	To Infinity & Beyond	Polar Expeditions	Shakespeare

Working Scientifically

During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:
- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- Identifying scientific evidence that has been used to support or refute ideas or arguments.

Science

The Earth in Space	Classifying Critters	Life cycles and Fuel for Life

The Earth in Space
- describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- describe the movement of the Moon relative to the Earth
- describe the Sun, Earth and Moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Investigations
What's out there? – Rising stars Explain about the phases of the moon in a creative way by using observational skills. If the moon was stolen like in the film 'Despicable Me' What effect would this have on the Earth? Investigate this problem and demonstrate the effects in a creative way.

Pupils could be introduced to a model of the Sun and Earth that enables them to explain day and night. 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). To 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).

Scientist: Stephen Hawking,

Classifying Critters
Independence and Adaptation
- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals.

Y6
- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals
- give reasons for classifying plants and animals based on specific characteristics.

Investigations
Vegetation – (Rising stars) Grouping and classify, Observation
Why is it important to classify and why is it useful for scientists? Look at Carl Linnaeus see rising stars pg 17
Invisible creatures – Yeast balloon – Investigation on microbes

Scientist: Steven Savage (Brighton based), Carl Linnaeus
Bird count in January

Eco Project – melting of the polar ice caps and global warming

Life cycles and Fuel for Life
Animals including humans Y5
- describe the changes as humans develop to old age.
- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

Y6
- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- describe the ways in which nutrients and water are transported within animals, including humans.

Investigations
How is the heart affected by exercise?
Do taller people have bigger lungs? Do swimmers have bigger lungs than most people – Pattern seeking – Out of puff (rising stars)
Create a plastic lung to explain about how we breathe. – Observation

Scientists: They could find out about the work of naturalists and animal behaviourists, for example, David Attenborough and Jane Goodall.

Eco Project - How do we travel to school and what is the

government doing to reduce carbon emissions?

Forces and Gravity

▪ explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object

Pupils might find out how scientists, for example, Galileo Galilei and Isaac Newton helped to develop the theory of gravitation.

Eco Project – Brighton and Lewes Downs Biosphere – what is this and what can we do?

Reversible and Irreversible changes / Changing State
(Look at planner for Changing state (not gases) and Dissolving to support children

▪ 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
▪ know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
▪ use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
▪ give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
▪ demonstrate that dissolving, mixing and changes of state are reversible changes

Investigations
Group and Classify – Use your loaf – rising stars
Slime Olympics – How far do the different types of slime slide? – fair test

Eco Project – How has the climate changed over the past 60 years?

	To Infinity & Beyond	Polar Expeditions	Shakespeare
Art	**Individual Creative Study Sabrina kaici.** **Painting Form and space** **(moon, planet or star pointillism)** **Using soft pastels to create a planetscape?** Develop a painting from a drawing Carry out preliminary studies, trying out different media and materials and mixing appropriate colours Create imaginative work from a variety of sources e.g. observational drawing, themes, poetry, music Colour Mix and match colours to create atmosphere and light effects Be able to identify primary secondary, complementary and contrasting colours Work with complementary colours	**Individual Artist Study: Ice Paintings: by Xavier Cortada or Antarctic Paintings by Davis Abbey Paige or Mixed media by Frances Hatch** **Painting Perspective** **(Arctic landscapes) additional idea - Penguin portrait)** Develop a painting from a drawing Carry out preliminary studies, trying out different media and materials and mixing appropriate colours Create imaginative work from a variety of sources e.g. observational drawing, themes, poetry, music Colour Mix and match colours to create atmosphere and light effects Be able to identify primary secondary, complementary and contrasting colours Work with complementary colours	**Whole class Artist Study: Banksy** **Printing Graffiti text work and stencilling** **Shape and Space** **(Spellings and word art/explore text types and images that support text meaning. Banksy style depiction of a Shakespeare play)** Create printing blocks by simplifying an initial sketch book idea Use relief or impressed method Create prints with three overlays Work into prints with a range of media e.g. pens, colour pens and paints

