Name Period Date

Fetal Pig Lab ???'s--These should be answered before each day's lab

Pig Lab #1 - External Anatomy

1. What is meant by gestation period?

2. What is the approximate age of your pig?

3. How many digits are present?

4. How does a fetus get rid of its waste products?

5. What type of external features are used to separate mammals into orders?

6. Name the two external characteristics which distinguish mammals from other animals.

7. What goes in and out of the external nares?

8. What is another word for pinna? What is its function?

9. What is the function of the pig's vibrissae?

10. What is the function of the pig's nictitating membrane?

11. What is another name for the chest region of the pig?

12. What is another name for the "belly " region of the pig?

13. What is meant by “urogenital openings”?

14. Describe the major differences between a male and female pig's urogenital opening(s).

15. What does the urethral opening excrete in males? Females?

16. What is the vaginal orifice?

17. What does the scrotum contain?

18. **Explain** the difference between digitigrade, plantigrade, and unguligrade locomotion.

Which type is seen in pigs? Dogs? Deer? Humans?

External Anatomy Important Vocabulary Words - Write a **location** description of each so you can **locate** it.

1. Pinna
2. Philtrum
3. Vibrissae
4. Nares
5. Mammary Glands
6. Nipples
7. Trunk

8. Thorax
9. Abdomen
10. Anus
11. Umbilical Cord
12. Tongue with taste buds
13. Penis
14. Scrotum
15. Urethral Opening
16. Vaginal Opening
17. Age of Pig
18. Gender of Pig
19. Posterior End
20. Anterior End
21. Ventral Surface
22. Dorsal Surface
23. Dorsal
24. Ventral
25. Anterior
26. Posterior
27. Nictitating Membrane

Pig Lab #2 - Oral Cavity

1. Why is the sense of taste and smell important to organisms?

2. Why do you think the incisors of rodents (such as mice and rats) are so large and never stop growing? Why do pigs and humans not need these large incisors?

3. How does the tongue aid in eating?

4. How are the hard and soft palate indirectly used in digestion?

5. The hard palate separates the oral cavity from which other cavity?

6. What is the function of the epiglottis?

7. What substances are secreted by the oral cavity of humans that aid in digestion? Name these substances and tell what each does to help digestion.

8. The esophageal opening is the top of which tube? Where does this tube lead?

<u>Oral Cavity Important Vocabulary Words</u>

1. Tongue
2. Hard Palate
3. Soft Palate
4. Epiglottis
6. Esophageal Opening

7. Nasopharynx
8. Oral Cavity
9. Taste Buds
10. Incisors
11. Cheek Teeth

Pig Lab #3—Removal of the Body Block

1. What is the function of the chest plate?

Pig Lab #4- Respiratory System

1. Describe the exchange of gases in the lungs.

2. Explain (in list form) the pathway of air from outside the body to the bloodstream. Be sure to use the following words: nose, mouth, nasal cavity, lung, bronchi, trachea, alveoli, bronchioles.

3. Why is the trachea constructed with rings of cartilage?

4. What's the primary function of the respiratory system?

5. Why do you think the bronchi branch extensively into tiny air tubes?

6. Carbon dioxide is exhaled from the lungs. How is it produced?

7. What molecule carries oxygen and carbon dioxide?

8. What is the name of the small sacs that exchange gases? How does smoking affect these packets?

<u>Respiratory System Important vocabulary words</u>

1. Trachea
2. Larynx
3. Bronchi
4. Diaphragm
5. Lungs
6. External nares
7. Bronchioles

Pig Lab #5 - Circulatory System

1. What's the function of the thymus?

2. Which is larger, the right or left ventricle? Why?

3. Describe the difference between the right and left atria.

4. From what chamber does the pulmonary artery exit?

5. From what chamber does the aorta arise?

6. To what structure do the pulmonary arteries lead?

7. What is the importance of the coronary circulation?

8. What problem results if coronary circulation is interrupted?

9. Why are arteries larger than veins?

10. What are the primary functions of the circulatory system?

11. Name the process that moves molecules from an area of high concentration to an area of low concentration. In which blood vessels does this occur?

12. What is the function of the heart valves?

13. In humans, what results when a valve is leaking blood backwards in the heart?

14. Why is it so difficult to get to the heart during heart surgery?

15. Identify the body part(s) supplied by the artery or vein listed below:
    a. hepatic artery

    b. carotid artery

    c. thoracic aorta

    d. aorta

    e. cranial vena cava

    f. caudal vena cava

16. Explain in list form the complete trip of a drop of blood through the heart and body. Start the trip in the right atrium. Be sure to use the words below:
right atrium, aorta, left atrium, pulmonary arteries, right ventricle, pulmonary veins, left ventricle
cranial (anterior) vena cava, caudal (posterior) vena cava, semilunar valve, lungs

Circulatory System Important Vocabulary Words

1. Aorta in heart area;
2. Septum
3. Pericardium
4. R & L Atrium
5. R & L Ventricle
6. Pulmonary artery
7. Pulmonary Vein
8. Vena Cava
9. Coronary arteries and veins

Pig Lab #6 - Digestive System

1. To what organ does the umbilical vein lead? Why does it lead there?

2. Describe the mesentery. What does it do?

3. Where is the mesentery attached?

4. In humans, what structure is found at the junction of the small and large intestine?

5. What is the posterior opening of the digestive tract called? The anterior opening?

6. Describe three functions of the liver?

7. What does bile do, where is it made, stored, and how does it get to the small intestine?

8. List the function of each organ below:
   a. stomach
   b. esophagus
   c. small intestine
   d. large intestine
   e. pancreas
   f. liver
   g. gall bladder

9. What structure separates the thoracic cavity from the abdominal cavity? Spasms of this muscle cause what problem?

10. List two organs found in the thoracic cavity.

11. Describe the appearance of the inside of the stomach. How do the rugae within the stomach aid in mechanical digestion?

