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| **St Bartholomew’s Knowledge Organiser**  **Design Technology** | **Class 3** | **Summer 2 DT–**  **Year 2021-2022** | ***Mechanical Systems*** |
| **What we will learn:** | | **Success Criteria:** | |
| In this unit you will learn to;   * know that all moving things have kinetic energy * know that kinetic energy is the energy that something (an object or person) has by being in motion, eg: the energy that a swing has to keep on moving; any object in motion is using kinetic energy * design a shape that reduces air resistance * drawing a net to create a structure from * choose shapes that increase or decrease the speed as a result of air resistance * add graphics to personalise my design * to make a model based on a chosen design * to assemble and test my completed product * to remember that smaller shapes create less air resistance and can move faster through the air * to evaluate the speed of my design | | * Designing a shape that is suitable for the project and making some attempt to reduce air resistance through the design of the shape * Conducting the trial accurately and drawing conclusions and improvements from the results | |
| **Important Vocabulary** | |
| **Aesthetic – how a product or object looks**  **Air resistance – the level of drag on an object as it is forced through the air**  **Design criteria – to help designers to focus their ideas and test the success of them**  **Function – the purpose of an object, or how the object works**  **Graphics – images which are designed to explain or advertise something**  **Kinetic energy – the energy that causes an object to move**  **Mechanism – the parts of an object that move together as part of a machine**  **Net - a flat 2D shape, that becomes a 3D shape once assembled**  **Structure – something that has been made and put together and can usually stand on its own** | |