Lab 4: Circulation

Circulatory pathways pp. 173-184, p. 186 **questions** 1-12, 15 & 16
Vessel maps pp C48 -49 & Hepatic portal system p. 213
Blood pp. 187 – 189, p. 198 **questions** 1-5, 15

Cardiovascular System: pp. 173-177
-We covered fetal circulation last week, but be sure to review and be able to compare to adult circulation.

Pulmonary Circuit: pp. 177-178
-Review circulation in the lungs (we also covered this last week)

Systemic Circuit: pp. 178-184 & p. 213
-Be able to identify the arteries and veins of your pig in the thoracic and abdominal cavities
-Use pp. C48-49 in order to find the vessels you are responsible for knowing
-Think of the vessels as being a road map
-The names of vessels usually give you an indication of where they are going to or coming from
Arteries: **right & left common carotid, right & left subclavian, brachiocephalic, aortic arch, arterial duct, pulmonary trunk, dorsal aorta, celiac, mesenteric, right & left renal, right & left iliac, umbilical**
Veins: **right & left internal jugular, right & left external jugular, right & left subclavian, anterior (superior) vena cava, posterior (inferior) vena cava, umbilical, hepatic portal (p.197), right & left renal, right & left common iliac**
-use p. 213 for the hepatic portal vein (do not remove any part of the liver)
-Hepatic portal vein takes blood from intestinal capillaries to the capillaries in the liver,
-DO NOT REMOVE ANY ORGANS
-Use your probe to tease away tissue and membrane to find the vessels
-If you have good veins, please let me know and do not remove them!
-you can group up with someone else to view the arteries
-Once you are confident in identifying the veins, you may remove the veins in order to find the arteries, which will be below (inferior) to the veins in most cases
-Use the demo pig to check your work (has both arteries and veins)
-Skip section 14.4 blood vessel comparison (arteries are thicker walled then veins)

-Understand how blood flows from artery → arteriole → capillary → venule → vein

The Blood: pp. 187-189
-Read about red blood cells (erythrocytes) and white blood cells (leukocytes)
-Use the demo microscopes under high power to locate the 5 types of white blood cells mixed in with the red blood cells:

Neutrophil, Eosinophil, Basophil, Monocyte, Lymphocyte