UTI Instructions: Understanding Digestion

Introduction:
In this activity, students will review fundamental characteristics of digestion by examining data taken from the primary literature and answering questions designed to focus their attention on alternative explanations or hypothesis. Students practice analyzing data and learn general features of digestion.

Procedure:
Briefly introduce the activity by telling the class that they will be working on a worksheet covering digestion. Have students do a short warm-up exercise to get them thinking about digestion. Possible warm-ups are: list as many parts of the digestive system as you can think of, then compare lists with a neighbor; list all the jobs of the digestive system that you can think of, then compare lists with a neighbor; write down two or three body systems that interact closely with the digestive system and describe the interaction; review their pre-activity worksheet with a partner, etc. The idea is to transition students into thinking about digestion.

Divide the class into groups of three or four and distribute the student handout (NOT the pages containing the figures). Place the *Peromyscus* table on the overhead. Tell students to work on questions 1 through 8. As they do so, circulate around the room, providing direction or assistance as appropriate. After around 15 minutes or when it seems that most groups are done with at least questions 1 through 5, turn off the overhead to collect their attention. Choose a group to report their answer to question 1. Ask if there are other relationships or explanations from different groups. Proceed to question 2 and do the same. The key idea is that with four minds together, the students are covering just about every aspect of the questions and everyone is coming to similar conclusions. Skip questions 3 and 4, but have one group report on question 5.

Move on to the pythons data. Again, show overhead and have students work on the appropriate questions. When it seems that most groups have worked through the questions, collect their attention. Have a group report on question 10. Other groups will have chosen different data to explain, so have another group or two also report what they determined. Skip to question 12 and collect from the students all of the reasons they generated to explain increased metabolism in the python.

As time permits, continue in this same vein until the class time runs out. Focus the group reporting on questions that could have multiple correct answers, and emphasize that explanation of their answers is very important. If your professor has suggested it, have students do the Individual Accountability item. As students leave, give them the copies of the figures/tables so that they can work the rest of the questions. Collect handouts as determined by the professor for the course. It might be appropriate to make extra copies of the last two pages of the questions for students to take with them.