CLOTHING FIBERS

Directions: Fill in the following information as you view the video.

1. A ____fiber_____ is the basic building block of cloth.
2. What is cloth? ________yarns woven or knit together________________
3. What are yarns made from? ____fibers twisted together_______________
4. Each of us uses about ___60___ pounds of textile fibers a year.
5. Fibers can be classified as ___natural________ or ___synthetic________.
6. Natural fibers have their origin from ____plants____ or ____animal_____ protein__.
7. Synthetic fibers are called ___man-made____ or ___manufactured_____ fibers.
8. List four (4) natural fibers and three (3) synthetic fibers.
   Natural
   ___wool__________ ___linen________
   ___cotton_________ ___silk__________
   Synthetic
   ___nylon____________ ___acrylic________
   ___polyester________
9. Synthetic fibers do not ___absorb_____ moisture, but natural fibers do.
10. Why are most T-shirts made from 100 percent cotton? __to absorb perspiration__
11. Since synthetic fibers do not absorb water, they often develop ___static______ electricity or cling.
12. T F You cannot tell the fiber in a fabric just by looking at it.
13. T F Fiber content labels are not required on all clothing items.
14. T F A blended fabric always uses three (3) or more fibers.
15. T F Often a blend is one (1) natural and one (1) synthetic fiber used together.
16. T F Polyester/cotton is the most common blend of fibers.
17. T F By blending two (2) fibers you can have the advantages of both fibers.
18. T F To get the benefits of cotton or wool in blended fabrics, the cotton content must be at least 50 percent and the wool content must be at least 80 percent.
19. T F Fiber labels are only found in clothing items.

NATURAL FIBERS

20. ___Cotton_____ was used by Native Americans in about 700 A.D. and the Egyptians 4,000 years ago.
21. After the cotton flower drops from the plant, it is replaced with a pod called a __cotton____ __boll__.
22. Cotton is no longer harvested by hand but by machines called __stripers_____ and __pickers_____.

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23. The ___cotton___ ___gin___ separates the fibers from the seeds.
24. The higher grades of cotton fibers are about _3/4_ inch(es) to ___2___ inch(es) long. The longer fibers make a smoother fabric.
25. The highest grade of cotton is called _good___ ___middling__________.
26. Cotton fabrics _wrinkle____ easily and shrink about ___3___ percent unless pretreated to resist shrinking.
27. Cotton is the _most___ used fabric in the world, and the most used ___natural___ fabric in the United States.

28. _Wool_____ is possibly the oldest fiber known to humans.
29. Wool is a ___protein____ substance, just like human hair.
30. The majority of wool comes from ___sheep______.
31. The surface of the wool fiber _repels____ water, and the inner core ___absorbs___ water.
32. Wool can absorb almost ___double____ its own weight in water and still feel dry to the touch.
33. List three (3) characteristics that wool has because of its absorbency:
   1. ___Resists wrinkles _____________________________
   2. ___Flame resistant _________________________________
   3. ___Reduces static electricity ________________________
34. Wool is woven into fabric by interlacing the yarns on a loom.
The lengthwise yarns are called the ___warp________.
The crosswise yarns are called the ___weft______ or ___filing______.

35. Linen is made from the fibers of the ___flax____ plant.
36. Flax is grown and harvested mostly by hand in Western Europe, mainly in three (3) countries. What are they?
   ___Belgium___________ ___Netherlands___________ ___France____________
37. Linen has longer fibers than cotton. They are usually ___6___ inch(es) to ___20___ inch(es) long. This makes linen stronger and smoother than cotton.
38. List six (6) ways linen is used:
   1. ___bed coverings__________________ 4. ___wall covering______________
   2. ___handkerchiefs_________________ 5. ___draperies__________________
   3. ___fine fashion/suits______________ 6. ___upholstery__________________
39. Linen is usually ___more___ expensive than cotton.
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40. Silk_____ has always been associated with beauty and luxury.
41. The process of making silk was invented in ___China___ about ___5,000___ years ago.
42. Silkworms used for making the silk fibers feed on ___mulberry___________ leaves and eat ___continuously___.
43. Each cocoon contains from ___900_____ to ___1,300___ yards of fibers.
44. A silk thread is as strong as a ___wire_____ of equal thickness.

