## What skills do I already possess?

• Experience of using different joining, cutting and finishing techniques with paper and card.
• A basic understanding of 2-D and 3-D shapes in mathematics and the physical properties and everyday uses of materials in science.

*Design Technologists are INVENTORS!*

*Inventors look for problems so that they can plan, design, make and evaluate solutions to make the world better.*

## Technical vocabulary

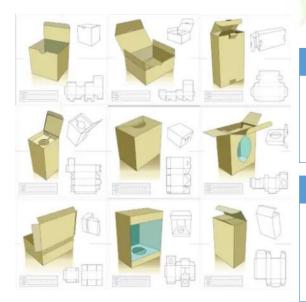| | |
|---|---|
| CAD | Computer assisted design. Using computers to support in the designing element of DT |
| Three dimensional (3D) | A shape which is not flat and can be measured by length, width and depth. |
| Corrugating | Zigzag design to give support and rigidity. |
| Scoring | Cut or scratch a line on a surface |
| Graphics | The use of digital images. |
| Prototype | A first design to check to see how it looks/works. |

## Shell structures in use

When we go to the shops, we will see lots of examples of shell structures which have been designed using CAD. Cereal, biscuits, fruit and other foods are often sold to use in cardboard boxes. These are all examples of shell structures.



## Computer Assisted Design

Computer assisted design (CAD) is the use of software to create designs. We can use software such as Microsoft Word and TechSoft to create designs using shapes and graphics.

## What will I be able to do by the end of the unit?

• I will be able to build a successful shell structure.
• I will know how to use CAD (computer assisted design) to create prototypes and finished products.
• I will understand the importance of strengthening my design to make it suitable for purpose.



Single face board
Single wall board
Double wall board
Triple wall board

Corrugating