

Object Oriented Programming Concepts

Lesson Focus

Lesson focuses on the basic concepts of Object Oriented Programming. Students work in teams to design a model of their school. The model is divided into the categories of person, place and item represented by classes and subclasses.

Lesson Synopsis

The Object Oriented Programming Concepts lesson not only explores Data Abstraction, Data Encapsulation, Polymorphism and Inheritance, but also makes students understand how the real world is an example of a programming problem. Students work in teams of "professionals" to design a model of their school and learn how the elements of this model can be considered as classes and subclasses. They then discuss the model to explore the concepts of Object Oriented Programming and attempt to model other real world objects in a similar way.

Age Levels

8-18.

Objectives

- ✦ Learn about the concepts of Object Oriented Programming.
 - ✦ Learn about making virtual hierarchy models of everyday things.
 - ✦ Learn about classes and subclasses, and their association.
 - ✦ Learn about planning and working as a team.
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Anticipated Learner Outcomes

As a result of this activity, students should develop an understanding of:

- ✦ programming basics
- ✦ planning and organizing
- ✦ teamwork