Textile fibers can be classified based on their origin and chemical composition. Here is the standard classification:

1. Natural Fibres

These are obtained from natural sources like plants, animals, or minerals.

A. Plant-Based (Cellulose Fibres)

Cotton – from cotton seed hairs

Linen (Flax) – from flax plant stalks

Hemp – from hemp plant stalks

Ramie – from Chinese nettle plant

Jute – from jute plant stalks

Coir – from coconut husk

B. Animal-Based (Protein Fibres)

Wool – from sheep

Silk – from silkworms

Alpaca – from alpaca

Mohair – from Angora goats

Cashmere – from Cashmere goats

C. Mineral-Based

Asbestos – naturally occurring mineral fiber (now rarely used due to health hazards)

2. Man-Made Fibres

These are manufactured through chemical processes, either from natural polymers or synthetic materials.

A. Regenerated Fibres (from natural polymers like cellulose)

Viscose Rayon – regenerated cellulose

Modal – modified viscose

Lyocell (Tencel) – solvent-spun cellulose

Acetate – cellulose acetate

B. Synthetic Fibres (from petrochemicals)

Polyester – e.g., PET (Polyethylene Terephthalate)

Nylon (Polyamide) – e.g., Nylon 6,6 or Nylon 6

Acrylic – resembles wool

Elastane (Spandex/Lycra) – stretchable fiber

Polypropylene – lightweight, moisture-wicking

3. Inorganic/High-Performance Fibres

These are engineered for technical or industrial use.

Carbon fibre – high strength-to-weight ratio

Glass fibre – used in composites and insulation

Metallic fibres – often blended for conductivity or aesthetics

Aramid (e.g., Kevlar, Nomex) – high strength and flame resistance