12. How can you tell where the small intestine stops and the large intestine begins? What structure is located where they join?

13. How do enzymes produced in the pancreas come in contact with food since food does not pass through the pancreas?

14. What is done in a human appendectomy? Through which cavity does the surgeon enter?

Digestive System Important Vocabulary Words

1. Esophagus in throat, in thorax
2. Stomach
3. Rugae
4. Small Intestine/Mesentery
5. Caecum
6. Large Intestine
7. Rectum
8. Pancreas
9. Spleen
10. Liver
11. Gall bladder
12. Bile Duct

Pig Lab #7 - Urinary System

1. What is the function of the kidneys? How many kidneys does the pig have?

2. What substances are carried in the urethra?

6. Which blood vessel - renal artery or renal vein - would have the cleanest blood? Why?

7. What helps to protect kidneys within the pig's body?

Urogenital System Important vocabulary words

1. Kidneys
2. Ureter
3. Urinary Bladder
4. Urethra
5. Medulla of kidney
6. Cortex of kidney
7. Renal artery & veins

Pig Lab #8—Reproductive System

1. In which of the female's reproductive structures would embryonic or fetal pigs be found?

2. How is a pig uterus different in shape from a human uterus? What purpose does that shape serve for the pig?

3. List a function for each of the following and write whether each is a male or female structure.
   a. ovary
   b. testis
   c. uterine horn
   d. vagina
   e. epididymis
   f. urethra

4. Why is the scrotum important?

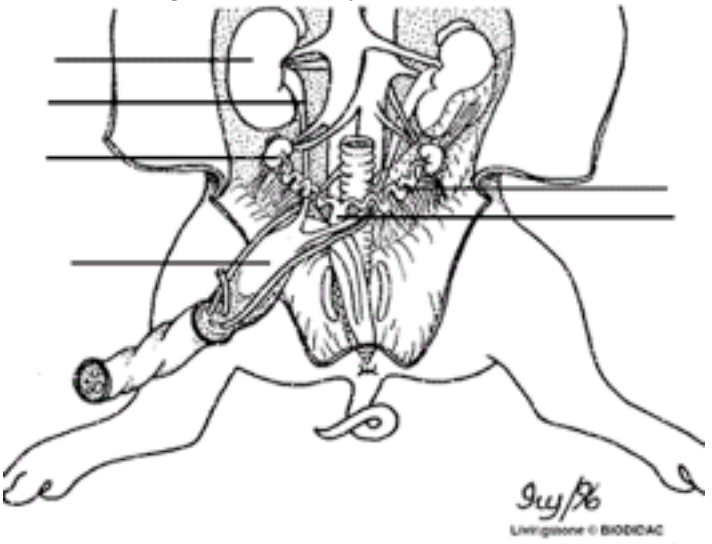
Male

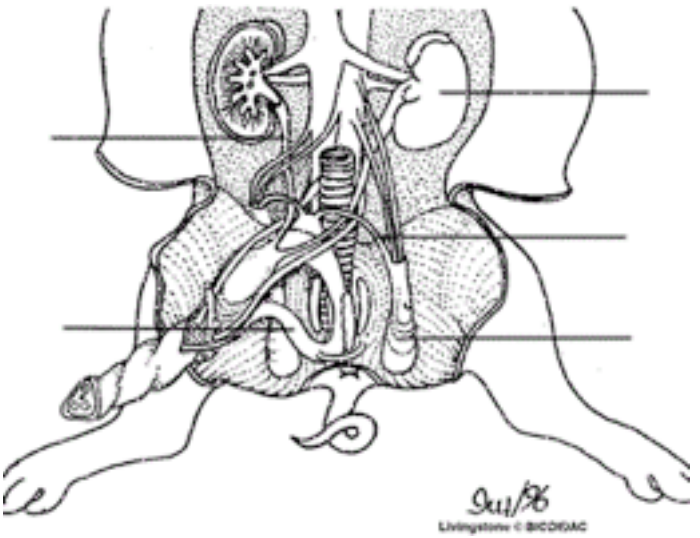
1. Testes
2. Scrotum
3. Vas deferens
4. Epididymis
5. Penis

Female

6. Ovaries
7. Oviduct
8. Vagina
9. Cervix
10. Uterus

Label the diagrams (Identify Male and the Female)





Congratulations! Review with your group and study for the Lab Practical group test which asks you to know terminology and structures. Keep all the parts of your pig together and have your teacher check the quality of the dissection.