FIBERS: MANUFACTURED AND NATURAL

Directions: Answer the following questions as the material is presented.

1. What is fabric made of? ____Strands of fibers woven or knitted together____
2. The two (2) groups of fibers are: ____manufactured____ and ____natural____
3. There are three terms commonly used for non-natural fibers. They are:
   ____manufactured____  ____synthetic____  ____man-made____
4. List two (2) categories of synthetic (man-made) fibers and give an example of each.
   Categories: 1. ____cellulose (wood pulp)__ 2. ____rayon, acetate____
   Examples: 1. ____non-cellulose (petroleum chemicals)__ 2. ____nylon, polyester____
5. Briefly describe how synthetic fibers are made.
   ____The chemical compound is forced through a spinnerette and allowed to dry.____
6. Name several characteristics of synthetic fibers.
   ____Durable, strong, clean easily, hold shape, take color well____
7. What are some commonly used products made of synthetic fibers?
   ____Carpets, upholstery, clothing, umbrellas, draperies, camping and sports equipment____
8. Some advantages of synthetic fibers are:
   ____Always available, less expensive, can be altered to meet any need, stronger____
9. Some disadvantages of synthetic fibers are:
   ____Don’t allow air to pass through, hot to wear, static electricity build-up____
10. How are the disadvantages of synthetic fibers generally overcome?
    ____By blending with natural fibers for a balance of characteristics____
11. Explain the difference between the generic name and the trade name. Give an
    example of each.
    A generic name is ____the name of the chemical compound____  ____Polyester, spandex____
    A trade name is ____the name given by the manufacturer____  ____Dacron, lycra____
12. List five (5) natural fibers and the source of each.
    Fibers: ____cotton____  ____linen____  ____wool____  ____silk____  ____leather/fur____
    Source: ____cotton plant____  ____flax plant____  ____sheep/lama____  ____silkworms____  ____animals____

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13. What are some advantages of natural fibers?
   ___They allow air to pass through, more comfortable to wear, feel good to touch___

14. What are some disadvantages of natural fibers?
   ___Not always available, more expensive, wrinkle easily, more difficult to care for___

15. Briefly describe how wool is made.
   ___Sheep sheared, wool cleaned and dyed, wool spun into yarn, fabric made___

16. Explain what happens to natural fibers when laundered incorrectly.
   ___Fabric shrinks, wrinkles, fades, gets stiff, crinkles up___

17. Why are natural fibers often more expensive?
   ___The manufacturing process is more difficult and time consuming___

18. Why is it important to check the label of a garment for the fiber content?
   ___So you can care for the garment correctly___

Flax fiber at different stages of processing.

Photomicrograph of flax showing nodes.