Humane Meat Production Notesheet   
C. Kohn, Waterford WI

Name: Hour Date:

Date Assignment is due: Why late? Score: + ✓ -  
 Day of Week Date If your project was late, describe why**Directions**: Use the accompanying PowerPoint (*available online*) to complete this sheet. This sheet will be due upon the completion of the PowerPoint in class. These assignments are graded on a +/✓/- scale.

1. Meat is primarily made from what kind of tissue?
2. What is muscle? A kind of that is comprised of   
     
   that are primarily made from
3. What are actin and myosin?
4. True or false: actin and myosin are only found in muscle cells.
5. What is a muscle fiber?
6. What is a myofibril?
7. In the space below, summarize how a muscle fiber is able to lengthen or shorten during contraction. Be sure to use each of the following terms: actin, myosin, Z-disk, globular heads.
8. Draw the actin, myosin, and Z-disk in a myofibril in the space below. Be sure to label each component.
9. What two roles does ATP play in the contraction of a muscle fiber?
10. Why are calcium, troponin, and tropomyosin necessary for a muscle to contract?
11. Why would an animal be unable to move if it had hypocalcemia?
12. T or F – meat is the same thing as muscle. \_\_\_\_ Explain:
13. How does the transition to anaerobic glycolysis as blood stops flowing affect the transition of muscle to meat?
14. In the space below, describe four factors that occur in the transition from muscle to meat.
15. What is rigor mortis?
16. Why is meat a great dietary source of amino acids?
17. What is the difference between an essential amino acid and a nonessential amino acid?
18. T or F – meat is considered a complete protein because it is only comprised of essential amino acids. \_\_\_\_  
      
    Explain:
19. If someone is a vegetarian, how do they get all of the amino acids they need if their sources of protein are incomplete proteins?
20. What is marbling?
21. Why should a consumer care about marbling?