

Homework 4 & 5 - Woven Fabrics

Learning Objective: To learn the properties, structure and uses of different woven textiles.

To remind you how fibres and yarns are made this is video we looked at on YouTube last year:

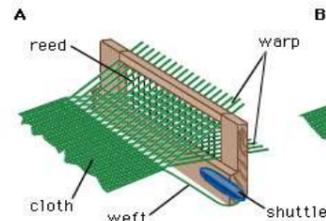
https://www.youtube.com/watch?v=PDuiSnBYCQc&ab_channel=Don%27tMemorise



Fibres which come from **natural** or **synthetic** sources are spun together to form **yarns** which are then made into **fabrics**. **Fibres** are twisted or spun together to form a long continuous thread known as a **yarn**.

Fabric Construction - Woven Fabrics

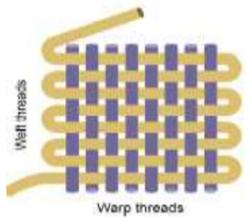
Weaving is one of the most common ways of making **fabric**. The calico we are using for our decorative techniques samples is a woven **fabric** made from cotton **fibres**. Weaving is also the construction method used for baskets.



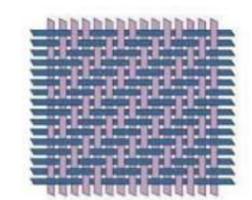
Weaving is done on a loom. If the weaving is simple it is done with a shuttle loom.



More complicated designs are done on a **Jacquard** loom. This is where the design is woven into the fabric instead of printed onto the ready-made fabric.



Plain Weave
The warp and weft pass over and under each other forming a criss-cross pattern.
Example: Calico



Twill Weave
The weft yarn goes over two warp threads then under two. This is repeated one along on the next row. It makes a diagonal pattern.
Example: Denim

How Woven Fabrics are constructed

Warp (vertical) threads are held under tension on a loom. *Look at the loom picture above.* **Weft** (horizontal) threads loop in and out of the **warp** threads to create the weave. The edges are called the **selvedge**. This edge doesn't **fray**. To **fray** means that the weaving will come undone and the fabric will start to fall apart.

The most common weaving patterns are the "**Plain Weave**" and the "**Twill Weave**".

Denim is made using white thread for the **warp** and blue thread for the **weft**. This is why the back of your jeans are white! Have a look.

Properties of Woven Fabrics

Properties - Different materials are said to have different physical and chemical properties. This means they behave in different ways. For example, cotton fabrics crease easily and are difficult to iron when dry, whereas polyester fabrics are crease resistant and easier to iron. Sometimes it is easier to look at these as advantages and disadvantage.

Advantages of Woven Fabrics - Strong, hardwearing, hangs well, same on both sides, cheap to make, keeps its shape, good background for printing and applied surface designs.

Disadvantages of Woven Fabrics - Frays easily, quality varies. Twill weaves can be thick and uneven.

Examples of woven textile products: Shirts, trousers, dresses, jackets, bags, bedding etc

1. Name a **natural fibre** and a **synthetic fibre**.
2. What is the name of the machine used for weaving?
3. What kind of loom is used to create more complicated designs?
4. Name two types of weave.
5. Explain what a **warp** thread is
6. Explain how a weft thread is used
7. What is the edge of the woven fabric called?
8. Explain how Denim fabric is made.
9. Give 4 different properties of woven fabrics.
10. How many textile products can you think of in your home that are made from woven fabrics?
11. Watch the You Tube Videos and have a go at weaving. You can use any paper that you have at home, for example, pages from magazines, newspaper, old wrapping paper. You could also do this with wool or strips of fabric. Bring this to school with your homework. You can look for other videos if you want.

Twill Weave - https://www.youtube.com/watch?v=IFklQkkQvqY&ab_channel=Jun-NalynTV

Plain Weave - https://www.youtube.com/watch?v=sOmYCURzd7Y&ab_channel=MichaelWedge

There is also a fun weaving project on the powerpoint on Teams.