Forensics Fibers & Hair

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write down the % of fabric types found in an item of your clothing:
2. What attributes of a fabric type make them suitable for specific clothing function?
	* Warm:
	* Cool:
	* Smooth, non wrinkled:
	* Wicking (drying quickly)
	* Flexible/Stretchy
	* Long Wearing
	* Stiff/Strong
	* Dyeing/coloring
3. What fabrics are derived from plants?
4. What fabrics are derived from animals?
5. What fabrics are man made in laboratories and factories?

Microscopic picture of fabrics



Shark Skin



Spider Silk Spigots



Now developing artificial spider silk – stronger than steel on a mass basis

http://web-jpn.org/kidsweb/hitech/spider/index.html

COTTON Chemistry



Polyester Chemistry



NYLON Chemistry



Acrylic Chemistry



Polypropylene Chemistry



WOOL Chemistry



SILK weave



HUMAN Hair

Imbricate Cuticle



< .3 Medullary Ratio



DOG Hair Cuticle : Imbricate



Dog Medullary Index ~ 0.5



RAT Hair

Cuticle Type : Coronal



CAT HAIR:

Cuticle Type: Spinous

