Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Fetal Pig Dissection: External Anatomy**

External Anatomy

1. What sex is your pig? \_\_\_\_\_\_\_\_\_

2. Feel the edge of the mouth for teeth. Does the fetal pig have teeth? \_\_\_\_\_\_\_\_\_ Are humans born with teeth? \_\_\_\_\_\_\_\_

3. Observe the toes of the pig. How many toes are on the feet? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
What class of placentals do pigs belong to? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Observe the eyes of the pig, carefully remove the eyelid so that you can view the eye underneath. Remove the lens – what shape is it?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ How does the shape of their lens affect their sight?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| The IncisionPlace your fetal pig in the dissecting pan ventral side up. Use string to "hog-tie" your pig so that the legs are spread eagle and not in your way. Use scissors to cut through the skin and muscles according to the diagram. Do not remove the umbilical cord. In the first section, you will only examine the abdominal cavity (the area below the ribcage). After completing the cuts, locate the umbilical vein that leads from the umbilical cord to the liver. You will need to cut this vein in order to open up the abdominal cavity.Locate each of the organs below, check the box.  | http://www.biologycorner.com/resources/pig_incision.gif |

1. **Diaphragm**. This muscle divides the thoracic and abdominal cavity and is located near the ribcage. The diaphragm aids in breathing. 

2. **Liver**. This structure is lobed and is the largest organ in the body. The liver is responsible for making bile for digestion. 

3. **Gall bladder**. This greenish organ is located underneath the liver; the bile duct attaches the gall bladder to the duodenum. The gall bladder stores bile and sends it to the duodenum, via the bile duct. 

4. **Stomach**. A pouch shaped organ that rests just underneath and to the pig's left. At the top of the stomach, you'll find the esophagus. The stomach churns and breaks down food. 

5. The stomach leads to the **small intestine**

6. The small intestine is held together by **mesentery**. Here, further digestion occurs and nutrients are absorbed through the arteries in the mesentery. These arteries are called **mesenteric arteries**.

7. **Pancreas**: a bumpy organ located along the underside of the stomach, a pancreatic duct leads to the duodenum. The pancreas makes insulin, which is necessary for the proper uptake of sugars from the blood.

8. **Spleen**: a flattened organ that lies across the stomach and toward the extreme left side of the pig. The spleen stores blood and is not part of the digestive system. On the underside of the spleen, locate the splenic artery. 

9. The large intestine can be traced to the **rectum**. The rectum lies toward the back of the pig and will not be moveable. The rectum opens to the outside of the pig, or the anus. The large intestine reabsorbs water from the digested food, any undigested food is stored in the rectum as feces.

10. Lying on either side of the spine are two bean shaped organs: the **kidneys**. The kidneys are responsible for removing harmful substances from the blood, these substances are excreted as urine.

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Identify the organ (or structure)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Also called the windpipe, cartilage rings hold it open

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Stores bile, lies underneath the liver.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the voice box, contains the vocal cords

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Separates the thoracic and abdominal cavity; aids breathing.

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Membrane that holds the coils of the small intestine.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Stores urine

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 bean shaped organs, filter wastes from the blood

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The last straight stretch of the large intestine before it exits at the anus.

9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bumpy structure under the stomach; makes insulin

10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Stores and releases eggs in females

11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Makes sperm in males