Forensic Science

Anthropology Study Guide

Name_____

Per____Date_____

A. Vocabulary-Give examples of or be able to define each of the following

Blunt force trauma	Projectile trauma	Sharp force trauma	
Negroid	Caucasoid	mongoloid	

B. Concepts Questions

1. List the 7 pieces of information that a forensic anthropologist can determine from analyzing bones.

Topic 1: Sex Determination

2. Which bones are used to determine if a skeleton is male or female? Which bone is most accurate if used alone? Why is sex determination only possible in adults?

- 3. What are the two principles of sexual dimorphism?
- 4. List the 9 different features on the skull that help determine sex.
- 5. List all of the major differences between the male and female pelvis.

Topic 2: Differences between human and animal bones

6. List and discuss the 5 areas that are distinctly different between human and animal bones.

Topic 3: Race Determination

7. What are the 3 races that forensic anthropologists split up the human population into? List the areas of the world each of these come from.

- 8. Which bone is examined closely in order to determine race?
- 9. What 2 primary regions of the skull are analyzed to determine race?
- 10. What shape of eye orbits does each race have?
- 11. List the differences in the nasal region for all 3 races.

Topic 4: Long Bone Anatomy

- 12. Draw and label all of the parts of the long bone.
- 13. Which part of the long bone gives clues as to how old the person is?

Topic 5: Using bones to determine height/stature

14. Which bones are used to determine the height of an individual?

15. Are the formulas for determining height the same for all 3 race designations?

16. Practice: A skeleton is found in the mud underneath a construction site. It is determined to be a negroid female. Calculate her height if her femur measures at 46.5 cm.

Topic 6: Bone Traumas

17. List and draw pictures of the 6 major types of bone fractures.

18. List the types of bone fractures that often occur during homicides and which occur more often in accidents.

19. Why is it difficult to determine if a young child has been strangled?

20. List the 4 stages of bone repair.

Topic 7: Determining Age Using Bones

21. Why is it easier to get a more accurate age on younger people than older people? (List at least 3 reasons).

22. List the 5 regions of the body that are analyzed for age determination.

23. What happens to the skull bones at age 7?

24. What happens to the ribs and vertebrae and old age starts to set in?

25. Why are teeth such a good indicator or age if the person is less than 20 years old?

26. Do all of our bones stop growing at the exact same time?

C. Practice Questions

1. A skeleton is discovered and it is determined that the upper limbs are straight with few projections, the eye orbits are round, the pelvis has a large opening between the hips with a large angle for the pubic symphysis, the ribs are starting to show bony structures, and the femur measures 42.3 cm. Tell everything you can about this skeleton with justification.

2. A human skull is discovered with a large, robust general appearance and a large mastoid process. The skeleton likely belongs to a (male/female).

3. A human pelvis is found with an 85° pubic symphysis. The skeleton is most likely (male/female).

4. Bones are found that have curved upper limbs with many projections. The skeleton is most likely (human/animal).