## Field Trip #8

Developed by: Subject: Short description:

Educational Level: Field trip type: Educational Outcomes:

## Object Oriented Programming using "Scratch the Cat"

Dr. Debra Chapman, Senior Instructor

Students will use a computer assisted learning tool to write programs to describe simple geometric shapes. Learners will write algorithms that use a graphical user interface, using visual representations, mathematical functions & conditional statements to program the actions of Scratch the Cat.

3<sup>rd</sup> – 5<sup>th</sup> Grade Workshop The Student Will Be Able To

- Explain the purpose of an algorithm
- Write an algorithm to create several simple shapes, including triangles & squares.
- Explain how angles affect shapes.
- Explain a conditional statement

Content: Notes to instructor:

Scratch the Cat is designed to build incrementally from simple to more complex. It is recommended that the instructor have at least one assistant in the lab to assist learners who fall behind. This learning object can easily be trimmed down to fit into a 50 minute time frame. The instructor can cover as much material as time permits. 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. Scratch the Cat is free, so the instructors can provide it to the students/parents for home use.