

Title: CSI Orlando: A-Who-Done-It Mystery Told by Insect Larvae

Leaders:

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Entomological Concept:

Forensic entomologists regularly aid criminal investigations by examining dead bodies. By knowing the species identity of the insect larvae present and developmental stage, it is possible to give a reliable estimate of the time of death for the individual. This is regularly used as evidence in court for including someone as a suspect or excluding others who could not have possibly been present when a crime was committed, and has important real-world implications.

Youth Activity:

The kids are briefed on the history of the “case” by the “criminal investigators” (entomology leaders) and given charge of a “crime scene.” The latter is composed of chalked outlines of bodies on pavement, cement, or poster paper, each with its own unique fauna of “larvae” and surrounded by caution tape attached to traffic cones around the body outlines. The larvae are cut-up pipe cleaners of different colors (for different species) and of different developmental stages (e.g. sizes). The youth are equipped with a pair of gloves and forceps (it’s important to be “sanitary”), as well as a ruler for measuring larvae. Youth will be split up into pairs, and each pair will be given a conversion table that translates the differently sized larvae into instars, and the different colors into species. The pairs will have to mark which species and stages are present and consult their chart to figure out the time of death for the individual. At the end of the activity when all the pairs have finished, they must report back to the criminal investigators for a debriefing and report their findings.

Supplies Needed (assuming a group of 20 kids at a time):

- 10 lightweight forceps
- 10 small flexible rulers in metric
- 10 clipboards for the table/conversion chart
- 10 pens or pencils
- 1 bag of pipe cleaners
- 1 box of size small nitrile gloves (kids seem to enjoy purple the most)
- 1 package of multicolored chalk
- 1 roll of caution tape
- 5 small traffic cones