

DT Learning Organiser – Year 6 Autumn 1 – Is the Amazon the lungs of the world?

Prior Learning (What we already know?)

- To research existing products to inform their design
- To design their own product according to a brief and taking consideration of intended user
- To choose materials appropriately
- To measure and cut materials accurately to the nearest mm
- To evaluate their product, taking the views of others into account when suggesting improvements

Key Questions

- How did handling existing models influence your design?
- How could making lots of parts separately, before doing any assembling, help you?

Key Facts

There are many wood joints available to make, joints are used to build strength into products. Joints can be reinforced using glue or nails. Some of the different types of joint are as follows: Butt joint, Mitre joint, Halving joint, Mortise and Tenon, Dowel joint, Lap joint, Housing joints, Finger joint.

Cams generally do the opposite job to cranks: they turn rotary motion into reciprocating motion. Whatever you need to move up and down (or back and forth) rests on top of an oval wheel, sometimes mounted off-center (the cam). As the cam rotates, the object it supports rises up and down.

New Learning

- Design a product, following a brief, and taking inspiration from research and considering intended user
- Measure and cut wood to the nearest mm
- Use sand paper to refine wood cuts
- To choose appropriate sizes of wood for task
- Join wood in ways appropriate for task (eg. glue gun, nails)
- To reinforce joints for stability
- To use cams to create linear movement from rotary movement
- To evaluate their product including both successes and improvements

New Skills

- Research related products – explain how the products work and what this means for their construction
- Design a product, using a design brief, with the user in mind
- Use a cam to convert rotary motion to linear
- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape)
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape
- Evaluate product, identifying what they did well and what they would change next time



Vocabulary

cam, rotary motion, linear motion

Key Resources

<http://www.mr-dt.com/manufacturing/woodjoints.htm>

<https://www.youtube.com/watch?v=2vCLmxslavo>

Can I do this.....?

- I can explain how research and intended user influenced their design
- I can independently choose appropriate materials and tools
- I can use existing knowledge to join materials appropriately for purpose
- I can use cams on axels to create additional movement
- I can evaluate their product, taking the views of others into account when suggesting improvements