Y5 Term 1

English	Suspense story (Alex Rider)	Debates – oral outcome	**Maths**	Place value, addition and subtraction

Science: Properties and Changes of Materials

NC objectives from curriculum progression

Children will be taught to:

Scientific Knowledge

*compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets

*give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

*identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

*use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

*know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution

*demonstrate that dissolving, mixing and changes of state are reversible changes

*explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Scientific Enquiry Skills

*with support, answer questions with evidence from different types of scientific enquiry, e.g. comparing life cycles of plants using change over time, surveys and secondary sources.

*with prompting, identify and manage variables, e.g. when exploring the brightness of bulbs.

*following discussion of alternatives, select appropriate equipment, e.g. a thermometer.

*take measurements that are precise as well as accurate, e.g. the amount of sugar which can be dissolved in different temperatures of water.

*know how to process repeat readings, e.g. when investigating the behaviour of components in a circuit.

*start to use labelled diagrams to show more complex outcomes, e.g. demonstrating how we see objects.

*with prompting, use various ways to record complex evidence, e.g. the behaviour of particles in different states of matter and when changing between states.

*use a line graph to record basic data, e.g. length and mass of a baby as it grow.

*with support, display and present key findings from enquiries orally and in writing, e.g. suggesting reasons for similarities and differences between various animals.

*with support, indicate why some results may not be entirely trustworthy, e.g. in relating brightness of bulb to voltage supplied.

*with prompting, write a conclusion using evidence and identifying causal links, e.g. what makes a bulb shine more brightly.

* suggest further relevant comparative or fair tests, e.g. when testing materials for various properties to determine their suitability for an application.

*show how evidence supports a conclusion, e.g. researching gestation periods of various mammals and relating them to adult mass.

Notes and guidance (non-statutory)

Pupils should 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. They should explore reversible changes, including evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes. Pupils should explore changes that are difficult to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda. They should find out about how chemists create new materials, for example, Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinkle-free cotton.

Note: 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 might work scientifically by:

**carrying out tests to answer questions, for example, '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?'*

**They might compare materials in order to make a switch in a circuit.*

*They could observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes.
*They might research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such as polymers, super-sticky and super-thin materials.

History/Geography: Early Islamic Civilisation: What did they achieve?

NC objectives from the curriculum progressions

Children will be taught to:

Historical Knowledge

*learn about significant achievements in the Early Islamic Empire
*learn about the city of Baghdad as the centre of the Early Islamic Empire
*identify this period of history on a chronological timeline, comparing it to other ancient civilisations
*be taught historical vocabulary: civilisation, ancient, AD, BC, century, millennium, caliph, prophet, empire

Historical Concepts

*identify why the empire was able to expand so far and so rapidly
*explore this expansion as part of an overarching theme of imperialism, referring back to the Romans, Anglo-Saxons and Vikings
*evaluate the significance of Early Islamic achievements and their impact on modern life: mathematics, science, literature, philosophy, geography, astronomy, medicine
*make comparisons between life in the Early Islamic Empire and Anglo-Saxon Britain and identify reasons why life in Baghdad was more advanced

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
*write a letter in role, describing life in Baghdad, prioritising and carefully selecting evidence to include
*describe why there is little evidence of early Baghdad left
*draw conclusions from evidence such as pictures, artefacts and writing

Geographical Knowledge

*locate the modern day countries of the early Islamic civilisation on a map
* identify the position and significance of the Equator; and the Southern and Northern Hemispheres; and the Arctic and Antarctic circles

Geographical Understanding

*identify the significance of Baghdad's location of to its wealth and growth (trade routes)
*describe and understand key aspects of physical geography including: climate zones, biomes and vegetation belts
*describe and understand key aspects of human geography, comparing population density/ settlements in Europe and the UK to the Middle East
*identify the relationship between the natural landscape and human settlement patterns

Geographical Enquiry

*use maps, atlases, globes and digital/computer mapping to locate countries of the Middle East
*use maps, atlases, globes and digital/computer mapping to identify physical and human features of the Middle East: landscape and settlements
*use the eight points of the compass, symbols and keys to build their knowledge of the wider world

English activities/links	Maths activities/links	Outdoor learning/ Visits/Visitors
Research skills		Synagogue trip

Art/DT: Art – Islamic architecture: design a mosaic wall

Children will:

Appreciate and Gain Knowledge

*view pictures of Islamic buildings (exteriors an interiors) for example the Alhambra Palace, mosques

