Review: Camera Markers

1. When do you set up camera markers?
   - LAST, after everything else in your scene is setup
   - Camera markers can freeze your scene!
2. I want to create three camera markers: initialView, topView, rightSideOfPigView. Which one do I create first?
   - initialView
   - Setup a camera marker BEFORE moving the camera so you can get back to the initial view.

Classes and Objects

1. Which one is the object?
   - object
   - class
   - An object is an instance of a class
   - The class defines the object
   - Then you can make lots of objects with the class
Classes and Objects

- Which one is the object?
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Inheritance

- Which is a superclass of the other?
  - Quadruped or Bear?

- If you write a quadruped procedure, who can use it?
  - Any quadruped

- If you write a Bear procedure, who can use it?
  - Only bears

Built-in Functions

- Where can you use the cow getHeight function in this instruction?

  ![Function Use Example]
Built-in Functions

• Where can you use the cow getHeight function in this instruction?
  – Over the 1.0 or the 2.0
  – getHeight’s value is of type decimal, so you can use it anywhere there is a decimal number

• Functions calculate a value of a certain type
  – Use the value wherever that type is in an instruction

getDistanceTo

• What happens when this executes?

  • Moves to center of cow

Lots of built-in functions to use
Use math to adjust

• How do we stop poodle before the cow?

– Use math
– How does one add the math?
  • On down arrow beside number

How do I get the flamingo to circle around the ostrich?

• Use turn with as seen by

• Which direction do you pick to go forward?
  – The ostrich is to the flamingo’s left, so turn left
Properties

- What can you do with the paint property?
- What does painting an object with white paint do?
- What can you do with opacity property?
- What can you do with the vehicle property?

More on properties

- Where does one make a property permanently changed?
- What instructions do you get to use with properties?

Properties

- What can you do with the paint property?
  - Paint an object that color
- What does painting an object with white paint do?
  - Means no color, the original colors show through
- What can you do with opacity property?
  - Make something see through or invisible
- What can you do with the vehicle property?
  - Make an object move when another object moves

More on properties

- Where does one make a property permanently changed?
  - In setup scene
- What instructions do you get to use with properties?
  - A set procedure
  - A get built-in function
Vehicle Property

- Consider

  ![Image](this.bluebird setVehicle this.flamingo)

- What happens if the bluebird moves forward?

- What happens if the flamingo moves forward?

How does one create their own camera marker (not use the ones provided in Alice)?

- Use any object.
- Change its name to cameraViewSOMETHING
- Have it moveAndOrientTo camera
- Make it invisible
What is the best object to use to make your own Camera marker

• Use a small quadruped
• It’s small and you will see its legs so you know it is on the camera.

Create Poodle as Camera Marker

• Rename the object to the camera view it will be

Poodle moveAndOrientTo camera

Then make the poodle invisible
Announcements

• Assignment 3 out today. Due Oct. 1.

• Note: Exam 1 is Thursday, Oct. 10.
  – Old exams are on the course website under resources tab

Class Today

• Using properties, built-in functions and math
• Creating class procedures