

Name: Key

Date: _____

Period: _____

The Form and Structure of Hair (pgs. 110-114)

1. Another name for the form and structure of something is its

morphology.

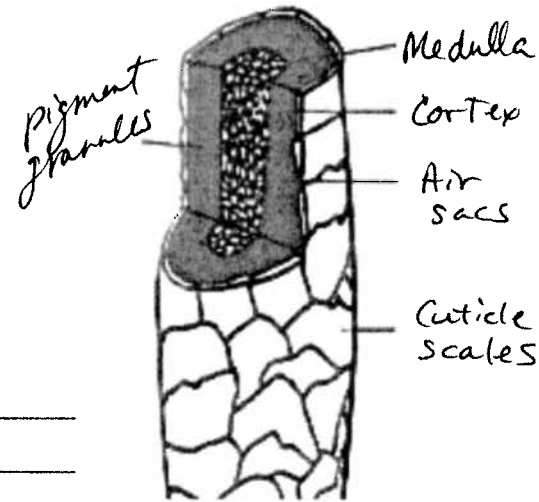
2. In a 24hour period, the average person sheds 100 hairs from the scalp alone.

3. Label the parts of the hair shaft pictured here.

4. A follicle is the organ out of which a hair shaft grows.

5. Why is analyzing hair useful for drugs and poisons? _____

Toxins in the blood make their way to the follicle and into the hair.



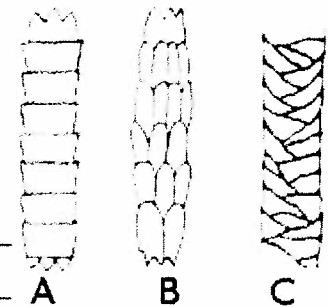
6. Match the following descriptions of the parts of a hair shaft.

- B cortex a. spongy interior core of hair that gives it flexibility; appears as a canal in the middle of the shaft
- C cuticle b. middle layer of the hair shaft that provides strength; comprises most of the hair mass
- A medulla c. tough, clear outside covering of the hair shaft

7. What is unique about the cuticle of human hair? The imbricate pattern shows cuticles that are very close together.

8. Identify the origin of the hair shafts pictured here.

- C Human hair
- A Mouse
- B Cat



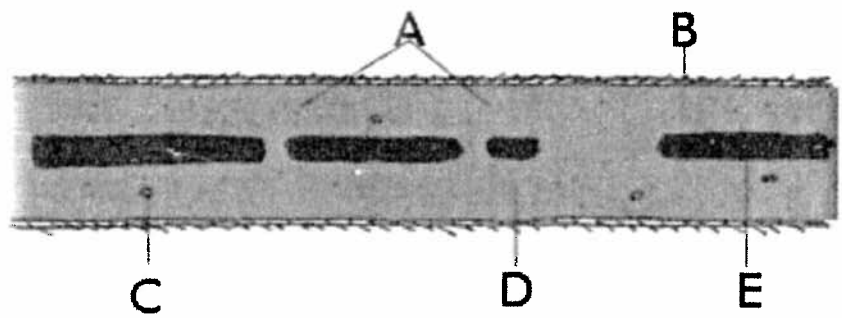
9. Why does human hair have a characteristic odor when it burns? _____

Sulfur bonds in the protein break down

10. The protein of which hair is made is Keratin.

11. Label the longitudinal diagram of the hair shaft below.

- C Cortical fusi
- D Cortex
- A Pigment granules
- E Medulla
- B Cuticle scales



12. Pigment that makes hair black, brown, red or yellow is found in the cortex.

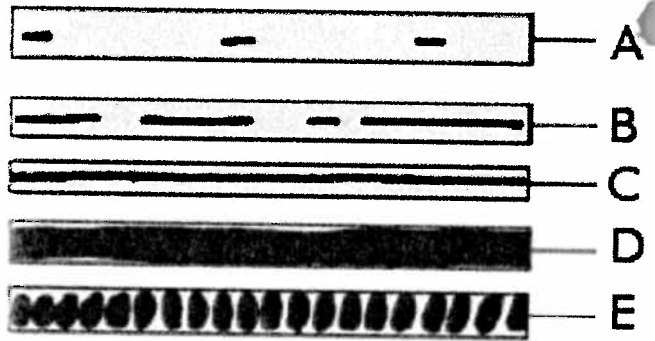
Name: _____

Date: _____

Period: _____

13. Distinguish the medulla patterns in the diagram below.

- C Continuous (human)
- D Continuous (animal)
- A Fragmentary
- B Interrupted
- E Stacked



14. The medulla is normally invisible, except in the hair of which people groups? _____

Native American, Asian

15. What hair shapes are generally found among these people groups?

African peoples: crescent

Whites, Mexicans, and Middle Eastern peoples: oval

Asians and Native American peoples: Round

16. Head hair, on average grows 1 cm per month.

17. Put the three stages of growth of hair into chronological order (*telogen*, *catagen*, *anagen*). _____

Anagen Catagen Telogen

18. The stage of hair growth that lasts up to five years is the anagen phase.

19. Hairs found on a hair brush are normally from the telogen phase.

20. Match the hair end description with a condition that would explain it.

C Squared off at the tip

A. mature human hair

A Rounded at the base

B. use of harsh chemicals, or overuse of a blow dryer

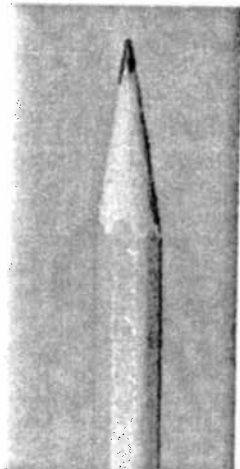
D Tapers to a point

C. recently cut

B Frayed or split ends

D. uncut for a period of time

21. List three reasons how a pencil can be a useful analogy for a hair shaft.



wood - cortex
lead - medulla
paint - cuticle
eraser - root