	To Infinity & Beyond	Polar Expeditions	Shakespeare
	Pupils should understand the correct technical vocabulary for the projects they are undertaking.		
DT	**Textiles** **Outcome**: Make a space suit or 3D fabric model of rocket including computer aided design **Technical Knowledge** • *that a 3D textiles product can be made from a combination of fabric shapes* • that materials can be combined and mixed to create more useful characteristics • that materials have both functional properties and aesthetic qualities **Design** • indicate the design features of their products that will appeal to intended users • develop a simple design specification to guide their thinking • model their ideas using prototypes and pattern pieces • use computer-aided design to develop and communicate their ideas **Make** • explain their choice of tools and equipment in relation to the skills and techniques they will be using • explain their choice of materials and components according to functional properties and aesthetic qualities • accurately assemble, join and combine materials and components **Evaluate** **Own ideas and products** • evaluate their ideas and products against their original design specification **Existing products** • why materials have been chosen. • how well products achieve their purposes • how sustainable the materials in products are	**Electrical Systems** **Outcome:** Design and make a vehicle to use in Antarctica. **Technical Knowledge** • that mechanical and electrical systems have an input, process and output • how to program a computer to monitor changes in the environment and control their products • *how more complex electrical circuits and components can be used to create functional products* **Design** • describe the purpose of their products • explain how particular parts of their products work • use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • make design decisions, taking account of constraints such as time, resources and cost **Make** **Electrical - vehicle** select tools and equipment suitable for the task • produce appropriate lists of tools, equipment and materials that they need • formulate step-by-step plans as a guide to making • accurately measure, mark out, cut and shape materials and components • use techniques that involve a number of steps **Evaluate** **Own ideas and products** • critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make. **Existing products** • what methods of construction have been used. • how innovative products are	**Food** **Outcome:** Design food tests to identify differences in brand and product quality V's advertising and packaging. **Technical Knowledge** • that a recipe can be adapted by adding or substituting one or more ingredients **Design** • carry out research, using surveys, interviews, questionnaires and web-based resources • identify the needs, wants, preferences and values of particular individuals and groups • generate innovative ideas, drawing on research **Make** • select materials and components suitable for the task • explain their choice of materials and components according to functional properties and aesthetic qualities • accurately assemble, join and combine materials and components **Evaluate** **Own ideas and products** • consider the views of others, including intended users, to improve their work **Existing products** • how well products work • how well products meet user needs and wants. • how much products cost to make

HOLMBUSH PRIMARY ACADEMY

	To Infinity & Beyond	Polar Expeditions	Shakespeare
	Pupils should understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.		
Food Technology	Space food **Technical skill:** Frying, chopping, liquidising. **Food and Nutrition** • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health	Pemmican **Technical skill:** Baking, frying, chopping, mixing. **Food and Nutrition** • how food is processed into ingredients that can be eaten or used in cooking. • that seasons may affect the food available	Food tests to identify differences in brand and product quality V's advertising and packaging. **Technical skill:** Slicing, tasting, comparing. **Food and Nutrition** • how food is processed into ingredients that can be eaten or used in cooking

HOLMBUSH PRIMARY ACADEMY

	To Infinity & Beyond	Polar Expeditions	Shakespeare
History	Key historical skills for KS2: - To develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. - To be able to note connections, contrasts and trends over time and develop the appropriate use of historical terms. - To be able to address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. - To be able to construct informed responses that involve thoughtful selection and organisation of relevant historical information. - To understand how our knowledge of the past is constructed from a range of sources.		
	A local history study – Victorian Brighton	**Antarctic explorers (extra history unit)** Robert Falcon Scott's and Roald Amundsen's race to the South Pole, and Ernest Shackleton's Endurance expedition.	Revision unit of all of KS2's previous units with a particular focus on developing the children's understanding of **how the periods fit together chronologically** and where Shakespeare fits within this.

