

# VIDYA BHAWAN BALIKA VIDYAPEETH

## STUDY MATERIAL SCIENCE CLASS-VII

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### ▶ **Fibres & Fabrics**

#### **Processing of Fibres into Wool**

Processing of fibres into wool involves the following steps:

**Step I:** The fleece of the sheep along with thin layer of skin is removed from the body. This process is called shearing. The hair of the sheep are shaved off by using a saving machine similar to that used by barbers.

Shearing does not hurt the sheep because the uppermost layer of the skin of sheep is 'dead'. The shearing (cutting the hair) of sheep is done in hot weather of summer so that sheep may survive without their protective coat of hair. The hair of sheep grow again before the onset of winter and protect them in cold weather. The fleece (or hair) of sheep provides woollen fibres. Woollen fibres are then processed to obtained woollen yarn.

**Step II:** The fleece of sheep (or cut the hair of sheep) contains dust, dirt, dried sweat and grease, etc. So, the sheared hair of sheep is thoroughly cleaned by washing with soap (or detergent) and a lot of water in tanks. This process of washing of sheared hair is called scouring. Scouring makes the fleece of sheep clean. The scoured fleece is then dried. Now-a-days scouring is done by machines.

**Step III:** After scouring, sorting is done. The process of separating the fleece of a sheep into sections according to the quality of woollen fibres (such as fine, coarse, long, short, etc) is called sorting. In sorting, the hairy skin is sent to a factory where hair of different textures is separated or sorted. Every section of wool obtained after sorting contains the same quality wool. The same quality wool obtained is then mixed together.

**Step IV:** The small fluffy fibres, called burrs, are picked out from the hair (burrs are soft, fluffy fibres in wool).

(After this, the fibres are scoured again and dried. The wool obtained after this is ready to be drawn into fibres).

**Step V:** The natural fleece or hair of sheep (or goat) is white, brown or black in colour. The white woollen fibre obtained by sorting can be dyed in different colours.

**Step VI:** The fibres are straightened, combed and rolled into yarn. The long woollen fibres are spun (or twisted) into thick yarn called wool which is used for knitting sweaters, etc.

The short woollen fibres are spun into fine yarn and then woven on a loom to make woollen clothes (like shawls, etc).

Finally, we conclude that the sheep's hair is sheared off from the body, scoured, sorted, dyed, combed and spun to obtain wool (for knitting sweaters) and woollen yarn (for weaving cloth). The quality of woollen cloth depends on the breed of sheep from which wool is obtained.