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| **Year: 6****Summer 2** | **St. Joseph’s Curriculum Planning** |
| **Subject** | **National Curriculum Objectives** |
| Mathematics | * Revise equivalence simplifying fractions and changing improper fractions into mixed numbers and vice versa; revise adding and subtracting fractions with different denominators, including those which give answers greater than 1; revise multiplying pairs of fractions and multiplying and dividing fractions by whole numbers; solving problems involving ratios; read intermediate points off scales.
* Revise properties and classification of 2D shapes, drawing 2D shapes using ruler, protractor and compasses, parts of a circle and angles in polygons; revise calculating missing angles by knowing angle facts; use a protractor to measure and draw angles in degrees; identify and name acute, right, obtuse and reflex angles; understand perimeter, area and volume; find the perimeter of rectangles, find the area of rectangles, parallelograms and triangles, and find the volumes of cubes and cuboids; revise reading and interpreting different types of data display.
* Use mathematical reasoning to investigate and solve problems, and to estimate and predict; solve problems using doubling, solve calculations with enormous numbers; find out about famous mathematicians including Brahmagupta and John Napier and use their different methods to multiply; use lattice multiplication to solve multiplications of 2-, 3- and 4-digit numbers; begin to compare historical multiplication methods.
* Explore binary numbers; solve mathematical puzzles; including using multiplication facts, find digital roots and look for patterns; explore Fibonacci sequences and Pythagoras' theorem.
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| English (Spoken) | * listen and respond appropriately to adults and their peers
* ask relevant questions to extend their understanding and knowledge
* use relevant strategies to build their vocabulary
* articulate and justify answers, arguments and opinions
* give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
* maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
* use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
* speak audibly and fluently with an increasing command of Standard English
* participate in discussions, presentations, performances, role play, improvisations and debates
* gain, maintain and monitor the interest of the listener(s)
* consider and evaluate different viewpoints, attending to and building on the contributions of others
* select and use appropriate registers for effective communication.
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| English (Reading) | * apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), both to read aloud and to understand the meaning of new words that they meet.
* continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks.
* reading books that are structured in different ways and reading for a range of purposes.
* 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 English – key stages 1 and 2 34 Statutory requirements.
* recommending books that they have read to their peers, giving reasons for their choices.
* identifying and discussing themes and conventions in and across a wide range of writing.
* making comparisons within and across books.
* learning a wider range of poetry by heart.
* 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.
* checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context.
* asking questions to improve their understanding
* drawing inferences such as inferring characters’ feelings, thoughts and motives from their actions, and justifying inferences with evidence.
* predicting what might happen from details stated and implied.
* summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.
* 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.
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| English (Writing)Cracking WritingUnit 3Unit 9 | * use further prefixes and suffixes and understand the guidance for adding them
* 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.
* 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.
* identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
* noting and developing initial ideas, drawing on reading and research where necessary
* in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed
* selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
* in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
* using a wide range of devices to build cohesion within and across paragraphs
* assessing the effectiveness of their own and others’ writing
* proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
* ensuring the consistent and correct use of tense throughout a piece of writing
* 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.
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| English (Vocabulary, Grammar and Punctuation) | * using the perfect form of verbs to mark relationships of time and cause
* using modal verbs or adverbs to indicate degrees of possibility
* using relative clauses beginning with who, which, where, when, whose, thator with an implied (i.e. omitted) relative pronoun
* learning the grammar for years 5 and 6 in English Appendix 2
* using commas to clarify meaning or avoid ambiguity in writing
* using semi-colons, colons or dashes to mark boundaries between independent clauses
* using a colon to introduce a list
* use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading.
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| Science(Scientists and inventors). | * Share facts about Stephen Hawking’s life and work.
* Set up an enquiry into the effects of black holes.
* Draw a diagram of their observations from an enquiry into black holes.
* Give facts about Libbie Hyman’s life and work.
* Describe the characteristics of invertebrates.
* Identify definitions for vocabulary to do with DNA and inheritance.
* Create a model of a DNA molecule.
* Describe Alexander Fleming’s discovery of penicillin. Construct a scatter graph from a table of results.
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| RE(Called to Serve) | * Understand that we are all called to be disciples and reflect on our responses to this invitation.
* Understand what the Sacrament of Confirmation does for us and reflect on how we could use the gifts of the Holy Spirit.
* Know about the Sacrament of Marriage and reflect on the importance of this Sacrament.
* Know about the Sacrament of Holy Orders and reflect on this special way to serve God and others.
* Understand that there are many ways to serve and reflect on a variety of ways to help others.
* Understand how some people respond to God’s call and reflect on how God was able to use them.
* Understand what it means to be a disciple now and reflect on ways to use your gifts now and in the future.
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| Physical Education (P.E) | * Use running, jumping, throwing and catching in isolation and in combination.
* Play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending.
* Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics].
* Perform dances using a range of movement patterns.
* Take part in outdoor and adventurous activity challenges both individually and within a team.
* Compare their performances with previous ones and demonstrate improvement to achieve their personal best.
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| I.C.T | * Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
* Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
* Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
* Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
* Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
* Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
* Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
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| History(The Maya Civilisation) | * Develop a chronologically secure knowledge and understanding of world history, establishing clear narratives within and across the periods they study by learning about the Maya civilisation and understanding who they were and when and where they lived.
* Construct informed responses that involve thoughtful selection and organisation of relevant historical information by learning about the religious beliefs and practices of the Maya people and the gods they believed in.
* Construct informed responses that involve thoughtful selection and organisation of relevant historical information by learning about how the Maya invented and used their calendars and number system.
* Understand how our knowledge of the past is constructed from a range of sources and that different versions of past events may exist, giving some reasons for this by identifying and using sources of evidence to learn about the Maya cities and some of the people who explored and documented them.
* Regularly address and sometimes devise historically valid questions about change, cause, similarity and difference and significance through learning about the Mayan writing system.
* Note connections, contrasts and trends over time and develop the appropriate use of historical terms by learning about the food the ancient Maya people ate and its religious and cultural significance.
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| Geography | N/A |
| Art and Design | * Create sketch books to record observations and use them to review and revisit ideas.
* Improve mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay].
* Learn about great artists, architects and designers in history.
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| Design and Technology | Design * 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.

Make * 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.

Evaluate * 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 Technical knowledge.
* apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
* understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
* understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
* apply their understanding of computing to program, monitor and control their products.
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| Music | * 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.
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| M.F.L | N/A |
| P.H.S.E(Respecting Rights) | * Explain that there are basic human rights that all people share. Understand that children have their own rights.
* Understand that human rights are universal and cannot be taken away.
* Recognise that there are people across the world whose rights are not met.
* Understand the importance of being rights-respecting citizens. Identify that ideas about human rights change.
* Explain what a human rights activist is and does.
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