

## Unit III Topic A: Fibers and Fabrics

## Option 6

### Teacher Background Information



### MANUFACTURED FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Acetate	<ul style="list-style-type: none"> <li>Lustrous</li> <li>Does not shrink</li> <li>Lacks strength</li> <li>Resists damage and mildew</li> <li>Lightweight</li> </ul>	Underwear Sportsweat Dresses Blouses Shirts Neckties Scarves	<ul style="list-style-type: none"> <li>An all acetate garment will drape well.</li> <li>Resists fading from sunlight or perspiration.</li> <li>Can be damaged by acetone (nail polish remover).</li> </ul>
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	<ul style="list-style-type: none"> <li>Outerwear needs to be dry cleaned.</li> <li>Underwear washed in cold water; low dryer.</li> </ul>
FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Acrylic	<ul style="list-style-type: none"> <li>Lightweight</li> <li>Warm</li> <li>Non-absorbent</li> <li>Dries quickly</li> <li>Springs back into shape quickly</li> <li>Resists wrinkles</li> </ul>	Sportsweat Knitted garments Ski wear	<ul style="list-style-type: none"> <li>An all acrylic garment will be soft, warm, and lightweight.</li> <li>Resists damage from sunlight, oil, chemicals.</li> <li>Tends to build up static electricity.</li> <li>Tends to "pill" on surface.</li> </ul>
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	<ul style="list-style-type: none"> <li>Wash in cold water; low dryer.</li> <li>Low/medium heat on iron.</li> </ul>



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FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Modacrylic	<ul style="list-style-type: none"> <li>Lightweight</li> <li>Warm</li> <li>Springs back into shape quickly</li> <li>Non-absorbent</li> <li>Resists burning</li> <li>Dries quickly</li> <li>Resists wrinkles</li> </ul>	Sportswear Sleepwear Knitted garments Fur-like garments	<ul style="list-style-type: none"> <li>An all modacrylic garment will not burn readily.</li> <li>Garment will be soft, warm, and lightweight.</li> <li>Tends to build up static electricity.</li> <li>Withstands wear; durable.</li> </ul>
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	<ul style="list-style-type: none"> <li>Wash in cold water; low dryer.</li> <li>Low/medium heat on iron.</li> </ul>
FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Nylon	<ul style="list-style-type: none"> <li>Strong; durable</li> <li>Does not mildew</li> <li>Lustrous</li> <li>Does not shrink</li> <li>Non-absorbent</li> </ul>	Sportswear Swimwear Hosiery Underwear Raincoats Ski wear	<ul style="list-style-type: none"> <li>An all nylon garment will not mildew.</li> <li>Absorbs oily stains and leaves a spot.</li> <li>Can be damaged by strong sunlight.</li> <li>Tends to build up static electricity.</li> <li>Durable; withstands wear.</li> </ul>
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, round, gray or fawn-colored bead	<ul style="list-style-type: none"> <li>Wash in cold water; low dryer.</li> <li>Low/medium heat on iron.</li> <li>Washes easily.</li> </ul>



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FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Rayon	<ul style="list-style-type: none"> <li>Absorbs moisture</li> <li>Supports mildew</li> <li>Does not spring back to shape</li> <li>Lacks strength</li> <li>Is heat sensitive</li> <li>Wrinkles easily</li> </ul>	Sportswear Blouses Shirts Neckties	<ul style="list-style-type: none"> <li>Rayon garments are comfortable in warm weather.</li> <li>Burns readily.</li> <li>Mildews if stored in damp place.</li> <li>Not as durable as some other fibers.</li> <li>May be damaged by sunlight or acid solutions.</li> </ul>
FIBER ORIGIN	BURN TEST	CARE	
Chemical	Grayish-black ash	<ul style="list-style-type: none"> <li>Wash by hand in cold water; hang to dry (or dry clean).</li> <li>Low heat on iron.</li> </ul>	
FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Polyester	<ul style="list-style-type: none"> <li>Strong; durable</li> <li>Does not absorb moisture</li> <li>Absorbs oil and grease; leaves stains</li> <li>Holds shape; stable</li> <li>Heat sensitive</li> <li>Resists wrinkling</li> </ul>	Sportswear Suits Blouses Dresses Shirts Scarves Neckties Household items	<ul style="list-style-type: none"> <li>Washes easily and dries quickly.</li> <li>Retains a heat-set.</li> <li>Will melt if ironed at too high a temperature.</li> </ul>
Chemical	Hard, brownish beige bead		<ul style="list-style-type: none"> <li>Wash in cold water; low heat on dryer or hang to dry.</li> <li>Low heat on iron.</li> </ul>



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Spandex	<ul style="list-style-type: none"> <li>Withstands wear</li> <li>Strong; durable</li> <li>Lightweight</li> <li>Heat sensitive</li> <li>Stretches yet retains shape</li> <li>Does not absorb moisture</li> </ul>	Girdles, bras Swimwear Ski wear Support hose Garments that need a lot of stretch Sportsewear	<ul style="list-style-type: none"> <li>Stretches with body but returns to original shape when wet or dry.</li> <li>Not damaged by perspiration, body oils, or chemicals.</li> <li>Can be damaged by heat.</li> </ul>
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	<ul style="list-style-type: none"> <li>Wash in cold water; low heat on dryer or hang to dry.</li> <li>Low heat on iron.</li> </ul>
FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Triacetate	<ul style="list-style-type: none"> <li>Does not absorb moisture</li> <li>Lacks strength</li> <li>Springs back into shape</li> <li>Resists wrinkling</li> <li>Dries quickly</li> <li>Not very durable</li> </ul>	Sportswear Dresses Garments with pleats Skirts	<ul style="list-style-type: none"> <li>Garments of triacetate maintain a crisp finish.</li> <li>Not damaged by heat.</li> <li>Builds up static electricity.</li> <li>Dries quickly.</li> <li>Not as durable as garments from other fibers.</li> </ul>
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	<ul style="list-style-type: none"> <li>Wash in warm/cold water; low/medium heat on dryer or hang to dry.</li> <li>Low/medium heat on iron.</li> </ul>