



Upperwood Academy – DT Substantive Concepts

Structures



At Upperwood Academy, year on year, children will build upon their DT knowledge, skills and vocabulary. Careful curriculum planning ensures that our children revisit each area of the DT curriculum throughout their time at school to develop their subject knowledge progressively.

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.