# FORENSIC ENTOMOLOGY UNIT REVIEW

Name \_



## <u>Across</u>

- 2. Third stage of a fly's life cycle
- 5. Third stage of decomposition; will have large maggot masses and noticeable odor
- 7. Type of animal that is often used to simulate a human body in forensic entomological experiments
- 8. The shedding of an exoskeleton that occurs as a larva or adult insect grows
- 9. Term that refers to the larval stage of a fly
- 12. Data related to the temperature and precipitation in an area where a crime scene is located
- 14. Order that includes beetles
- 15. Order that includes flies
- 17. Study of insects

## <u>Down</u>

- 1. Female flies will lay their eggs near body openings or
- 2. The time between the death and the discovery of a body; called the postmortem interval
- 3. Last stage of a fly's life cycle
- 4. Second stage of a fly's life cycle
- 6. Last stage of decomposition in which most of the flesh is gone
- 10. Stage of decomposition that begins at the moment of death
- 11. Second stage of decomposition in which the body becomes inflated due to the production of gases from bacteria
- 13. Type of metamorphosis that has four stages
- 16. First stage of a fly's life cycle

18. Label the life cycle diagram using the word list provided.



19. Use the charts on the Crime Solving Insects reference card to determine the age of the maggots listed in the chart.

| Species            | Size<br>(mm) | Average<br>Temperature | Age<br>(Days) |
|--------------------|--------------|------------------------|---------------|
| Blow fly maggot    | 30           | 85°                    |               |
| Skipper fly maggot | 6            | 79°                    |               |
| House fly maggot   | 33           | 72°                    |               |
| Flesh fly maggot   | 12           | 64 °                   |               |

20. Explain how a forensic entomologist would use fly larva to estimate the PMI.

FORENSIC ENTOMOLOGY UNIT REVIEW ANSWER KEY



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**19.** Use the charts on the Crime Solving Insects reference card to determine the age of the maggots listed in the chart.

| Species            | Size<br>(mm) | Average<br>Temperature | Age<br>(Days) |
|--------------------|--------------|------------------------|---------------|
| Blow fly maggot    | 30           | 85°                    | 6-7           |
| Skipper fly maggot | 6            | 79°                    | 11            |
| House fly maggot   | 33           | 72 °                   | 11            |
| Flesh fly maggot   | 12           | 64 °                   | 4             |

20. Explain how a forensic entomologist would use fly larva to estimate the PMI.

Answers will vary.

- 1<sup>st</sup> Collect maggots from the body along with other insect evidence.
- $2^{nd}$  Identify the species of each insect species present.
- 3<sup>rd</sup> Determine the length of the maggots and use weather data to estimate the ages
- 4<sup>th</sup> Use the insect evidence along with other factors (stage of decomposition, condition of body, body temperature, etc.) to estimate the length of time that had passed since death