

Lesson Plan 3 Outline

Objectives:

- Students learn about event handling.
 - When the world starts/While the world is running
 - Use of the arrow keys (built-in and then individually coded)
 - When a key is pressed / While a key is pressed
- Students will practice making their own methods.

Talking points:

1. Create a new world with the water template.
2. Add from the Shapes Gallery, several torus objects and a cylinder, to create an obstacle course. Make them various colors.
3. Add a *pinkMinnow* from the Ocean Gallery. (Students, particularly the males, prefer to change the color.)
4. Discuss *when the world starts* and *while the world is running*. Have the *pinkMinnow* swimming throughout the animation. (Since the swim method runs forever, either will work.)
5. Set the arrow keys to control
 - a. the camera
 - b. the *pinkMinnow*
6. Set the *camera's* vehicle to be the *pinkMinnow*. (Not quite what we want. Turn the *pinkMinnow* around so it's facing away and get closer to it.)
7. Use individual arrow keys in order to better control the speed of the movement.
8. Write a *jump* method for the *pinkMinnow*. (move up ½ meter and then back down)
9. When the space bar is typed, have the *pinkMinnow* jump.
10. Add movement of the obstacles (often involves the use of the *asSeenBy* parameter).
11. If time permits, students can add more obstacles and/or methods.