Intermediate Programming

Lesson Plan #4

Arts Infusion

**Introduction to Lesson Plan #3**

**Greenfoot - ElephantWorld**

**BCS-IP-8. Students will demonstrate knowledge of advanced object-oriented concepts.**

Teacher: Mrs. Wylene Dickey Room #2503

Course Title: Intermediate Programming Central High School

Program Concentration: Business & Computer Science

Career Pathway: Computing

The student will use Greenfoot, but this time will create an ElephantWorld. Within the ElephantWorld, there will be several actors. Within the actor classes, there will be an elephant, a mouse (since elephants are supposedly afraid of mice), and there will also be images of cheese and peanuts that will be copied and pasted to the hard drive for use in this assignment.

While the elephant and mouse will fall under the animal actor world, the cheese and peanuts will fall under food. A man will be added to the ElephantWorld, also, as an actor. The student will place one elephant in the world, one mouse, and a man. There will be numerous peanuts placed within the world, and several pieces of cheese.

The cheese, peanuts, and man will do whatever they want to do. However, if the elephant moves forward and sees the peanuts, then the elephant can eat the peanuts. But, if the elephant moves forward and runs into the mouse, then the elephant must turn left and try to find food (peanuts) in another place. The same will hold true for the mouse. The cheese will do whatever it wants to do, but if the mouse sees the cheese, it will eat it. However, if the mouse runs into a man, then the mouse will turn back and try to find food (cheese) in another place. If the actors bump into the wall or into a man or mouse (whatever is applicable), then they will continue to turn until they have completely consumed all of the food. They will move north, south, east and west.

The program will run and continue until all of the food has been eaten. The ultimate goal will be for all of the food to be eaten, then the man will try to consume the mouse, then the elephant will consume the man.