Our DT Curriculum gives children the opportunity to develop skills, knowledge and understanding through designing and making functional products for a range of different users. They learn about key inventions and designers. Children are encouraged to think creatively and produce innovative designs as they explore the designed and made world in which they live.

Inspiring and enabling our school community to live life to the full

YEAR 3

Subject: DT
Unit: Mechanisms - Moving Monsters

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:	**Key Vocabulary taught in this unit:**
- Year 1 – Learning about levers when making a pop-up card - Year 1 - Observing an adult using a glue gun to join materials - Year 1 and 2 - How to cut and fold card carefully - Year 2 - How to use prototypes/ pre-made systems to test prior to making	Pneumatics, pressure, compressed air, system, syringe, tubing, lever, prototype

Intent: What do we want the children to know, be able to do by the time they complete this unit?

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 - Design a pneumatic dragon to scare away Lord Pellinore.

Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design - Draw and annotate a picture of their moving monster. Plan the order of work needed to make their dragon.
Make a simple paper prototype to trial the addition of decorative features.

Make Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Cut (shapes, fringing), score and fold card accurately (eg. nets for 3-d shapes, including those with curved edges) Use a glue gun with 1:1 supervision to secure the syringe part of their pneumatic system.

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 – Use strong card for structure of monster; syringes, tubing and levers to create their pneumatic system and thinner card, textiles for their decorations.

Evaluate Investigate and analyse a range of existing products - Investigate use of air power and different systems

Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work -Recognise what isn't working and suggest a modification.

Understand how key events and individuals in design and technology have helped shape the world- Learn about Dunlop pneumatic tyres and the develop of air power

Technical knowledge Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand how to make their monster move with the use of a pneumatic system – using a balloon and syringe.

Impact / Outcome: What will the final product / result be?

Design brief: Design and make a pneumatic dragon to guard treasure
Children will make a moving monster, using a pneumatic system to move, themed on their class text 'The Legends of King Arthur'.

P4C Inquiry (where appropriate) n/a