# Chapter 34;Units 1-4

#### Learning Objectives:

* Biology 2 (II.7): Compare the structure of nutrient procurement and processing systems in plants and animals.
* Biology 2 (II.8): Describe the structure and function of the nervous system, the musculoskeletal system, the respiratory system, and the mechanisms of internal transport and regulation in various organisms.
* Biology 2 (V.1): Explain how regulatory mechanisms at the level of the whole organism ensure balance in living systems that interact continuously with their environments; compare regulatory mechanisms within and across species.

**Project 1:**

Complete the end of the chapter “Review Questions”. Make sure to answer each question thoroughly and include page numbers from the text where the answers can be found. Be prepared to discuss your answers in a group setting during class.

**Project 2:**

Complete the end of the chapter “Critical Thinking Questions” according to your group number. You will be sharing your responses with members from the other groups during class. (This is a modified “Jigsaw” method. To use this “Jigsaw” have everyone meet in their groups for a specified amount of time. While they are discussing their responses/ideas separate everyone into new groups so that each new group has a representative from the original group. Have the new groups meet for a specified amount of time to share their responses/ideas. This way each person holds a piece of the overall puzzle.)

Group 1: 20-23

Group 2: 24-27

Group 3: 28-31

Group 4: 32-36

**Project 3:**

Divide the class into small groups. Have each group create a diagram that describes how the human body would digest, absorb, and eliminate a hamburger. Their diagram should be both visual and descriptive. It should also address the various nutrients present in a hamburger. They can share their diagram in class, through their school’s LMS, or through Google Docs. (They could take a picture or scan the diagram to convert it to digital form.)

**Project 4:**

Create a table that compares the invertebrate incomplete, invertebrate complete, monogastric, avian, and ruminant digestive systems. Then answer the following questions…

1. What are the evolutionary benefits of each system?
2. How do the various systems fit the needs of the organisms that have them?
3. Explain the role of bacteria in animal digestion?
4. Would you consider the relationship between the intestinal flora and the host animal to be symbiotic? What type? Why?

**Project 5:**

Create a research paper over four diseases of the digestive system. In your report, make sure to address the cause, symptoms, and treatments of each disease. You can choose diseases from any animal.