

6th – Fibre to Fabric I



Clothes are one of our basic needs. We wear clothes mainly to protect our bodies from weather conditions, such as heat, cold and rain. We wear different types of clothes according to climate, occupation, culture, traditions and daily needs. The clothes that we wear daily, the towels, the curtains, etc., are made from different types of fabrics. Fabric is commonly called cloth. Clothes are made of different materials. We get these materials from both plants and animals.

History of Clothing: Early humans used to wear large leaves, animal skins and fur as clothes to wrap around their bodies to keep themselves warm during winters. When people began to settle in agricultural communities, people learnt to weave twigs and grass into mats etc. Later, humans developed the technique for spinning and weaving cloth from the fluffy substance of the cotton plant. The clothing was invented between 50,000 and 1,00,000 years ago. In India, the use of cotton spread around 3000 BC. In China, silkworms were domesticated to produce silk fibres. Women used to wear sari and men used to wear dhoti. With invention of Fibre: fabrics are made from certain types of fibres. Fibres are long, strong and flexible thread-like materials.

Types of fibres: There are three types of fibres: natural, synthetic and mixed fibres.

1. **Natural fibre:** fibres that are obtained from plants and animals are called natural fibres. Cotton, jute, coir, hemp and flax are examples of fibres obtained from plants. Wool and silk fibres are obtained from animals. Wool is obtained from the fleece of sheep or goats. It is also obtained from the hair of rabbits, yaks and camels. Silk fibre is drawn from the cocoon of the silkworm. The fabric made from natural fibres is called natural fabric.

Advantages of natural fibres:

1. These fabrics absorb more water and sweat.
2. They allow air to pass through them.
3. They are biodegradable and do not affect the environment. -

Disadvantages of natural fibres:

1. They do not retain their creases for long.
2. They may shrink on ordinary washing.
3. They can easily be attacked by moths and moulds.
4. They do not dry rapidly.
5. Natural silk is very expensive and not quite affordable.

2. **Human or Synthetic Fibres:** Fibers that are made by man from chemical substances are called synthetic fibre. Example: Rayon, Nylon etc. The synthetic fibres are mostly obtained from petroleum. The fabric made up of synthetic fibres is called synthetic fabric.

Advantages of synthetic fibre:

1. They are more durable and easy to maintain.
2. They do not absorb much water, dry up fast and are wrinkle free.
3. They are not affected by moths and moulds.

Disadvantages of synthetic fibre:

1. They do not allow air to pass through it. And hence are not good for summers.
2. They do not absorb sweat.
3. They catch fire easily.
4. They are non - biodegradable.



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3. Mixed fibres: fibres made by blending natural fibres with synthetic fibres to obtain more superior and useful fibres are called mixed fibres. Examples are: terrycot (terylene + cotton), terrysilk (terylene + silk) and terrywool (terylene + wool).

Cotton: is a soft fibre that grows around the seeds of the cotton plant. The cotton plants are usually grown at places having black soil and warm climate. In our country is cultivated in Maharashtra, Madhya Pradesh, Punjab, Rajasthan, Gujarat, Andhra Pradesh, Tamil Nadu and Karnataka.

Cultivation of Cotton: In India, the growing period for cotton is from March (spring) to November(winter).

1. Cotton seeds are planted in the early spring in a well-prepared field.
2. Cotton seeds grow steadily. The fruits of the cotton plant are called cotton bolls.
3. After maturation, the cotton bolls burst open and the seeds covered with cotton fibres can be seen.
4. The heat of the sun dries these fibres, turning them fluffy and as white as snow.
5. Now, it is harvested.

Uses of cotton:

1. Cotton fibres are used for manufacturing clothes and linen. For example, socks, shirts, bed sheets, etc., are generally made from cotton.
2. Cotton clothes are comfortable in hot and humid conditions because they are soft to touch, absorb sweat and let the air in.
3. Cotton is blended with other fibres to make mixed fibres like terrycot.
4. Cotton is used to absorb blood and pus from wounds and in other medical procedures.

Process of making fabric from fiber

