

Field Trip # 12

Developed by:

Subject:

Short description:

Educational Level:

Field trip type:

Educational

Outcomes:

Content:

Notes to instructor:

Advanced Object Oriented Programming with ALICE

Dr. Debra Chapman

Object Oriented Programming

Students will learn about advanced Object Oriented programming concepts, including method scope & interactivity through events using the ALICE programming software. (Students should have completed the Beginning OOP with ALICE learning object)

6th – 8th Grade

Workshop

The Student will be able to:

- Create an interactive object oriented Alice environment using events
- Differentiate between local & global scope (methods & events)
- Use camera cuts
- Add 3-D text for additional effects

It is recommended that the instructor have at least one assistant in the lab to assist learners with the programming. This learning object can easily be fit into a 50 minute time frame or expanded as time allows. The instructor can cover as much material as time permits & allow students to create their own ALICE projects. This activity should be done in a computer lab or a classroom with laptop computers. The instructor should have a computer connected to an overhead projector for demonstration. A started file (similar to what is created in the Beginning OOP with ALICE learning object) containing objects, methods & events is needed to save time.

A PowerPoint instructional slide show can be provided.

LESSON PLAN for
Advanced ALICE
Session

Part 1 (10 minutes: 10)

Review ALICE environment

Open provided ALICE started file (containing objects, methods & events)

Part 2 (10 minutes: 20)

Discuss Method Scope – Local & Global

Create Local Methods

Create Global (World) Methods

Part 3 (10 minutes: 30)

Add User Events - Create interactivity between user & program

Part 4 (10 minutes: 40)

Discuss use of multiple views / Cameras

Set up camera views – use camera views within storylines

Part 5 (5 minutes: 45)

Discuss 3-D text for additional effects

Modify properties & methods of text

Part 6 (10 minutes: 55)

Explore with Alice

Modify their Alice Activity on their own