Classes and Objects

• 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

Inheritance

• Which is a superclass of the other?
  – Quadruped or Bear?

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

• If you write a Bear procedure, who can use it?
Inheritance

• Which is a superclass of the other?
  – Quadruped or Bear?
  – Quadruped is a superclass
  – Bear, cow, etc are subclass of quadruped

• 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?
  – Over the 1.0 or the 2.0
  – Anywhere there is a decimal number

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

getDistanceTo

• What happens when this executes?
  – Moves to center of cow
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 before the cow?

Use math to adjust

• How do we stop 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?
  – Paint an object that color

• What does 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 permanent?
  – In setup scene

• What instructions do you get to use with properties?
  – A set procedure
  – A get built-in function

Vehicle Property

• Consider

• What happens if the bluebird moves forward?
  – Nothing else happens

• What happens if the flamingo moves forward?
  – The blue bird moves forward with it
Announcements

• Assignment 3 due tonight.
• Assignment 4 out.
• Exam 1 is Feb. 19.

Class Today

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