to:

Computer Science	Data	Communication	Digital Literacy & Research	Multimedia
Programming: • reorder a sequence of instructions to perform a given task • refine a program by using the repeat command **Simulations:** • explain how to control a simulation • explain how a simulation is and isn't realistic **How Computers Work:** • identify wired and wireless networks used by computers in school. • identify other devices connected to the networks. • begin to see why networks are used and how they enable collaboration to occur.	**Databases:** • read and use a simple database to find information • add information to a database	**Word processing:** • use cut, copy and paste to reorder content • use and resize graphics within my work • use spell check to aid my writing **Presentations:** • type text and insert images onto pages • add text effects and move items around to find the best layout **Online collaboration:** • send and reply to online messages such as email • add and open attachments • know not to open messages and attachments from strangers	**Research:** • search online for images and information	**Creating images:** • zoom in to help paint a realistic picture **Video:** • zoom in and out on subjects appropriately • download the video files from the video camera • combine video clips to create a video **Audio:** • re-record an audio recording to improve clarity • download and save a recording

LKS2 ICT /COMPUTING continued

SUBJECT CONTENT……YEAR 4 Pupils should be taught to:

Computer Science	Data	Communication	Digital Literacy & Research	Multimedia
Programming: • test existing programs to see how they could be improved • create a procedure (group of commands) to do a specific task • sequence commands to create a program with a purpose using inputs **How Computers Work:** • explain why there are sometimes different operating systems and application software for the same hardware. • assess whether a piece of software, or app is suitable for a specific purpose. • be familiar with how to purchase apps and can compare apps and PC software.	**Databases:** • create a branching database to sort and organise items • filter and sort records in a database to answer questions • design a questionnaire to collect information, and display the information in a graph or table **Graphs:** • present data in a graph, selecting the most appropriate layout • understand the difference between discrete and continuous data • answer questions relating to graphs, and pose my own questions • use my graph in a document / presentation to share findings with others	**Word processing:** • use different layouts and effects (such as text box, columns, tables, justification, borders, background colour) to refine and improve work **Presentations:** • add a background colour to improve work • add slide transitions and animation effects **Online collaboration:** • know what spam is, and how to deal with it • know how and why to keep personal information private	**Research:** • use more complex search criteria to narrow down searches • describe how search results are ranked • know that not all websites are accurate and can check information using a different site • make notes from information found on websites to present findings	**Creating images:** • group, copy and move shapes within a picture • order shapes / images by sending them to the back / front **Photography:** • crop and / or rotate an image where needed • adjust the colours on a photo **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 **Audio:** • edit an audio recording for a purpose • add an audio recording to other software

LKS2 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.

LKS2 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

LKS2 PERSONAL, SOCIAL AND HEALTH EDUCATION

SUBJECT CONTENT……Pupils should be taught to: ** specific to KS2*

HEALTH AND WELL-BEING	RELATIONSHIPS	LIVING IN THE WIDER WORLD
show an understanding of:- ▪ 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 ▪ 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.*	**show an understanding of:-** ▪ *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.	**show an understanding of:-** ▪ 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 ▪ about the importance of respecting and protecting the environment ▪ about where money comes from, keeping it safe and the importance of managing it effectively.

LKS2 RELIGIOUS EDUCATION YEAR A

SUBJECT CONTENT……Pupils should be taught:

TERM 1	**TERM 2**	**TERM 3**
ISLAM / CHRISTIANITY	**CHRISTIANITY**	**SIKHISM / ISLAM**
What can we learn about Christian symbols and beliefs by visiting churches? *Developing knowledge of Christian worship, differing practices, symbols* Expressions of Belief	**What do Christians believe about Jesus?** *Developing knowledge about the significance of Jesus, key events in the life of Jesus, his teaching and ministry, impact of Jesus on lives of Christians today:* Belief / Authority / Impact of Belief	**What do Sikhs believe about God?** **Why are the Gurus inspirational for Sikhs?** Belief / Authority / Expressions of Belief
How and why is Advent important to Christians? *Developing knowledge of Christmas story, Christian symbols and practices today* Belief / Authority / Expressions of Belief	**What do Christians remember on Palm Sunday?** *Developing knowledge of Palm Sunday in context of Easter, Christian symbols and practices today* Belief / Authority / Expressions of Belief	**Why is Muhammad important to Muslims?** **What do Muslims believe about God?** Belief / Authority / Impact of Belief

LKS2 RELIGIOUS EDUCATION YEAR B

SUBJECT CONTENT……Pupils should be taught:

