

Preston Primary School Knowledge Organiser

Topic: Design and Technology

Term: Autumn 2

Year: Unit 4

Duration: 5 Weeks



Textiles – Design, make and evaluate a functional and appealing product, using market research, questionnaires, and surveys [slippers].

The Powerful Knowledge we will take away from this Learning Enquiry (what will be learning):

- Explore and critically evaluate a range of existing textile products [including how they can be recycled and reused, what methods of construction has been used, what materials have been chosen, and how innovative products are].
- Understand what sustainability means and link this to the textile industry.
- Carry out research through surveys, questionnaires, interviews, and web-based resources to gather information about the needs, wants and preferences of individuals and groups.
- Select appropriate materials to create a product based on the audience wants and needs,
- Explore a variety of joining techniques, including stitching, fastening and adhesives.
- Design and make a product that has some sustainable qualities.
- Explain their choice of materials based on their functional properties and appearance.
- Accurately measure materials with more than one part.
- Make a product from a range of material joining techniques, including stitching, fastening and adhesives.
- Accurately assemble and join materials to create an appealing and functional finished product.
- Identify strengths and areas of development in their textile products.
- Consider the views of others, including intended users, to evaluate their work.



Our Key Vocabulary:

| Word | Meaning |
|-----------------|--|
| Design | Design is developing, planning, and communicating your ideas about what you intend to make. |
| Make | To work with tools, equipment, materials, and components to make quality products. |
| Evaluate | To reflect on ideas and products against the design criteria. |
| Design Criteria | The goals you must achieve when making your product for it to be successful. This is used to evaluate a product. |
| Textiles | Textiles are made from fabrics and fibres. Clothes and cloths are textiles. |
| Sustainability | If something is sustainable it can be carried on for a long period of time. |
| Texture | The feel and consistency of a material. |
| Flexibility | Being able to bend easily without breaking. |
| Audience | The people who your product is made for. |
| Stitching | A row of stitches sewn into cloth. There are variety of different sewing techniques. |
| Appearance | The product looks nice. It is attractive or interesting to look at. |
| Functionality | The product fulfils its practical purpose. It works. |
| Market Research | Gathering information about the customers wants and needs to help you design and make a product. |
| Joining | To connect two materials together. You could do this through stitching, a fastener, or an adhesive. |
| Fastening | A type of joining technique used to secure something. Such as a zip or button. |
| Adhesives | A substance used to stick materials together. |

What I already know:

Previously, the children would have learnt about the following bullet points. Have a discussion with your child about the following bullet points and what they could mean.

- I can discuss similarities and differences between different textile materials based on colour, texture, weight, and flexibility.
- I have learnt about some joining techniques such as gluing and threading [running stitch].
- I have learnt how to design and make products selecting from a range of suitable and functional materials.
- I have learnt how to evaluate your product and its functionality.

How Can Fashion Be Sustainable?

We will be learning about how the *Fast Fashion* industry has a negative impact on our environment by filling up our landfills and polluting our waters with toxic dyes. So, how can fashion be sustainable? You may have heard of the popular 3 R's - 'reduce, reuse, recycle' - asking us all to reduce what we consume, reuse our resources, and recycle where possible. These are all important to helping us tackle the environmental issues around fast fashion.

There are several ways we can slow down fast fashion:

- Re-wear your clothes.
- Shop second-hand clothes such as charity shops.
- Upcycle, mend and customise your old clothes.

The idea is that we buy fewer new items, mend and make use of what we already own and this will reduce the impact on the planet. By making these changes to our lifestyle, we can reduce the 350,000 tonnes of clothes that end up in landfill every year.

The Continuous Cycle of Design, Make and Evaluate in Design and Technology:

The children will continue to revisit the Design, Make and Evaluate continuous cycle of Design and Technology. This cycle demonstrates that when we are designing or making a dish, we must constantly evaluate and adapt our design and dish to improve its success against the design criteria. Children will also evaluate their dish after they have made it; they will evaluate what challenges they faced, what they would improve next time and how they have met the design criteria. This encourages children to be reflective learners and critical thinkers.