	To Infinity & Beyond	Polar Expeditions	Shakespeare
Geography	**By the end of Key stage 2** • Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge. **The following objective will be used to help achieve, and provide context for, all the objectives mapped out for Lower Key Stage 2.** **Skills and fieldwork:** • use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied		
	Human and physical geography: • Describe and understand key aspects of: - human geography, including: <u>types of settlement and land use</u>, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water *NB: Those underlined will be covered in Years 3/4, and so should only need revising.*	**Locational knowledge:** ▪ 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). *NB. Night and day should have been covered as part of Science in the Space unit from the Autumn Term.*	**Skills and fieldwork:** ▪ use the eight points (extend to 16 for most able) of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to revise their knowledge of the United Kingdom *(including the Isle of Wight in preparation for the residential and Stratford as a link to Shakespeare)* and develop their knowledge of the wider world *(including the region of France being visited for the residential)*.

	To Infinity & Beyond	Polar Expeditions	Shakespeare
Music	Solar System (Year 5) – LISTEN TO 'The Planets' by Holst, analyse which planet is being represented Listening Science • Listening to music with focus and analysing using musical vocabulary • Relating sound sequences to images • Interpreting images to create descriptive sound sequences • Developing the use of dynamics in a song • Listening to music, focusing on dynamics and texture • Learning a melodic ostinato using staff notation • Developing techniques of performing rap using texture and rhythm • Learning a song with a complex texture • Learning about the sound of the whole tone scale • Listening to music and describing its effects and use of the musical dimensions • Performing a song with expression and with attention to tone and phrasing • Creating a musical background to accompany a poem • Creating and presenting a performance of song, music and poetry Journeys (Year 6) Song cycle performance PSHE • Singing in three-part harmony • Exploring expressive singing in a part-song with echoes • Developing song cycles for performance • Staging a performance with awareness of audience • Singing a pop song with backing harmony • Learning about a song's structure • Learning to sing major and minor note patterns accurately • Learning a pop song with understanding of its structure • Developing a song cycle performance incorporating mixed media • Developing planning, directing and rehearsal skills	Life cycles (Year 5) Structure PSHE • Singing in three parts • Reading a melody in staff notation • Accompanying a song with tuned and unturned instruments • Composing and performing together • Singing in two parts • Combining vocal sounds in performance • Creating a performance using voices and instruments in four parts • Exploring extended vocal techniques • Developing a structure to combine sounds • Creating musical effects using contrasting pitch • Learning about the music of an early opera • Creating descriptive music • Developing a performance with awareness of audience Roots (Year 6) – THIS IS A CHOICE UNIT IF TIME Mini musical performance English • Singing a traditional Ghanaian song • Devising rhythmical actions to music • Developing a performance of a musical • Improvising descriptive music • Singing a traditional children's game song from Ghana • Playing rhythm cycles • Combining rhythm cycles in a percussion piece • Singing call and response songs in two groups • Devising rhythmic movement • Developing a descriptive composition • Planning and structuring pieces to make a finale • Combining songs with rhythmic cycles • Developing and rehearsing for a performance • Performing to an audience	At the movies (Year 5) Composition English • Understanding music narrative • Interpreting notation • Using a storyboard to structure sounds • Learning about the use of sound effects to movies • Exploring and using narrative structure • Composing sound effects to perform with a movie • Identifying changes in tempo and their effects • Exploring and understanding phrase structure of a song melody • Creating and performing a sequence of melodic phrases with a movie • Learning about the use of musical clichés in movie soundtracks • Exploring the effects of music on movies • Using the musical dimensions to create and perform music for a movie • Learning about techniques used in movie soundtracks • Exploring techniques used in movie soundtracks • Creating sounds for a movie, following a timesheet • Working in groups to create descriptive movie music • Evaluating and refining compositions • Learning about using cue scores Class awards (Year 6) – THIS IS A CHOICE UNIT IF TIME Awards show performance Cross-curricular • Learning music for a special occasion • Composing programme music from a visual stimulus • Singing a verse and chorus song • Writing new verses for a rap • Developing a song performance • Performing together • Developing an extended performance • Performing together • Developing a song arrangement • Rehearsing for a performance • Performing together with an awareness of audience

