LITHERLAND HIGH SCHOOL

LIVO CATCH-UP 10

Year 9 Design Technology

Desk Tidy Project

1 WHAT IS THE DESIGN PROCESS?

We follow a design process to solve a problem and make a product that meets the needs of the user.

1. Identify the design situation
2. Research and analyse existing products
3. Generate design ideas
4. Develop and model your ideas
5. Make your product
6. Evaluate and suggest improvements

A good design follows a clear process!



2 HOW DO WE RESEARCH AND ANALYSE PRODUCTS?

- Primary research – looking at real products (e.g. asking people, surveys, questionnaires).
- Secondary research – using books, internet and images.
- Use a Task Analysis to think about: aesthetics, function, target market, environment, size, materials and cost.
- Use ACCESSFM to evaluate existing desk tidies.

Research helps us make better design choices!







3 WHAT DOES ACCESSFM MEAN?

We use ACCESSFM to help us evaluate existing products and our own designs.

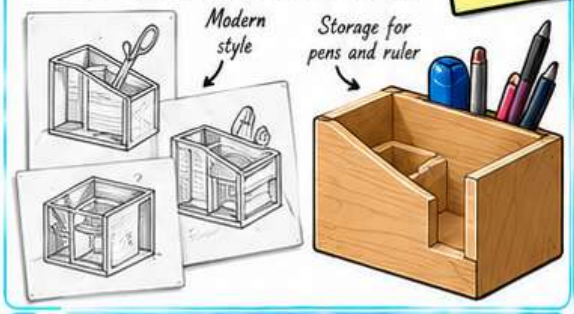
- **A** Aesthetics – does it look good?
- **C** Cost – is it good value?
- **C** Customer – does it meet their needs?
- **E** Environment – is it sustainable?
- **S** Size – is it the right size?
- **S** Safety – is it safe to use?
- **F** Function – does it work well?
- **M** Manufacture – how is it made?



4 HOW DO WE PRESENT DESIGN IDEAS?

- Use sketches, doodle sketching and mood boards to generate lots of ideas.
- Annotate your ideas to explain design choices.
- Use different techniques (2D and 3D) and add colour, shading and detail.
- Avoid design fixation – try lots of different ideas before choosing your final design.

Try lots of ideas before choosing your final design!



5 WHAT MATERIALS CAN WE USE?

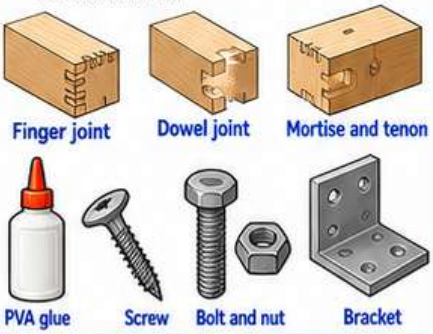
- We can use a range of materials to make a desk tidy.
- Timber – softwood, hardwood and manufactured boards (MDF, plywood).
- Plastics – different types (e.g. acrylic, HIPS).
- Metals – aluminium, mild steel (if used).
- Each material has different properties, advantages and uses.

Choose the right material for strength, appearance, cost and purpose!



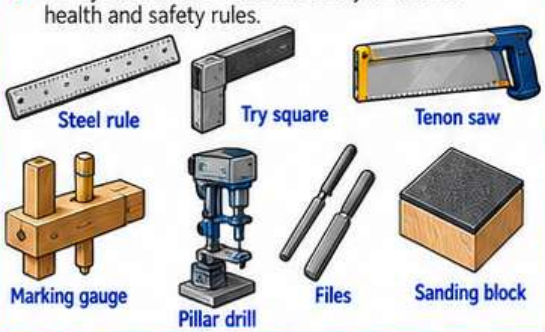
6 HOW DO WE JOIN MATERIALS TOGETHER?

- We can use different joining methods depending on the material and purpose.
- Wood joints – finger joint, dovetail, dowel, mortise and tenon.
- Other joining methods – PVA glue, screws, nuts and bolts, adhesives.
- Make sure joints are strong, accurate and well finished.



7 WHAT TOOLS AND EQUIPMENT DO WE USE?

- We use a range of tools to measure, mark out, cut, shape, drill and finish our desk tidy.
- Always use the correct tool safely and follow health and safety rules.



8 HOW DO WE MAKE A PROTOTYPE MODEL?

- We can make a model of our desk tidy using card, MDF or other materials.
- Modelling helps us test ideas and check the size, shape and function.
- Use simple materials such as card and straws for initial models.
- Consider structure and stability (e.g. triangulation).

A model helps us test ideas before final product!



9 HOW DO WE EVALUATE OUR FINAL PRODUCT?

- We can evaluate our finished desk tidy using ACCESSFM and the 6Rs.
- Consider what went well, what could be improved and if it meets the design brief.
- Think about the environmental impact.

The 6Rs

- **R** Recycle
- **R** Reduce
- **R** Reuse
- **R** Refuse
- **R** Repair
- **M** Rethink

Be honest and suggest how you could improve your design!



10 YOUR CATCH-UP 10

1. What is the purpose of a desk tidy?
2. What are the stages of the design process?
3. What does ACCESSFM stand for?
4. Give two examples of primary and two examples of secondary research.
5. Name three different joining methods for wood.
6. Give two examples of tools used to measure and mark out.
7. Name two advantages of making a prototype model.
8. What are the 6Rs? Give three examples.
9. What properties should a material have for a desk tidy?
10. How could you improve your final desk tidy design?

FINAL CHECK

- ☐ I understand the design process and can explain each stage.
- ☐ I can describe what primary and secondary research is.
- ☐ I can use ACCESSFM to evaluate products.
- ☐ I can generate and annotate a range of design ideas.
- ☐ I can choose suitable materials and explain why.
- ☐ I can use tools safely and accurately.
- ☐ I can make a model to test my ideas.
- ☐ I can identify and explain different joining methods.
- ☐ I can explain the 6Rs and consider the environment.
- ☐ I can evaluate my finished product and suggest improvements.

NOW I'M READY TO REVISE THE LESSON!



Kindness • Integrity • Tenacity