



FORENSIC ENTOMOLOGY GUIDED NOTES

Directions

Use your Life Cycle Card Sort and the slides to complete the following.

Blow Fly Life Cycle

Blow flies are attracted to dead bodies and often arrive within _____ of the death of an animal. They have a _____ life cycle that consists of egg, larva, pupa, and adult stages.

Label the life cycle diagram.

Fill in the blanks below.

1st: Adult flies lay eggs on the carcass.

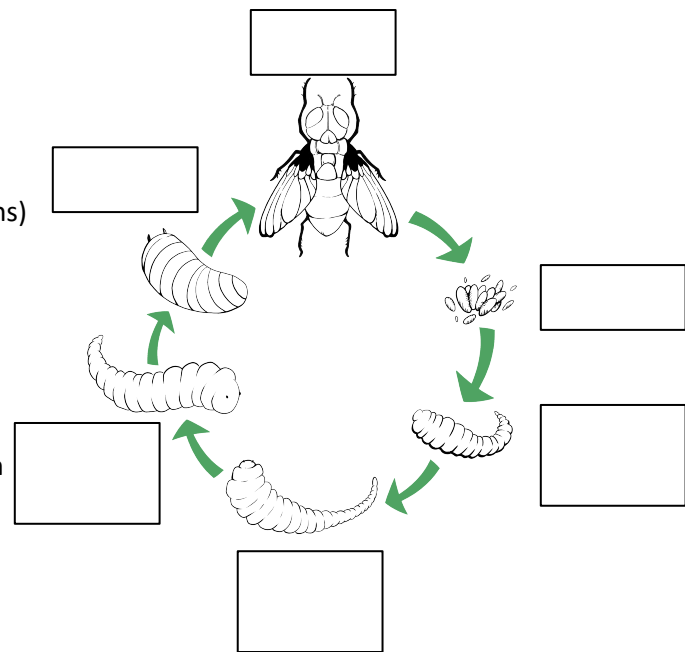
2nd: Eggs hatch into larva (maggots) in ____–____ hours.

3rd: Larvae continue to grow and molt (shed their exoskeletons) as they pass through the various instar stages.

- 1st Instar: ____ mm long after ____ days.
- 2nd Instar: ____ mm long after ____ days.
- 3rd Instar: ____ mm long after ____ days.

4th: The larvae (____ mm) develop into pupa after burrowing in surrounding soil.

5th: Adult flies emerge from pupa cases after ____–____ days.



What do they do?

- Forensic _____ apply their knowledge of entomology to provide information for criminal investigations.
- A forensic entomologist's job may include:
 - Identification of insects at various stages of their _____, such as eggs, larva, pupa, and adults.
 - Collection and preservation of insects as _____.
 - Determining an estimate for the postmortem interval or _____ (the time between death and the discovery of the body) using factors such as insect evidence, weather conditions, location and condition of the body, etc.
 - _____ in court to explain insect-related evidence found at a crime scene.

Video Reflection

I Notice	I Wonder

Stages of Decomposition

Summary: What happens during each stage of decomposition?

Insects as Evidence

Forensic entomologists use their knowledge of insects and their life cycles and _____ to give them clues about a crime.

Most insects used in investigations are in two major orders: _____ (flies) and _____ (beetles).

Species _____ may also provide clues for investigators. Some species may feed on a _____ corpse, while another species may prefer to feed on one that has been dead for two weeks. Investigators will also find other insect species that _____ on the insects feeding on the corpse.

Other Factors

_____ data is also an important tool in analyzing insect evidence from a corpse. Investigators will make note of the temperature of the _____, ground surface, the interface area between the body and the ground, and the _____ under the body as well as the temperature inside any _____ masses. They will also collect weather data related to daily _____ (highs/lows) and _____ for the period of time before the body was discovered to the time the insect evidence was collected.

What are some other factors that could affect a forensic entomologist's estimate of PMI? _____