HOLMBUSH PRIMARY ACADEMY

	To Infinity & Beyond	Polar Expeditions	Shakespeare
Computing	Unit 6.1 – We are app planners Domain: Computer Science, Digital Literacy & IT - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Solve problems by decomposing them into smaller parts - Use logical reasoning to explain how some simple algorithms work - Understand computer networks including the internet - Use technology safely, respectfully and responsibly - Recognise un/acceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals - Use search technologies effectively - Appreciate how search results are selected and ranked Unit 6.2 – We are project managers Domain: Computer Science, Digital Literacy - Solve problems by decomposing them into smaller parts - Use technology safely, respectfully and responsibly - Recognise un/acceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Understand the opportunities networks offer for communication and collaboration - Select, use and combine a variety of software (including internet services) on a range of digital devices	Unit 6.3 – We are market researchers Domain: Computer Science, Digital Literacy & IT - Use technology safely, respectfully and responsibly - Recognise un/acceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Understand the opportunities networks offer for communication and collaboration - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals - Collecting, analysing, evaluating and presenting data and information - Use search technologies effectively Unit 6.4 – We are interface designers Domain: Computer Science, Digital Literacy & IT - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Work with various forms of input and output - Use logical reasoning to explain how some simple algorithms work - Use logical reasoning to detect and correct errors in algorithms and programs - Use technology safely, respectfully and responsibly - Recognise un/acceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Understand the opportunities networks offer for communication and collaboration - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals	Unit 6.5 – We are app developers Domain: Computer Science, Digital Literacy & IT - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Use sequence, selection and repetition in programs; work with variables - Work with various forms of input and output - Use logical reasoning to detect and correct errors in algorithms and programs - Use technology safely, respectfully and responsibly - Recognise un/acceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Understand the opportunities networks offer for communication and collaboration - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals Unit 6.6 – We are marketers Domain: Computer Science, Digital Literacy & IT - Understand how networks can provide multiple services, such as the world wide web - Use technology safely, respectfully and responsibly - Recognise un/acceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Understand the opportunities networks offer for communication and collaboration - Select, use and combine a variety of software (including internet services) on a range of digital devices - Appreciate how search results are selected and ranked

Learning and Improving Together Without Limits

HOLMBUSH PRIMARY ACADEMY

To Infinity & Beyond	Polar Expeditions	Shakespeare

Swimming To swim competently, confidently and proficiently over a distance of at least 25 metres. To use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] To perform safe self-rescue in different water-based situations. In order to achieve these objectives, pupils will work towards ASA School Swimming Awards		Only pupils who need extra support to achieve these objectives will have swimming lessons during school time.

PE

To Infinity & Beyond	Polar Expeditions	Shakespeare
Invasion Game Play (Whole Term) • Use different techniques for passing, controlling, dribbling and shooting within games • Use marking, tackling and intercepting to improve defence skills. Plan attacking tactics. **Indoor Athletics** • Develop specific skills in speed bounce, SLJ, STJ, aiming and speed and stamina • Refining techniques for the events used in competition. Target setting to improve scores **Dance 1 – Use Holst's 'The Planets' as stimulus** • Exploring different ways of moving the body to represent shapes. • Understand a variety of choreographic techniques, including canon and repetition. • Understand the terms transitions, phrase and motif. • Choreograph group dances.	**Gymnastics 1: Body Conditioning and Fitness** • Monitoring heart rate and fitness levels. Focus on body control and strength • Monitoring fitness levels and setting targets. Focus on suppleness, stamina and agility **Dance 2 – Use pictures of icebergs etc as stimulus** • Exploring different styles of dance. • Using movements to create own dances. • Apply knowledge of choreographic devices to create interesting pieces of dance. • Justify and evaluate use of different choreographic devices. **Striking & Fielding** • Know and use different ways of bowling and range of fielding skills. • To use and adapt rules, strategies and tactics, using their knowledge of batting and fielding principles. • Become increasingly more competent in a range of striking and fielding skills. • Know how to throw over arm for accuracy and for distance. • To know the importance of bowlers and fielders working together and to apply tactics more effectively. **Game Play** • Demonstrate a range of attacking and defending skills and working well as part of a team. • Finding a variety of games to apply skills. Dodgeball, volleyball, Handball	**Net & Wall** • Develop range and consistency of the skills, especially in net games. • To improve consistency of techniques for different purposes within net games. **Athletics** • Understand pace, stamina and power. Different starts. Take off and landing control. Throwing accuracy and distance. Taking on the role of coach. • Using control, power and sound technique. Leading warm ups. Running over different distances and times. Completing athletics challenges. **Gymnastics 2** • Finding different ways to increase fitness and health. Focus on activity levels and duration. • Finding different ways to increase fitness and health. Focus on heart health and different styles of gymnastics. **OAA** • To choose and apply and adapt strategies used to solve problems. To orientate a map accurately. • To find solutions to challenges set. Create own course and plan how to complete timed challenges.

