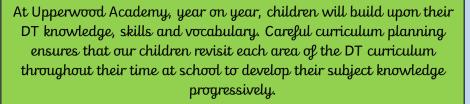


Upperwood Academy - DT Substantive Concepts

Structures





EYFS

Junk modelling and construction:

- Children know how to join materials in a variety of ways choosing and using, glue, cello tape, string, split pins and paperclips.
- Children will make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.
- Children know how to explore different materials freely, to develop their ideas about how to use them and what to make via junk modelling.

LKS2

Constructing a castle:

- To understand that wide and flat based objects are more stable.
- To understand the importance of strength and stiffness in structures.
- To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse – and their purpose.
- To know that a façade is the front of a structure.
- To understand that a castle needed to be strong and stable to withstand enemy attack.

Pavilions:

- Children know how to create a range of different shaped frame structures.
- Children know how to make a variety of free-standing frame structures of different shapes and sizes.
- Children know how to reinforce corners to strengthen a structure.

KS₁

Windmills:

- Children know how to make a stable structure from card, tape and glue
- Children know how to turn 2D nets into 3D structures.
- Children know how to following instructions to cut and assemble the supporting structure of a windmill.

Baby bears chair:

- Children know how to make joints and structures from paper/card and tape.
- Children know how to build a strong and stiff structure by folding paper.

UKS2

Bridges:

- Children know how to make a range of different shaped beam bridges.
- Children know how to use triangles to create truss bridges that span a given distance and support a load.
- Children to know how to build a wooden bridge structure.