Our overall objective is to promote authentic science, ambitious teaching, and an orientation to science pursuits among elementary students participating in a university-school-community promise program through inquiry focused on mosquitoes and human health.

Goal #1
Historically-excluded youth will develop authentic science knowledge, skills, and dispositions, as well as identification with science, and motivation for continued science study.

Goal #2
Informal and formal science educators will demonstrate competence in authentic and ambitious science teaching and model an affirming orientation toward cultural diversity in science.

Goal #3
Community residents will display more accurate understandings and transformed practices with respect to mosquitoes in the urban ecosystem in service of enhanced health and well-being.

Lesson Activities
1. Initial Model Building
   - Students will listen to a recording of crickets chirping and then generate initial explanations/models to answer the questions: How do crickets make that noise? Do other crickets hear the noise, and if so, how?

2. How Crickets Chirp (part 1): Observing Cricket Body Parts
   - Students will refer to their initial ideas of how crickets make a chirping sound (from lesson 1) and suggest what physical structures they might be able to observe if each idea is true. Then, they will observe insects under a dissecting scope and suggest body parts that might be used to make a chirping sound. They will use the evidence gathered today to revise their models of how crickets chirp.

Developed: an innovative phenomenon-based Mosquitoes and Me curriculum

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Young Scientists and Ambitious Teachers Improving Health in an Urban Ecosystem