# Synthetic Fabrics

Scientists, make synthetic fibers in a laboratory using chemicals obtained from coal, air, water, sulfur, natural gas, and cellulose. Cellulose is the chief substance in the cell walls of plants. Paper is also made from cellulose. Another chemical often used to make synthetic fabrics is acetic acid, a substance found in plants and trees which is also used to make varnishes. Glass fibers are also used to make fabrics. Synthetic fabrics are often known by trademarks. A trademark is a brand name.

Synthetic fabrics have several advantages. Often they are less expensive than natural fabrics. They may be more wrinkle-resistant and easier to wash. If you read the labels of your clothing, you will find that synthetic frequently are blended with natural fabrics. Sometimes fabrics are blends of several synthetic fibers.

## Common Synthetic Fabrics and Their Uses

Acetate is lustrous and silky. Because it has body and drapes well, it is used in dresses, blouses and dressy shirts for men. Some trademarks are; Celanese, Celara, and Estron.

Triacetate is similar to acetate. Because this fabric is more resistant to heat damage, it is easier to iron without damaging the fabric. It was first used to make tennis dresses. A trade name is Arnel.

Acrylic is similar to wool. It has warmth and bulk. Acrylic fabrics are light, strong, and easy to care for. Many sweaters and coats are made from acrylics. Trade names includes Acrilan, Orlon, Zefran.

Metallics are metal fibers covered with plastics or polyester. Sometimes, a thin layer of metal foil is bonded between two sheets of plastic film. Metallics are often blended with other fabrics. Dressy blouses often have metallic. Some trade names are Durastran, Lame, Mylar

Modacrylics are modified acrylic fibers. They are heat sensitive and can be stretched, embossed, and molded into special shapes. They are used in blends that do not require ironing. Dense fur like fabrics used to make winter coats may be made from modacrylics. Trademarks are dynel and Verel.

Nylon is strong, light and elastic. It is used alone and blende with other fabrics. Many blouses, dresses, men's shirts and ladies undergarments are made from this fabric. Some trademarks are; Cantrece, Nyloft, and Quiana.

Polyester are often in cotton blends to make them more durable or wrinkle-resistant. Polyester fibers are often blended with other fibers too, especially rayon and wool. Polyester knits are popular. They are wrinkle-resistant and do not shrink or stretch very much. Dacron, Fortel, and Kodel are trademarks.

Rayon is a shiny fabric that looks like silk. Rayon fibers are produced chemically from cellulose. Rayon fibers are used in blends with all natural and synthetic fibers. Trademark names are Celanese, Jetspun, and Zantrel.

Spandex has much elasticity and is used the same way as natural rubber. It is always used in combination with other fabrics. Lyca and Spandelle are two trademarks.

Name: _____

Date: _____

1. What characteristics do nylon and spandex fibers have in common ?

   _____
   _____
   _____

2. Identify two advantages of each of the following manufactured fibers:

   a. Acrylic

      _____
      _____

   b. Polyester

      _____
      _____

   c. Rayon

      _____
      _____

   d. Acetate

      _____
      _____

   e. Triacetate

      _____
      _____

3. You have a summer job working in a clothing store. Customers often complain about feeling hot and sticky in certain fabrics. What fibers would you recommend customers look for when purchasing summer clothing.

   _____
   _____
   _____
   _____