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45. __Ramie__ is made from the __ramie__ plant.
46. Ramie is ___strong___, ___durable___, and ___absorbent____.
47. Ramie fibers are usually used:
    _______ Alone _______ XX__ Blended with other fibers

SYNTHETIC (MANUFACTURED) FIBERS

48. ___Polyester_______ is the most commonly used synthetic fiber.
49. Polyester’s best quality is that it resists ___wrinkling______.
50. Most synthetic fibers begin as a ___petroleum_______ product.
51. Dupont introduced its DACRON brand of polyester in ___1951___.

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52. ___Nylon___ has some of the look and feel of silk.
53. Give six (6) examples of products made of nylon.
    1. ___Women’s stockings________________ 4. ___Netting_____________________
    2. ___Parachutes______________________ 5. ___Outdoor/sports gear_______________
    3. ___Roadbeds_______________________ 6. ________________________________

54. Nylon has replaced ___wool______ as the fiber most used in carpets.
55. Nylon was introduced to consumers in ___1939___ and gained acceptance first as nylon ___stockings___ replaced those made of silk.

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56. Acrylic is a synthetic fiber that is made from ___coal______, ___air____, ___water___, ___oil___, and ___limestone______.
57. Acrylic imitates ___wool________ and has many of the same characteristics. It is ___warm___ and ___soft___ but does not have its ___water____ handling___ ability.

58. A ___cotton___ / ___acrylic_____ blend is often used in sweaters.
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MAN-MADE (MANUFACTURED) FIBERS

59. __Rayon________ and __acetate________ start life as trees. These fibers are made from chemically altered __wood_____pulp__.

60. Rayon was the __first____ man-made fiber used for clothing and dates back to the __Civil__ War.

61. T F Rayon wrinkles terribly.

62. Until 1924, rayon was known as artificial __silk____.

63. Rayon is commonly used for __outer____ wear, and acetate is commonly used for __under__ wear. Some other uses are:

   Rayon: __artificial hearts___
   Acetate: ______________________

64. T F There is no one **best** fabric; it depends upon what it is to be used for.

Below are fabric products matched with a fiber. Most are rather poor matches. Explain what qualities of the fiber make it a poor choice for the product.

Wool/swimsuits **Ex. = Wool is weak when wet; becomes heavy when it absorbs a lot of water; dries very slowly; may be rough and itchy to your skin; doesn't smell very pleasant when wet.**

Nylon/T-shirts ___nylon is non-absorbent; would be hot____________________

Cotton/business suits ___wrinkles too easily; wouldn't hold its shape________________

Polyester/underwear ___polyester is non-absorbent; would be hot__________________

Silk/stockings ___silk isn't as stable as nylon; wouldn't hold shape as well________

Rayon/parachutes ___rayon isn't strong enough; would split in thrust of air_________

Acrylic/towels ___acrylic is non-absorbent; wouldn't get you dry___________________

Silk/swimsuits ___silk shows water spots and doesn't hold dyes well; not sun friendly___

Wool/track suit ___wool is weak when wet; becomes heavy with water; odor unpleasant___

Rayon/backpacks ___rayon isn't strong enough; would split with wear________________

Polyester/cleaning cloth ___polyester is non-absorbent; wouldn't pick up dirt, etc. _____

Silk/window curtains ___silk isn't sun-friendly; would rot quickly___________________

Nylon/sheets ___nylon isn't absorbent; body perspiration wouldn't be absorbed________

Cotton/swimsuits ___by itself, cotton doesn't hold its shape when wet; suit would fall off_____

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