Learning and Improving Together Without Limits

	To Infinity & Beyond	Polar Expeditions	Shakespeare
Jigsaw PSHcE	**Being me in my World** Development of class charters **Puzzle Outcome**: Class Charter linked to RRS **Celebrating Difference (Y5 Planning)** • I can explain the differences between direct and indirect types of bullying • I know some ways to encourage children who use bullying behaviours to make other choices and know how to support children who are being bullied **Puzzle Outcome**: Hall of Fame Display	**Dreams and Goals (Y5 Planning)** • I can describe the dreams and goals of a young person in a culture different from mine • and can reflect on how these relate to my own **Puzzle Outcome**: Garden of Dreams and Goals **Healthy Me (Y5 Planning)** • I can describe the different roles food can play in people's lives and can explain how people can develop eating problems (disorders) relating to body image pressures • I respect and value my body **Puzzle Outcome**: The Healthy, Happy Me Recipe Book	**Relationships (Y5 Planning)** • I can explain how to stay safe when using technology to communicate with my friends • I can recognise and resist pressures to use technology in ways that may be risky or cause harm to myself or others **Puzzle Outcome**: The Relationship Fiesta **Changing Me (Year 5)** • I can describe how boys' and girls' bodies change during puberty • I can express how I feel about the changes that will happen to me during puberty **Changing Me (Year 6)** • I can describe how a baby develops from conception through the nine months of pregnancy, and how it is born • I recognise how I feel when I reflect on the development and birth of a baby **Puzzle Outcome**: Tree of Change Display

HOLMBUSH PRIMARY ACADEMY

	To Infinity & Beyond	Polar Expeditions	Shakespeare
Discovery RE	**Year 5 Planning** **Hinduism** **Believing/behaving** *What is the best way for a Hindu to show commitment to God?* AT1 B Practices and ways of life AT2 F Values and commitments **Christianity** **Believing** *Is the Christmas story true?* AT1A Beliefs, teachings and sources AT2 E Meaning, purpose and truth	**Year 5 Planning** **Hinduism** **Believing/behaving** *How can Brahman be everywhere and in everything?* AT1A Beliefs, teachings and sources AT2 E Meaning, purpose and truth **Christianity** **Believing** *Did God intend Jesus to be crucified and if so was Jesus aware of this?* AT1A Beliefs, teachings and sources AT2 E Meaning, purpose and truth	**Year 5 Planning** **Hinduism** **Believing/behaving** *Do beliefs in karma, samsara and moksha help Hindus lead good lives?* AT1B Practices and ways of life AT2 E Meaning, purpose and truth **Christianity** **Believing/behaving** *What is the best way for a Christian to show commitment to God?* AT1B Practices and ways of life AT2 F Values and commitments

		Polar Expeditions	**Shakespeare**
MFL	• 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.		
	German	French	Spanish

English	
Reading – Word	Pupils should be taught to: • apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in English Appendix 1, both to read aloud and to understand the meaning of new words that they meet.

Reading Comprehension	Pupils should be taught to:
	• maintain positive attitudes to reading and understanding of what they read by:
	   o continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
	   o reading books that are structured in different ways and reading for a range of purposes
	   o increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions
	   o recommending books that they have read to their peers, giving reasons for their choices
	   o identifying and discussing themes and conventions in and across a wide range of writing
	   o making comparisons within and across books
	   o learning a wider range of poetry by heart
	   o preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience
	• understand what they read by:
	   o checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
	   o asking questions to improve their understanding
	   o drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
	   o predicting what might happen from details stated and implied
	   o summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
	   o identifying how language, structure and presentation contribute to meaning
	• discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
	• distinguish between statements of fact and opinion
	• retrieve, record and present information from non-fiction
	• participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously
	• explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
	• provide reasoned justifications for their views.

