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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Hair and Fiber

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2P |  | 3B |  |  |  |  |  |  |  U |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  B |  |  I |  |  | 4C |  |  |  |  T |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5M |  I |  T |  O |  C |  H |  O |  N |  D |  R |  I |  A |  L |  D |  N |  A |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  C |  |  |  R |  |  |  |  C |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  | 6M |  A |  C |  R |  O |  M |  O |  L |  E |  C |  U |  L |  E |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  P |  |  |  X |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  | 7A |  |  |  |  |  | 8M |  |  N |  |  | 9A |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  N |  |  |  |  |  |  O |  |  E |  |  |  C |  | 10L |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  A |  |  |  | 11N |  Y |  L |  O |  N |  |  |  R |  |  Y |  |  |  |  | 12C |  |  |
|  |  |  |  |  |  |  |  |  |  G |  |  |  |  |  |  E |  |  T |  |  |  Y |  |  O |  |  |  |  |  A |  |  |
|  |  |  |  |  |  |  |  |  |  E |  |  | 13R |  |  |  C |  |  |  |  |  L |  |  C |  |  |  |  |  T |  |  |
|  |  |  |  |  |  |  | 14M |  A |  N |  U |  F |  A |  C |  T |  U |  R |  E |  D |  F |  I |  B |  E |  R | 15S |  |  |  A |  |  |
|  |  |  |  |  |  |  |  |  |  P |  |  |  Y |  |  |  L |  |  |  |  |  C |  |  L |  |  P |  |  |  G |  |  |
|  |  |  |  |  |  |  |  |  |  H |  | 16P |  O |  L |  Y |  E |  S | 17T |  E |  R |  |  |  L |  |  A |  |  |  E |  |  |
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|  |  |  |  |  |  |  |  |  |  S |  |  |  |  |  | 18M |  |  L |  |  |  |  |  |  |  D |  |  |  P |  |  |
|  |  |  |  | 19N |  |  |  | 20M |  E |  L |  A | 21M |  I |  N |  E |  |  O |  | 22P |  O |  L |  Y |  M |  E |  R |  |  H |  |  |
|  |  |  |  |  U |  |  |  |  |  |  |  |  O |  |  |  D |  |  G |  |  |  |  |  |  |  X |  |  |  A |  |  |
|  |  |  |  |  C |  |  |  |  |  |  |  |  D |  |  |  U |  |  E |  |  |  |  |  |  |  |  |  |  S |  |  |
|  | 23F |  O |  L |  L |  I |  C |  U |  L |  A |  R |  T |  A |  G |  |  L |  | 24N |  A |  T |  U |  R |  A |  L |  F |  I |  B |  E |  R |  S |
|  |  |  |  |  E |  |  |  |  |  |  |  |  C |  |  |  L |  |  P |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  A |  | 25M |  O |  N |  O |  M |  E |  R |  |  |  A |  |  H |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Across****5.** DNA present in small structures outside the nucleus of a cell**6.** molecule with a high molecular mass**11.** exceptionally strong, supple, resists damage from oil and chemicals **14.** fibers derived from either natural or synthetic polymers**16.** strong, resistant to stretching and shrinking, crisp when wet or dry**20.** white, dyeable, flame resistant, low thermal conductivity **22.** substance composed of a large number of atoms that are usually arranged in repeating units**23.** Translucent piece of tissue surrounding the hair shaft near the root that contains the richest source of DNA associated with the hair**24.** fibers derive from animal or plant sources**25.** basic unit of structure from which a polymer is constructed | **Down****1.** Scale structure covering exterior of the hair**2.** extremely flame resistant, will not burn or melt**3.** thermal bonding, self bulking, unique cross sections**4.** Main body of the hair shaft**7.** Initial growth phase during which the hair follicle actively produces hair**8.** two or more atoms held together by chemical bonds**9.** soft, warm, wool-like, quick drying, retains shape**10.** strong, soft, absorbent, good dyeablity**12.** Transition stage between the anagen and telogen phases of hair growth**13.** highly absorbent, versatile, good drapability**15.** can be stretched 500% without breaking**17.** The final growth stage in which hair naturally falls out of the skin**18.** Cell column running through the center of the hair**19.** DNA that is present in the nucleus of a cell and that is inherited from both parents**21.** soft, abrasion and flame resistant, resists acids |