Curriculum Units by Fellows of the National Initiative 2016 Volume VI: Making Sense of Evolution

Silent Witnesses: Hexapod Helpers in Crime Scene Investigation

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Prime time television shows glamorize crime scene investigation, hence increasing the popularity of high school forensic science course offerings. Forensic science offers exciting opportunities to practice applied sciences in ways that contribute to meaningful learning. Moreover, the emphasis on the study of insects within this curricular unit enhances the forensic science curriculum by filling in gaps in the learning and teaching of evolution. Insects provide evidence regarding time of death, and they even sometimes are victims of poaching. Whether students calculate the life cycle of a blowfly or compare the natural variation of other insect species, the role of insects in forensic science depends entirely on their speciosity – the richness and broadness of their species – which is attributed to the mechanisms of evolution that have driven their adaptations. Insects work dutifully as silent witnesses, and forensic entomologists must provide a voice for them in the court of law. Knowledge of insect species – originating from understanding concepts in evolution – is thus essential to these specialists and for our students. This lesson was designed for a high school forensic science course, however it is suitable for most high school biology courses. Its concepts can also be adapted for younger students.

(Developed for Forensic Science and Advanced Science Research, grades 10-12; recommended for Biology, grades 9-12)

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