PBL

“Insects: How do they transform?”

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Semester Two 2015/2016
Insects: How do they transform?

Learning outcome:

The students are able to:
   1. Identify the insects (C4)
   2. Present the life cycle of the insects (P4)
   3. Explain the process of metamorphosis (A2).

Suggested duration of contact hours: 3 hours visit (6 March 2016); 3 hours PBL (20 March 2016)

Scenario (Problem exist):
Most insects undergo noticeable changes in form as they mature, a process known as metamorphosis. Nearly all insect display either hemimetabolous (incomplete) metamorphosis or holometabolous (complete) metamorphosis, although a few change so little, except in size, that they are said to have ametabolous metamorphosis, meaning that there is practically no change in form.

Ladang 16 UPM has been maintained by the Department of Plant Protection, Faculty of Agriculture, Universiti Putra Malaysia to showcase agriculture activities to students. Different types of plants are cultivated and no chemical is allowed to be applied in this farm. Recently, this farm is alarmed to have plants with symptoms damaged by insects. Action should be taken to prevent an increasing insect population from reaching the economic injury level.

This case initially requires the students to present a report on which includes:
   1. examples of insects
   2. biology of the insects
   3. suggestion of pest control management for next growing season.

Instructions for student:

- Read the scenario given.
- Interview the staff regarding agronomy practices.
- Gather related information from various resources such as textbooks, articles, internet etc.
- Present your report in a form of video presentation.
- You will be assessed through:
  o Peer-assessment (10 marks)
  o Instructor/lecturer (10 marks)
- Assessment will be based on the presentation and contents.
- Presentation time given is 5 minutes.
- The final mark will be the average of both assessments.