SLIDE ANSWERS

INVESTIGATION #1

1. Approximately how long has this animal been dead? 11 days

2. Why are maggots of different ages found in the body? Adult flies of the same species may arrive at different times and different species arrive at different stages of decomposition.

3. Other than temperature, what abiotic (external to the body) conditions would you want to obtain from the weather station to help you to be more confident of your time of death estimation? Humidity, rain, wind, and cloud cover.

One might conclude that the deer was hit by a car and not poached.

INVESTIGATION #2

1. Approximately how long has this animal been dead? 5 days

2. What effect, if any, do the outside temperatures have on your estimation of time of death? None. The windows were closed and the inside temperature was 72 degrees.

3. How does the fact that the windows were closed relate to the populations of flies you observed in and around the corpse? (i.e., Is there something different about this population than the population in Investigation #1?) How do you explain the absence of the Blow Fly? Since the windows were closed, the only flies that could have laid eggs on the body were those that were already inside at the time of death.

4. Do you suspect foul play? Explain. YES. The maggots behind the shoulder indicate an opening was present like a stab wound or bullet hole.

INVESTIGATION #3

1. Approximately how long has this animal been dead? 7 days (take into account both temperature and drugs when calculating this).

2. What effect, if any, does oleandrin have on your estimation of time of death? Explain how you used this information in calculating the postmortem interval. Oleandrin speeds up development of the Blow Fly by 2 to 3 days.

3. What effect, if any, does temperature have on your estimation of time of death? Explain how you used this information in determining the postmortem interval. High temperatures speed up larvae development, so you subtract from the number of days because they develop faster.

4. Does the location of the body, coupled with the insects recovered from it, suggest foul play, or can you tell from the information given? Not exactly. While the insects present were

consistent with the location, the presence of Oleandrin raised suspicions. More investigation is needed.

INVESTIGATION #4

1. Approximately how long has this animal been dead? 10 days

2. What effect, if any, does temperature have on your estimation of time of death? Since it is cooler in the forest, maggot development is slower. You have to add to the number of days it appears the maggots have been developing because it takes longer.

3. Does the location of the body, coupled with the insects recovered from it, suggest foul play, or can you tell from the information given? Yes. The Skipper Fly only lives in urban habitats. Its presence indicates the pig died in an urban habitat and was later moved to the woods after death. The missing hair on the pig's neck suggests a collar.