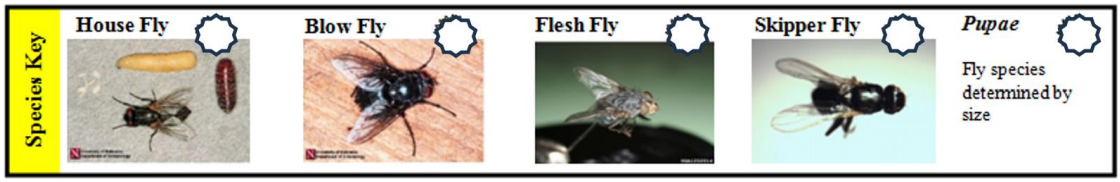
Crime Solving Insects

Name _____

Part A: Color code the fly species below based on the class notes.



Part B: Calculate the age of a larva using the data charts provided by your teacher.

Example 1: Blow fly
Temperature has averaged 72º F
Larva measures at 32 mm

Age = _____ days

Example 2: House fly
Temperature has averaged 65º F
Larva measures at 32 mm

Age = _____ days

Example 3: Flesh Fly
Temperature has averaged 80º F
Larva measures at 32 mm
Other data: Sunny area, no drugs

Age = _____ days

Part C: Explain how each factors affects your estimation of the PMI or interpretation of the insect evidence.

Temperature	
Ecological	
Drugs	
Species Succession	
Wounds	

Part D: Case Studies - For each case:

1st – Review the police report and weather report.

2nd – Examine & document the collected evidence on the charts on the back of this page.

- Measure the length of the maggots & pupae. Record your data in the chart.
- Consult the Species Key and the tables on your lab page to determine the various fly species that were found on the corpse and their ages.

3rd – Use the information from the reports and your examination to answer the questions on the back of this page.

Developed for use with the Crime Scene Insects activity available at
https://fyi.extension.wisc.edu/wi4hstem/files/2015/02/CSIfinal.pdf .

T. Tomm 2009 Updated 2024

CASE #1: OH. DEAR!

1. Approximately how long has this animal been dead?

2. Why are maggots of different ages found in the body?

3. Other than temperature, what other conditions would you want to obtain from the weather station or area to help you to be more confident of your time of death

Species & Stage	Size (mm)	Age

Case #2: Canine Caper

1. Approximately how long has this animal been dead?

2. How does air temperature and the fact that the windows were closed relate to the populations of flies you observed in and around the corpse?

3. Do you suspect foul play? Explain.

Species & Stage	Size (mm)	Age

CASE #3: DANDY'S DEATH

1. Approximately how long has this animal been dead?

2. What effect, if any, does oleandrin and temperature have on your estimation of time of death?

3. Do you suspect foul play? Explain.

Species & Stage	Size (mm)	Age

CASE #4: PORKY'S PERIL

1. Approximately how long has this animal been dead?

2. What effect, if any, does temperature have on your estimation of time of death in this case?

3. Do you suspect foul play? Explain.

Species & Stage	Size (mm)	Age