



# Year 4 - Spring 1 - Design & Technology - Shell Structures

## What I already know...

Children will have had experience of using different cutting, joining and finishing techniques with paper and card.

They will have a basic understanding of 2D and 3D shapes.

## Key Vocabulary

Shell structure An outer box or packaging

net A 2D shape which can be folded to make a 3D shape

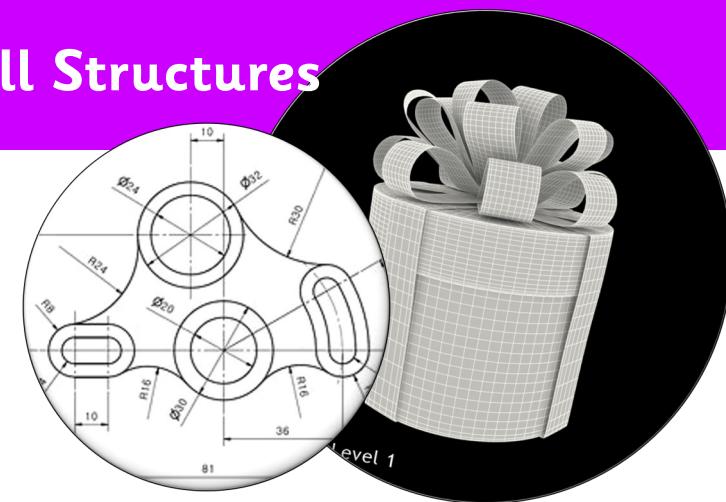
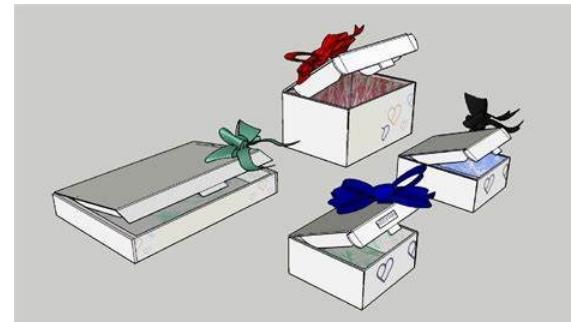
scoring Marking over lines to help create sharp neat folds.

CAD Computer Aided Design. - using computers to design a product

accuracy Measuring, cutting and working carefully to ensure the product works and is

## What I will learn...

- How to use a computer design program to create nets.
- How nets can be used to create 3D shapes
- How to strengthen and stiffen the boxes.
- To evaluate a range of existing box and packaging designs.
- To help to create a design brief.
- To design a box which fulfills a design brief.
- To use CAD to help to create a product.
- To use scoring and cutting techniques.
- To evaluate their own product.



## Making a difference at The Merton & beyond

Children will learn the skills of computer aided design, using a laptop programme to design a 3D net, which can be printed and folded to make a 3D shape design.

As this will be taught in the run up to Easter, children will choose Easter themed designs to add to carefully about the positioning and whether it needs rotating for when the box is folded.

## D&T Skills

To apply their understanding of how to strengthen, stiffen and reinforce more complex structures