English

Writing - Spelling	**Spelling (see English Appendix 1)** Pupils should be taught to: • use further prefixes and suffixes and understand the guidance for adding them • spell some words with 'silent' letters [for example, knight, psalm, solemn] • continue to distinguish between homophones and other words which are often confused • use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically, as listed in English Appendix 1 • use dictionaries to check the spelling and meaning of words • use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary • use a thesaurus.
Writing - Handwriting	write legibly, fluently and with increasing speed by: • choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters • choosing the writing implement that is best suited for a task.
Writing - Composition	• plan their writing by: o identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own o noting and developing initial ideas, drawing on reading and research where necessary o in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed • draft and write by: o selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning o in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action o précising longer passages o using a wide range of devices to build cohesion within and across paragraphs o using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining] • evaluate and edit by: o assessing the effectiveness of their own and others' writing o proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning o ensuring the consistent and correct use of tense throughout a piece of writing o ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register • proof-read for spelling and punctuation errors • perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.

English

Writing – Vocab, grammar & punctuation

Pupils should be taught to:

- develop their understanding of the concepts set out in English Appendix 2 by:
  - recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
  - using passive verbs to affect the presentation of information in a sentence
  - using the perfect form of verbs to mark relationships of time and cause
  - using expanded noun phrases to convey complicated information concisely
  - using modal verbs or adverbs to indicate degrees of possibility
  - using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
  - learning the grammar for years 5 and 6 in English Appendix 2
- indicate grammatical and other features by:
  - using commas to clarify meaning or avoid ambiguity in writing
  - using hyphens to avoid ambiguity
  - using brackets, dashes or commas to indicate parenthesis
  - using semi-colons, colons or dashes to mark boundaries between independent clauses
  - using a colon to introduce a list
  - punctuating bullet points consistently
- use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading.

HOLMBUSH PRIMARY ACADEMY

Maths – Year 5	
Number & Place Value	Pupils should be taught to: • read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number problems and practical problems that involve all of the above read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
+ & -	• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
X & ÷	• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • know and use the vocabulary of prime numbers, prime factors and composite (non- prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • multiply and divide numbers mentally drawing upon known facts • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) • solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

HOLMBUSH PRIMARY ACADEMY

Maths – Year 5

½, decimals, %

- compare and order fractions whose denominators are all multiples of the same number
- identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$]
- add and subtract fractions with the same denominator and denominators that are multiples of the same number
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]
- recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- round decimals with two decimal places to the nearest whole number and to one decimal place
- read, write, order and compare numbers with up to three decimal places
- solve problems involving number up to three decimal places
- recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.

HOLMBUSH PRIMARY ACADEMY

	Maths – Year 5
Measurement	• convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes • estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] • solve problems involving converting between units of time • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Shape	• identify 3-D shapes, including cubes and other cuboids, from 2-D representations
	• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
	• draw given angles, and measure them in degrees (^{o})
	• identify:
	    o angles at a point and one whole turn (total 360°)
	    o angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)
	    o other multiples of 90°
	• use the properties of rectangles to deduce related facts and find missing lengths and angles
	• distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

⇩	• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
Statistics	• solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables.

HOLMBUSH PRIMARY ACADEMY

	Maths – Year 6
Number & Place Value	Pupils should be taught to: • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across zero • solve number and practical problems that involve all of the above.
X & ÷ + & -	• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • perform mental calculations, including with mixed operations and large numbers • identify common factors, common multiples and prime numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
½, decimals, %	• use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions > 1 • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [f o r e x a m p l e , $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] • divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] • identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • multiply one-digit numbers with up to two decimal places by whole numbers • use written division methods in cases where the answer has up to two decimal places • solve problems which require answers to be rounded to specified degrees of accuracy • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Maths – Year 6

Ratio & Proportion	• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
Algebra	• use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables.
Measurement	• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places • convert between miles and kilometres • recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3].

Maths – Year 6

Shape	• draw 2-D shapes using given dimensions and angles • recognise, describe and build simple 3-D shapes, including making nets • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. •
⤵	• describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Statistics	• interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average.