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| **Logo  Description automatically generated** | **Logo, company name  Description automatically generated** | Topic Overview KS2 (Year 5) - Autumn 2 2021 |

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| **Key Texts English** | Matilda by Roald Dahl | | | | | | | |
| **Subject** | ***Science*** | ***Computing*** | ***Geography*** | ***History*** | ***Art & Design*** | ***Design & Technology*** | ***MFL*** | ***RE*** |
| NC  Objectives / links | Pupils should be taught to:  - explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object  - identify the effects of air resistance, water resistance and friction, that act between moving surfaces  - recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect | Pupils should be taught to:  - use technology safely, respectfully and responsibly;  - 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 |  |  |  |  | Pupils should be taught to:  - 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\* | Pupils should be taught to:  - Describe and understand links between stories and other aspects of the Sikh communities, responding thoughtfully to beliefs and teachings that arise from them;  - Describe and make connections between different features of the Sikh religion and other world views, discovering more about prayer, celebrations, worship, pilgrimages and the rituals which mark important points in life. |

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| **Week/session** | * Lesson QfL (Learning Intentions / Lesson Titles) * Further QfLs linked to learning activities (additional questions for differentiated learning) * **Opportunities for Sparkle (see separate suggestions)** | | | | | | | |
|  | ***Science*** | ***Computing*** | ***Geography*** | ***History*** | ***Art & Design*** | ***Design & Technology*** | ***MFL*** | ***RE*** |
| **Big Question** | ***What effects our movement on planet Earth?*** | ***How can I apply algorithms?*** | ***How does life in India compare to life in the UK?*** |  |  | ***What is savoury tooth?***  **SPARKLE**: **Pizza making locally** | ***Numbers***  ***Fruits*** | ***What does it mean to be a Sikh?*** |
| **Week 1** | **Why do Australians not fall from the planet?**  Who was Sir Issac Newton and Galileo Galilei?  What is gravity?  What are forces? | [**How**](https://app.discoveryeducation.co.uk/learn/player/EB99379B-277F-441B-BD23-3B88E5B3A5CB) **do algorithms help print and write text?**  What is python?  What is an algorithm?  Why is writing text important? | **How does the Ganges provide a living for people in India?**  Where is the Ganges?  How many countries does The Ganges cover?  Is there a religious link to The Ganges? | **What happens if you don’t measure ingredients?**  Does the amount of ingredients effect the outcome of cooking?  How do you measure ingredients accurately? |  | **Why is Amritsar a special place for Sikhs?**  What do Sikhs do on their pilgrimage to The Golden Temple?  Which is the most important place in Amritsar?  How is the water surrounding the Golden Temple symbolic? |
| **Week 2** | **How does a parachute stop us from falling?**  What is air resistance?  How can the rate at which objects falls increase or decrease? | **How do algorithms help solve simple calculations?**  What algorithms are used in Maths?  How can python improve the speed of a calculation? | **What foods are popular in India?**  How are spices used in India?  What foods are grown in India?  What main foods are eaten in India? | **How is bread made?**  What is yeast and how does it work?  Is yeast alive?  How do I stay safe when using an oven? | **How do we say numbers 1-10 in Spanish?**  Is the Spanish number system the same as the English?  Do any of the words sound similar to English words? |  |
| **Week 3** | **Why do cargo ships not sink?**  How does the shape of an object help it to float?  What is up thrust?  How is buoyancy used? | **What are inputs and variables?**  How can inputs and variables help follow commands?  Why is selection and input useful when designing a quiz? | **What cultural celebrations happen in India?**  How do cultural celebrations improve tourism?  How are geographical features important in cultural celebrations? | **Sweet or sour?**  How do the ingredients alter our taste buds**?**  What are spices?  How do we know what foods are sweet and sour? |  | **When is the Langar used and how is it an example of Sewa?**  How is Sewa performed?  What is the difference between Daswandh and dan?  How can Sewa be performed? |
| **Week 4** | **Which surfaces are the most slippery in the school?**  Does the material the floor is made from affect how much friction there is?  Where around the school should children walk slow? | **How can variables help calculate how much things will cost?**  Why is coding useful when completing everyday tasks? | **How important is trade in India?**  what items are traded in India?  What trade routes exist to and from India? | **How can vegetables be chopped safety?**  Is there a correct way of chopping?  Why are different coloured boards used when chopping? | **What are common fruits found in Spain?**  Why do fruits have different words in different countries?  Do any Spanish fruits sound the same as English? |  |
| **Week 5** | **Which mechanisms help us to lift heavy objects?**  What is a lever?  What is a pully?  What are gears?  How do these mechanisms work? | **How can python be used to create a quiz?**  What happens when variables are combined?  How can python be used to design questions? | **What impact does India’s large population have?**  What is India’s population?  How has India’s population changed over time?  Is there any risk factors for having high population? | **What is the history of a sausage roll?**  Who created the sausage roll?  What ingredients make the best sausage roll?  Why is the shape of a sausage roll significant? |  |  |
| **Week 6** | **What is magnetism?**  Why are only certain materials magnetic?  How do objects attract and repel one another? | **Why is debugging important?**  [How can coding be used to fix mistakes?](https://app.discoveryeducation.co.uk/learn/player/EF5EB5D5-3895-4A11-B948-4BB124A4F8D8" \o "Debugging: simple Python)  What does it mean when there is a bug in a code? | **How important is the textile industry in India?**  What is the history of textiles in India?  How are dyes sourced and used in textile production?  What is a loom and how is it used? | **What makes a traditional savoury scone?**  Are scones bread?  How does whisking and beating increase the size of scones? | **(cont.) What are common fruits found in Spain?**  Why do fruits have different words in different countries?  Do any Spanish fruits sound the same as English? |  |
| **Week 7** | Christmas Week | Christmas Week | Christmas Week | Christmas Week |  | Christmas Week |