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| Year 4  Topic to be covered: Around the world in 80 days  Spring Term 2  DT Focus  Design a form of transportation to travel the world |
| Vocabulary  Design. Flight, prototype, plan, build, template, prototype, construct, evaluate, create, scale, produce, model, |
| People  Inventors: wright brothers |
| Places  Bentley- designs  America  Manchester aiport  Liverpool airport  Avro heritage museum |
| Events  Wilbur and Orville Wright were American inventors and pioneers of aviation. In 1903 the Wright brothers achieved the first powered, sustained and controlled airplane flight; they surpassed their own milestone two years later when they built and flew the first fully practical airplane |
| Knowledge and Skills- Basic Level |
| Knowledge   * Can I study the work of the Wright Brothers using the information I have been given? * Can I use research to inform the design of a mode of transportation to travel the world? * Can I evaluate my ideas and products against a given criteria? |
| Skills   * Can I design my own round the world transportation using given designs to support my ideas? * Can I draw simple cross sections to show my designs? * Can I begin to build my own prototypes of my invention by following simple guidelines and instructions? * Can I use a small selection of tools and equipment to build my prototype? * Can I use simple construction material? |
| Knowledge and skills- Core Intermediate level |
| Knowledge   * Can I study the work of the Wright Brothers? * Can I use research and develop design criteria to inform the design of a mode of transportation to travel the world? * Can I evaluate my ideas and products against my own design criteria and consider the views of others to improve my work ? |
| Skills   * Can I design my own round the world transportation? * Can I draw cross sections and exploded diagrams to show my designs? * Can I begin to build my own prototypes of my invention? * Can I use a wide range of tools and equipment to build my prototype? * Can I use construction material with confidence? |
| Knowledge and Skills- Advanced Level |
| Knowledge   * Can I study the work of the Wright Brothers and compare to other engineers? * Can I use research and develop design criteria to inform the design of a mode of transportation to travel the world using a range of sources to support my evidence? * Can I evaluate my ideas and products against my own design criteria and consider the views of others to improve my work and develop a further design of my improved transportation? |
| Skills   * Can I design my own round the world transportation in detail and with accuracy using research to support my ideas? * Can I draw detailed and accurate cross sections and exploded diagrams to show my designs? * Can I build my own prototypes of my invention with accuracy? * Can I use a wide range of tools and equipment accuracy and precisely to build my prototype in detail? * Can I use wide range of construction material with confidence? |