

Entomology Worksheet 1

1. Calculate the heat/thermal energy (accumulated degree hour) required for each stage of the Green Bottle Fly's life cycle.

Table 1: ADH of the Green Bottle Fly

From	To	Temperature	Hours	ADH (accumulated degree hour)
Egg	First instar	70° F	23	70 X 23 = 1610 ADH
		70° F	27	
		70° F	22	
		70° F	130	
		70° F	143	

3. Using the above Table 1 as the reference, calculate and fill in the blank areas.
- a. How many hours does it take for a green bottle fly egg to become an adult fly?
 _____ hours Convert these hours to _____ days and _____ hours
 - b. For a maggot at the beginning of the second instar stage, how many hours does it take to reach the third instar if the ambient temperature is at 77° F? _____ hours
 - c. If you are rearing a Green Bottle Fly pupa, at what temperature do you need to keep the pupa to have the adult fly merge in about 7 days? _____ F
 - d. Determine whether each of the following is a constant or a variable in the experiment:

Table 2: Constants and Variables

	Constant	Variable
Life cycle stages		
Temperature		
Time between the life cycle stages		
ADH		

4. Describe in your own words how insect life cycles can be used in estimating the time of death.