

## Glossary

### Chapter 3 Section 1

comparison microscope	a compound microscope that allows the side-by-side comparison of samples, such as hair or fibers
cortex	the region of a hair located outside the medulla that contains granules of pigment
cuticle	the tough outer covering of a hair that is composed of overlapping scales
gas chromatography	a method of separating chemicals to establish their quantities
hair follicle	the actively growing base of a hair that contains DNA and living cells
hair shaft	part of the hair above the follicle; contains mitochondrial DNA
keratin	a type of fibrous protein that makes up the majority of the cortex of a hair
medulla	the central core of a hair
melanin granules	bits of pigment found in the cortex of a hair
mitochondrial DNA (mtDNA)	genetic material in the mitochondria of the cytoplasm of a cell; only inherited from the mother
nuclear DNA	genetic material in the nucleus of a cell

### Chapter 3 Section 2

amorphous	without a defined shape; fibers composed of a loose arrangement of polymers that are soft, elastic, and absorbing (for example, cotton)
crystalline	geometrically shaped; fibers composed of polymers packed side by side, which makes them stiff and strong (for example, flax)
direct transfer	the passing of evidence, such as a fiber, from victim to suspect or vice versa
fiber	the smallest indivisible unit of a textile, it must be at least 100 times longer than wide
mineral fiber	a collection of mineral crystals formed into a recognizable pattern
monomer	small, repeating molecules that can link to form polymers
natural fiber	a fiber produced naturally and harvested from animal, plant, or mineral sources
polymer	a substance composed of long chains of repeating molecules (monomers)
secondary transfer	the transfer of evidence such as a fiber from a source (for example, a carpet) to a person (suspect), and then to another person (victim)
synthetic fiber	a fiber made from a manufactured substance such as plastic
textile	a flexible, flat material made by interlacing yarns (or threads?)
warp	a lengthwise yarn or thread in a weave
weft	a crosswise yarn or thread in a weave
yarn (thread)	fibers that have been spun together