

Fetal Pig Dissection Lab

Introduction: In this lab you will be examining many characteristics of an unborn mammal--the fetal pig. Dissection will help you to get a 3-dimensional picture of how all the systems fit together. You've seen separate diagrams of many of the major systems. Now you'll get to see how they are arranged spatially. You'll also get a better idea of the texture of many organs that make up the pig's system. For additional help at home point you web browser to <http://www.esu7.org/~lweb/Lakeview/science/fetal.html>.

This lab will be broken up into the following labs:

- #1- External Anatomy
- #2- Oral Cavity
- #3- Digestive System
- #4- Circulatory System
- #5- Respiratory System
- #6- Urogenital System
- #7- Nervous System

Materials: preserved fetal pig, dissecting pan, scissors, scalpel, forceps, probe, and twine

General Directions: All underlined words must be located on your pig and all numbered questions must be answered on each of your packets. Your teacher will check the questions as you work through the laboratories. Most cuts can be done with the scissors. Dissection is an art and you must be as careful as you can during this laboratory.

Pig Lab #1 - External Anatomy - see figure "Lab 1"

You will be examining several characteristics of an unborn mammal. Use figure 1 (p. 9) to learn the directional names for the pig. The period of gestation for the pig is 112-115 days.

The age of the fetus can be estimated by measuring the body length from the tip of the snout to the attachment of the tail. Compare this length to the data given on relative sizes of a fetal pig at different times during gestation or the time of development inside the uterus. (mm = millimeters)

21 days - 11 mm	56 days - 40 mm
35 days - 17 mm	100 days - 220 mm
49 days - 28 mm	115 days - 300 mm

Generally speaking, orders of mammals are recognized rather easily by their external appearance. These external features which separate mammals into orders are such traits as the number of digits (toes or fingers) on the feet, method of walking or other locomotion and characteristics of the teeth.

Mammals have two unique external characteristics which distinguish them from all other vertebrates: (1) all mammals have hair at some time during their development, and (2) all female mammals possess mammary glands with external openings for nourishing the young. Your fetal pig probably does not have a lot of hair due to the fact that it is not fully developed yet. However, at maturity most pigs do have some strands of hair on their body.

The lips around the mouth are well developed and the upper lip is usually cleft in the center by a groove called the philtrum. Humans also have a philtrum. This is the indent underneath your nose.

The external nares (nostrils) are found on the nose.

Examine the ears. They have a flexible outer flap called the pinna. The pinna helps the pig hear by focusing the sound.

Many mammals have sensory facial hairs called vibrissae; however, our pigs do not possess these yet. They are evident once a pig reaches maturity. They help organisms feel their way around in the dark.