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

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# Simple Digestion

**Purpose**

The purpose of this exercise is to identify the location and function of the organs and systems within the simple digestive tract. [[1]](#endnote-1)

**Procedure:**

**Materials**

1. Digestive tract of fetal pig 4. Paper
2. Scalpel 5. Dissecting microscope
3. Labeling pins & tags

**Sequence of Steps**

*Spread the digestive tract out, so that all parts can be seen easily. Using the pins and tags, read through these steps labeling the digestive parts that are underlined in this lab.*

1. Find the dark, red-brown organ. It is the **liver**. Notice that the liver is divided into lobes.
2. Raise the right lobe of the liver. Observe the **gall bladder**, a small greenish sac embedded in the underside of this lobe.
3. Immediately under the left lobes of the liver lies the **stomach**. Trace the intestine from the stomach toward the posterior, until it joins the colon, or large intestine. The smaller tubing is the **small intestine**, while the larger tubing is the **large intestine**. Where the small intestine and large intestine join, there is a pouch called the **caecum**. In humans, the tip of the pouch is the appendix. Trace the colon toward the posterior. Just before it reaches the **anus,** there is a slight enlargement, the **rectum**.
4. The **pancreas**, a small pinkish, grainy organ, is also part of the digestive system. It lies just under the stomach, inside the bend made by the first section of intestine.
5. Remove a 3cm section of the small intestine and cut it lengthwise. Wash and examine its lining under a dissection scope. Describe its appearance in the observation section. The projections you see are called **villi**.

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**Observations**

1. Draw the digestive system as you have observed it, and label the parts underlined above.
2. Describe or draw the lining of the small intestine:

**Conclusions**

1. Fill in the table by listing the part or function of the proper organ.

|  |  |
| --- | --- |
| Part of Digestive Tract | Function |
|  | Controls passage of food from stomach to small intestine |
|  | Chemical digestion and absorption of food |
|  | Stores bile |
|  | Extension of the large intestine that is vestigial in humans |
|  | Storage of undigested food physical mixing of food |
| Liver |  |
| Villi |  |

1. How is the pig’s digestive system similar to humans?
2. What purpose does the digestive system serve?
3. Why is efficient digestion important when feeding livestock?

1. Agricultural Biology Curriculum Lesson Plans. Sacramento: California State Department of Education, Agriculture Education Unit, 1990. [↑](#endnote-ref-1)