*explore the religious symbolism/meaning of the mosaic art: infinity

Research and Design

*research further examples

*use sketch books to record thumbnails of existing designs

*annotate with responses and observations

*develop ideas for own mosaic pattern design (sketching on squared paper)

*use mosaic tiles to 'map out' different ideas and photograph them

Experiment and Create

*learn the necessary skills for working with mosaic materials and tools: mixing mortar, setting tiles within mortar, wiping off excess mortar

*refine skills to produce effective final art work

Evaluate

*express and justify opinions on the architecture and mosaic patterns viewed

*begin to make notes on their progress and how they think they may modify or improve ideas or processes/techniques

*evaluate final outcome, reflecting on design ideas and intentions

ICT: We are internet researchers and evaluators: research and evaluate information in order to produce an Early Islamic Empire Google Slides presentation

Children will be taught:

Computer Science

*how data packets, including web pages, are routed from one computer to another on a separate network, which is also connected to the internet.

Digital Literacy

*about the importance of encrypted (HTTPS) connections when browsing the web and of using strong passwords to protect their identity online.

*about the likely or possible consequences of particular behaviours when using digital technology to search for information, such as using cryptography and passwords.

*to report inappropriate behaviour when using technology in school to their teacher, the network manager or another trusted adult, and that they can discuss any concerns they have with their teacher or other trusted adults in school.

*that they can also report inappropriate behaviour to those running websites which they regularly use, and to ChildLine, CEOP or to the police.

*to evaluate whether particular content, such as a web page, is reliable and whether it has been written from a neutral point of view, without bias.

Information Technology

*to evaluate the quality of information located (text, audio, images and video), looking for bias or questioning assumptions that have been made. BBC Bitesize – Should I trust everything I read on the web?

*to use a common search engine effectively, to search for particular information on the web.

*to use built-in search tools to filter their results, such as by time, location or reading level.

*to use the above skills to be discerning in their selection of information for the content and format of their Ancient Egypt presentation

*how to use features of Google Slides

E-safety – Self-image and Identity; Online Reputation (Project Evolve)

PHSE: You and Me (Relationships and mental health)

Children will be taught:

R2. to recognise what constitutes a positive, healthy relationship and develop the skills to form and maintain positive and healthy relationships

R8. to judge what kind of physical contact is acceptable or unacceptable and how to respond R9. the concept of 'keeping something confidential or secret', when they should or should not agree to this and when it is right to 'break a confidence' or 'share a secret'

H1. what positively and negatively affects their physical, mental and emotional health

H7. to recognise that they may experience conflicting emotions and when they might need to listen to, or overcome these

French: Do you have a pet?

Children will be taught how to:

*repeat, recognise and attempt to spell the eight nouns (including the correct article for each) for pets in French. * tell somebody in French if they have or do not have a pet. * ask somebody else in French if they have a pet. * tell somebody in French the name of their pet. *create a longer phrase using the connectives ET (“and”) or MAIS (“but”)
PE
Indoor PE Fitness & Multi-Skills/Dance (Multi-Ability Focus: Health & Fitness) Outdoor PE Invasion Games (Football/Handball) and Outdoor/Adventurous (Multi-Ability Focus: Health & Fitness)
Music
Music Express: Exploring rhythm and pulse, cyclic patterns Learning to play the violin: Abracadabra
RE: Why do some people think God exists? If God is everywhere, why go to a place of worship?
This unit will enable children to: *outline clearly a Christian understanding of what God is like, using examples and evidence (A2). *make connections between how believers feel about places of worship in different traditions (A3). *outline how and why places of worship fulfil special functions in the lives of believers (A3). *define the terms theist, atheist and agnostic and give examples of statements that reflect these beliefs (B1). *express thoughtful ideas about the impact of believing or not believing in God on someone’s life (B1). *give examples of ways in which believing in God is valuable in the lives of Christians, and ways in which it can be challenging (B2). *select and describe the most important functions of a place of worship for the community (B3). *give examples of how places of worship support believers in difficult times, explaining why this matters to believers (B2). *comment thoughtfully on the value and purpose of places of worship in religious communities (B1). *present different views on why people believe in God or not, including their own ideas (C1). *enquire into what some atheists, agnostics and theists say about God, expressing their own ideas and arguments, using evidence and examples (C1). *present ideas about the importance of people in a place of worship, rather than the place itself (C1). *find out about what believers say about their places of worship (C2).