**INFORMATION ON FROG ORGANS**

**Kidneys:** flattened bean shaped organs located at the lower back of the frog, near the spine. They are often a dark color. The kidneys filter wastes from the blood.

**Fat Bodies:** Spaghetti shaped structures that have a bright orange or yellow color, if you have a particularly fat frog, these fat bodies may need to be removed to see the other structures. Usually, they are located just on the inside of the abdominal wall. Fat bodies are a storage of fat for when energy is needed.

**Peritoneum**: A spider web like membrane that covers many of the organs. You may have to carefully pick it off to get a clear view.

**Liver:** The largest structure of the body cavity. This brown colored organ is composed of three parts or lobes. The right lobe, the left anterior lobe, and the left posterior lobe. The liver is not primarily an organ of digestion. It does secrete a digestive juice called bile. Bile is needed for the proper digestion of fats.

**Heart**: At the top of the liver is a triangular structure which is the heart. The left and right atrium can be found at the top of the heart. A single ventricle is located at the bottom of the heart. The large vessel extending out from the heart is the conus arteriosis.

**Lungs**: Locate the lungs by looking underneath and behind the heart and liver. They are two spongy organs. They kind of look like large raisins.

**Gall bladder:** Lift the lobes of the liver and find a small green sac. This is the gall bladder which stores bile.

**Stomach**: Curving from underneath the liver is the stomach. The stomach is the first site of chemical digestion. Frogs swallow their meals whole. Follow the stomach to where it turns into the small intestine. The pyloric sphincter valve regulates the exit of digested food from the stomach to the small intestine.

**Small Intestine:** Leading from the stomach—the first straight portion of the small intestine is called the duodenum, and the curled portion is the ileum. The ileum is held together by a membrane called the mesentery. Note the blood vessels running through the mesentery, they will carry absorbed nutrients away from the intestine. Absorption of digested nutrients occurs in the small intestine.

**Large Intestine:** As you follow the small intestine down, it will widen into the large intestine. It absorbs water.

**Cloaca:** Cloaca means sewer and is part of the large intestine. It is the last stop before wastes, sperm, or urine exit the frog’s body.

**Spleen**: Return to the folds of the mesentery and you will find the spleen. It is a dark red spherical object which serves as a holding area for blood.

**Esophagus**: Return to the stomach and follow it upward, where it gets smaller, and this is the beginning of the esophagus. The esophagus is the tube that leads from the frog’s mouth to the stomach. Open the frog’s mouth and find the esophagus. Poke your probe into it, and see where it leads.

**Bladder**: The bladder is an empty sac located at the lowest part of the body cavity. The bladder stores urine. It is empty and is hard to identify.

**Testes**: These organs are in male frogs. They are located at the top of the kidneys and are pale colored and roundish.

**Oviducts**: Females do not have testes, though you may see a curly type structure around the outside of the kidney. These are the oviducts. Oviducts are where eggs are produced. Males can have structures that look similar, but serve no actual purpose. In males they are called vestigial oviducts.

**Frog External Anatomy**

**Vomerine Teeth**: These teeth are small projections, bumps, in the top of the frog’s mouth that function in holding captured prey.

**Maxillary Teeth**: These teeth are found around the edge of the upper part of the mouth. The maxillary teeth are also used to hold captured prey.

**Nictitating Membrane**: This membrane is a transparent part of a frog’s lower eyelid that moves over the eye to clean it and protect it.

**Eustachian Tubes**: These tubes are openings in the mouth that lead to tubes that connect to the middle ear to equalize pressure.

**Tympanic Membrane**: This membrane are the frog’s eardrums and receives sound waves.

**Glottis**: This is the opening from the mouth into the respiratory system—leads to the lungs.

**Esophagus**: In the center of the mouth, toward the back is a single round opening. This is the esophagus. This tube leads to the stomach.

**Tongue**: The tongue is a muscular structure attached to the front of the mouth which is extended to catch insects (its food).

**Skin**: The inner layer of the skin is called dermis which contains blood vessels and pigment cells.