Eversley Primary School– Knowledge Organiser

Design & Technology	Materials & Construction	Year 1	Spring Term

Statutory Requirements

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria
- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

Experiences
(e.g. chairs)

- Investigate different existing ideas and products for similar uses
- Investigate own ways of making this type of product.
- Create own design ideas to meet needs of target market/purpose
- Practice using practical skills safely and investigate best practice e.g. how will I join these corners? Which glue works best? How can I make it stronger?
- Make basic product and evaluate to decide on improvements for making a unique final design.
- Use CAD (e.g. make a template using purple mash)
- Make own final product with improvements and evaluate

Materials & Construction Opportunities

- Cut materials safely using tools provided.
- Measure and mark out to the nearest centimetre.
- Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
- Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen and join)
- Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.

Key Vocabulary & Knowledge (Materials & Construction

Research	Finding out ideas and/or information
Existing products	Products which have already been made.
Design	Thinking and creating ideas to solve a problem or meet a purpose
Components	Parts of something which together make a whole.
Functional	To serve a certain purpose
Aesthetics	Things to make products looks nice
Prototype / mock-up	A trial/test of a product before the final version.
Target Market	A group of people who will benefit/use the product.
Design specification	A list of criteria the final product should meet to be successful.
Evaluate	To check and make decisions throughout the design and making process are going to plan. To judge the quality of the final product

Some practical techniques

Cutting

Folding

Scoring

Rolling

Slots & cut outs