TERM 1	TERM 2	TERM 3
MULTI-FAITH (ISLAM) / CHRISTIANITY	**CHRISTIANITY**	**SIKHISM**
How and why do religious people show care for others? *Developing knowledge about practices within religious traditions and their links to beliefs and sources. Developing knowledge of similarities between at least 2 religions* Belief / Authority / Impact of Belief	**What do Christians believe about God?** *Developing knowledge of Christian belief in God, meaning of life, life after death and how this affects how Christians feel and act:* Belief / Expressions of Belief / Impact of Belief	**How do Sikhs express their beliefs?** *Developing knowledge about how Sikh beliefs are expressed through worship at the Gurdwara, festivals, symbols used and through actions* Belief / Expressions of Belief / Impact of Belief
What can we learn about Christian faith through studying the lives of Northern Saints? *Demonstrating understanding of the significance of northern saints, then and now* Impact of Belief	**Why is Lent such an important period for Christians?** *Developing knowledge of Lent period, connections to Easter story, Christian symbols and practices today Palm Sunday in context of Easter, Christian symbols and practices today* Belief / Authority / Expressions of Belief	**Why is the mosque important to Muslims? How do Muslims show their faith through actions?** Belief / Expressions of Belief / Impact of Belief

LOWER KS2 SCIENCE

Pupils should:

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

1. Raise their own questions about the world around them.
2. Start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions;
3. Recognise when a simple fair test is necessary and help to decide how to set it up;

- Talk about criteria for grouping, sorting and classifying; and use simple keys.
- Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.
- Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.
- Learn how to use new equipment, such as data loggers, appropriately.
- Collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data.
- Look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. WITH HELP
- Identify new questions arising from the data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done. WITH SUPPORT
- Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.
- Use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences.

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

Sc2	**BIOLOGY**
	PLANTS

1. Be introduced to the relationship between structure and function: the idea that every part has a job to do.
2. Explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction.

NB. Pupils can be introduced to the idea that plants can make their own food, but at this stage they do not need to understand how this happens.

3. (Might) Work scientifically by: comparing the effect of different factors on plant growth, e.g. the amount of light, the amount of fertiliser;
4. Discover how seeds are formed by observing the different stages of plant life cycles over a period of time;
5. Look for patterns in the structure of fruits that relate to how the seeds are dispersed.

(Might) Observe how water is transported in plants, e.g. by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.

ANIMALS INCLUDING HUMANS

1. Continue to learn about the importance of nutrition and should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions.
2. (Might) Work scientifically by: identifying and grouping animals with and without skeletons and observing and comparing their movement
3. Explore ideas about what would happen if humans did not have skeletons
4. (Might) compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat.
5. (Might) research different food groups and how they keep us healthy and design meals based on what they find out.

Sc2	BIOLOGY continued
	LIVING THINGS AND THEIR HABITATS
4. Use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. 5. Identify how the habitat changes throughout the year. 6. Explore possible ways of grouping a wide selection of living things that include animals and flowering plants and non-flowering plants. 7. (Could) Begin to put vertebrate animals into groups such as fish, amphibians, reptiles, birds, and mammals; and invertebrates into snails and slugs, worms, spiders, and insects. *NB: Plants can be grouped into categories such as flowering plants (including grasses) and non-flowering plants, such as ferns and mosses.* 8. Explore examples of human impact (both positive and negative) on environments, e.g., the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation. (Might) Work scientifically by: using and making simple guides or keys to explore and identify local plants and animals; making a guide to local living things; raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.	

Pupils should:

Sc3	CHEMISTRY
	MATERIALS
Compare and group materials together, according to whether they are solids, liquids or gases	
Observe that some materials **change state** when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celcius (°C)	
Identify the part played by **evaporation and condensation** in **the water cycle** and associate the rate of evaporation with temperature	

	THE EARTH (ROCKS; ATMOSPHERE)
Linked with geography, pupils should explore different kinds of rocks and soils, including those in the local environment. 1. Work scientifically by: observing rocks, including those used in buildings and gravestones, 2. Explore how and why they might have changed over time; using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them. 3. (Might) Research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. 4. (Could) explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. 5. Can raise and answer questions about the way soils are formed.	

Pupils should:

Sc4	PHYSICS
	LIGHT
1. Explore what happens when light reflects off a mirror or other reflective surfaces, including playing mirror games to help them to answer questions about how light behaves. 2. Think about why it is important to protect their eyes from bright lights 3. Look for, and measure, shadows, and find out how they are formed and what might cause the shadows to change. *(NB. Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.)* 4. (Might) Work scientifically by: looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.	

Sc4	PHYSICS continued

MOTION AND FORCES
Compare how things move on different surfaces
Notice that some forces need contact between two objects, but magnetic forces can act from a distance

SOUND
Identify how sounds are made, associating some of them with something vibrating Recognising that vibrations from sounds travel through a medium to the ear
Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it
Recognise that sounds get fainter as the distance from the sound source increases

Pupils should:

FORCES AND MAGNETS
1. Observe that magnetic forces can act without direct contact, unlike most forces, where direct contact is necessary (e.g. opening a door, pushing a swing). 2. Explore the behaviour and everyday uses of different magnets (e.g. bar, ring, button and horseshoe). 3. (Might) Work scientifically by: comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions; 4. Explore the strengths of different magnets and finding a fair way to compare them; 5. Sort materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, e.g. the strength of the magnet or which pole faces another; 6. Identify how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.

ELECTRICITY
Identify common appliances that run on electricity
Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
Identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery
Recognise some common conductors and insulators, and associate metals with being good conductors

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;