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

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| **Key Texts English**  | The Miraculous Journey of Edward Tulane by Kate DiCamillo |
| **Subject** | ***Science*** | ***Computing*** | ***Geography*** | ***History*** | ***Art & Design*** | ***Design & Technology*** | ***MFL*** | ***RE/PSHE*** |
| NCObjectives / links | Pupils should be taught to:-plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary- take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate - record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs - use test results to make predictions to set up further comparative and fair tests.- report 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 – identify scientific evidence that has been used to support or refute ideas or arguments. | 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:-understand climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle -understand 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 |  |  | Pupils should be taught to:-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. | 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: |

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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)**
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|  | ***Science*** | ***Computing*** | ***Geography*** | ***History*** | ***Art & Design*** | ***Design & Technology*** | ***MFL*** | ***RE*** |
| **Big Question** | ***What is the purpose of having different materials?*** | ***How can music be created using technology?*** | ***How does flooding impact a community?*** |  |  | ***What makes the best habitat for a bird?*** | ***How do we greet people in Spanish?*** | ***What are British Values?*** |
| **Week 1** | **What is the best material for keeping food at a certain temperature?**What is insulator?How is temperature measured? | **What are musical algorithms?**What is the purpose musical micro:bit program?What is an algorithm? | **What is the water cycle?**Why do we live around rivers?Why doesn’t it rain all the time?What is transpiration? Why doesn’t the whole ocean evaporate? | **What is a design specification?**What is a bird box?What it the purpose of the bird box?  |  | **What are British Values?**What can we learn about British values?How do British Values relate to Britain?What is Rule of Law? |
| **Week 2** | **What material is the most environmentally friendly?**Which is the best food storage?What materials are best for the environment?What are micro-plastics? | **How can musical programming be** debugged? How to bugs impact on programs?How can existing knowledge improve programs? | **What is flooding?**What different types of flooding are there?How is coastal flooding different?What is erosion? | **What materials are best for building?**How can we test materials?Why are the properties of materials important? | **What are common Spanish greetings?**How do we greet in Spanish?Is there different words for male and females? |  |
| **Week 3** | **Why is electricity dangerous?**What are insulators and conductors?How can we protect ourselves from electrical equipment? | **What are musical gestures?**How are algorithms analysed and modified?Why is identifying patterns important?What is repetition and selection? | **How can we plan and prepare for a flood?** What is a flood kit and flood plan?How do we evaluate our flood risk?What do flood warning levels mean? | **Why do we brainstorm?**What does trial and error mean?Why is more than one design crucial?How can a mood boards present ideas? |  | **How can British values help me?**What is Tolerance and Respect?Who is helped by British Values?Why do British Values exist? |
| **Week 4** | **What are the properties of materials?**What does soluble mean?Which materials dissolve in liquid the quickest?How does a sugar cube change in water? | **How can music be controlled with inputs?**What is the difference between an input and output?How can an accelerometer be applied? | **What are the dangers of flooding?**What impact can flood water have on livelihoods?What are the dangers of entering flood water?Where does flooding happen? | **How are bird boxes built?**What materials are needed to build?How are bird boxes assembled? | **How do we show the time of day?**What greeting words are used for morning, afternoon and night?Is there a word used for any time of day? |  |
| **Week 5** | **Do all materials stretch in the same way?**What is elastic?Why do materials stretch do different lengths?Which material is the most flexible? | **How can programs be modified to meet given criteria?**How can micro:bit be evaluated as a musical device? | **How do towns recover from flooding?**What services help with recovery?What other effects does flooding have? | **Why is camouflage significant?** What is camouflage?How can this protect species of birds? |  | **Is democracy useful for everyone?**What is democracy?Does individual liberty work alongside democracy? |
| **Week 6** | **Are changes to materials reversible?**What are reversible and irreversible changes?How do materials change when burnt?  | **How can musical micro:bit skills be applied?**What are the main skills using the program?What might these skills be used for? | **How can flooding be reduced?**What is a catchment?What is a flood scheme?What is resistance and resilience? | **What went worked and what didn’t?**Why is evaluating a product necessary?How do we evaluate and critic? | **How do we say our name in Spanish?**How do we ask someone what their name is?How can we answer this question? |  |