

Fibre to Fabric

Fibre - A thread or filament from which a vegetable tissue, mineral substance, or textile is formed.

Yarn – A spun thread that is made from fibres in order to produce a fabric for knitting, weaving, sewing

Variety of fibres

Natural fibres – Fibres obtained from nature or natural sources like plants, animals and geological processes.

Animal fibres – Fibres obtained from animals including hair, fur, and feather
Wool is obtained from the fleece or hair of sheep and yak.
Silk is obtained from silkworms

Plant fibres – Fibres obtained from plants
Cotton is a plant fibre

Synthetic fibres – Fibres made by humans through chemical synthesis.

Cotton: A plant fibre

A warm climate and black soil are suitable for the growth of cotton plants
In India, cotton is produced in states of Punjab, Gujarat, Madhya Pradesh, Karnataka, Maharashtra etc.

Cotton plants bear fruits called cotton balls
When this cotton balls mature, they burst open and their seeds wrapped up in cotton fibre become visible.
Usually handpicking of cotton is done from these balls

Ginning – The process of separating cotton fibres from cotton seeds.
Ginning used to be done by hand but nowadays machines called double roller cotton ginning machines are widely in use.

Jute

- Jute fibre is obtained from the stem of the jute plant
- Jute is cultivated in the rainy season.
- Jute producing Indian states include Bihar, Assam and West Bengal.

- Harvesting of jute is done during its flowering stage.
- After harvesting, the stems are soaked in water for four to five days
- The stems are left to rot and then the fibres are picked out by hand.

Spinning Cotton Yarn

Spinning – The process of obtaining yarn from fibres in which fibres from a huge heap of cotton wool are taken out and twisted which brings them together to form a yarn.

There are two major hand- operated devices used for spinning are Takli and Charkha
The spinning of yarn is done on a bigger scale with spinning machines following which these yarns are used to weave fabric.

Khadi was the term used to denote clothes which were made from homespun yarn.

Yarn to Fabric

There are two methods of converting yarn to fabric which are weaving and knitting.

Weaving – The process of entwining two sets of yarn simultaneously to make
A hand or machine operated loom is used for this process which interlaces two sets of yarn at right angles to each other.

Knitting – The process of making a piece of fabric from a single strand of yarn.
Knitted fabrics are used to make socks, sweaters, mufflers and a lot of other winter clothes
It can be done by hand or machines

History of Clothing Material

In earlier times, people used big leaves and bark of trees to cover themselves.
After settlement began in agricultural communities, they learnt how to weave. They used grass and twigs to make mats and baskets. Animal hair or fleece and vines were warped together into stretched out strands which were then woven into fabrics.

Cotton grew in abundance in areas near Ganga, which was used by the early Indians to make fabrics.

- Flax is another plant which yields natural fibres.
- The early Egyptians cultivated both cotton and flax, which grew near the Nile river and used them to create fabrics.
- People did not have the knowledge of stitching. They simply wrapped the fabric around different parts of their bodies. Even today unstitched clothes like sarees, dhotis, lungis or turbans are widely in use.
- After the invention of the sewing needle, people learnt how to stitch fibres to make fabric.