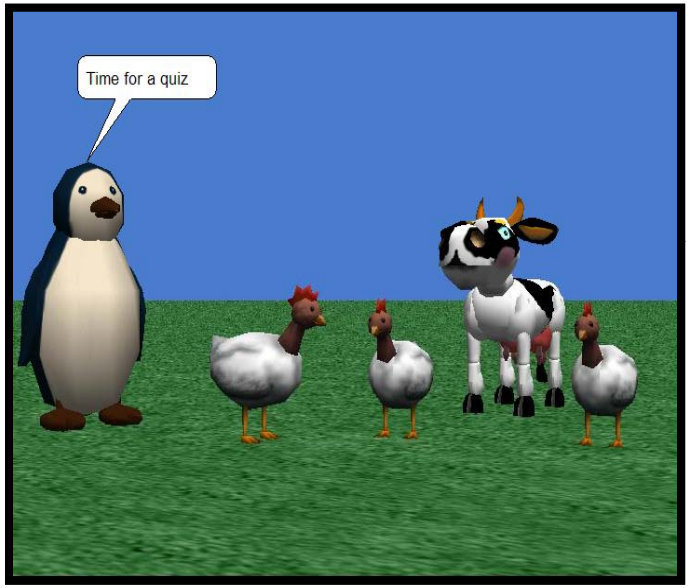
A Simple Quiz:

Ask User Functions.



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Introduction and Set-up

This tutorial will demonstrate how to create a simple quiz using the three different kinds of "ask user" functions: ask user for a number, ask user for yes or no and ask user for a string.

Let's get started by setting up the world.

Open a new Alice grass world.

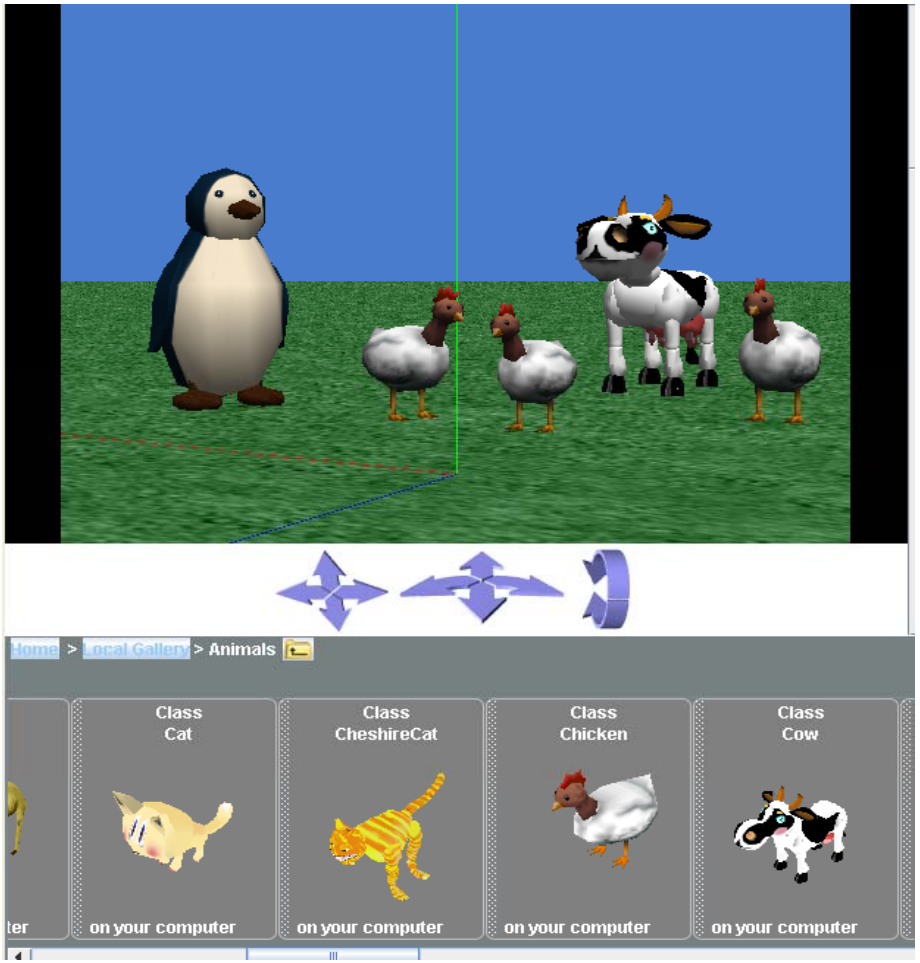
Click on Add Objects.

Choose Local Gallery, and click Animals.

Add one Penguin, one Cow, and three Chickens into your world.

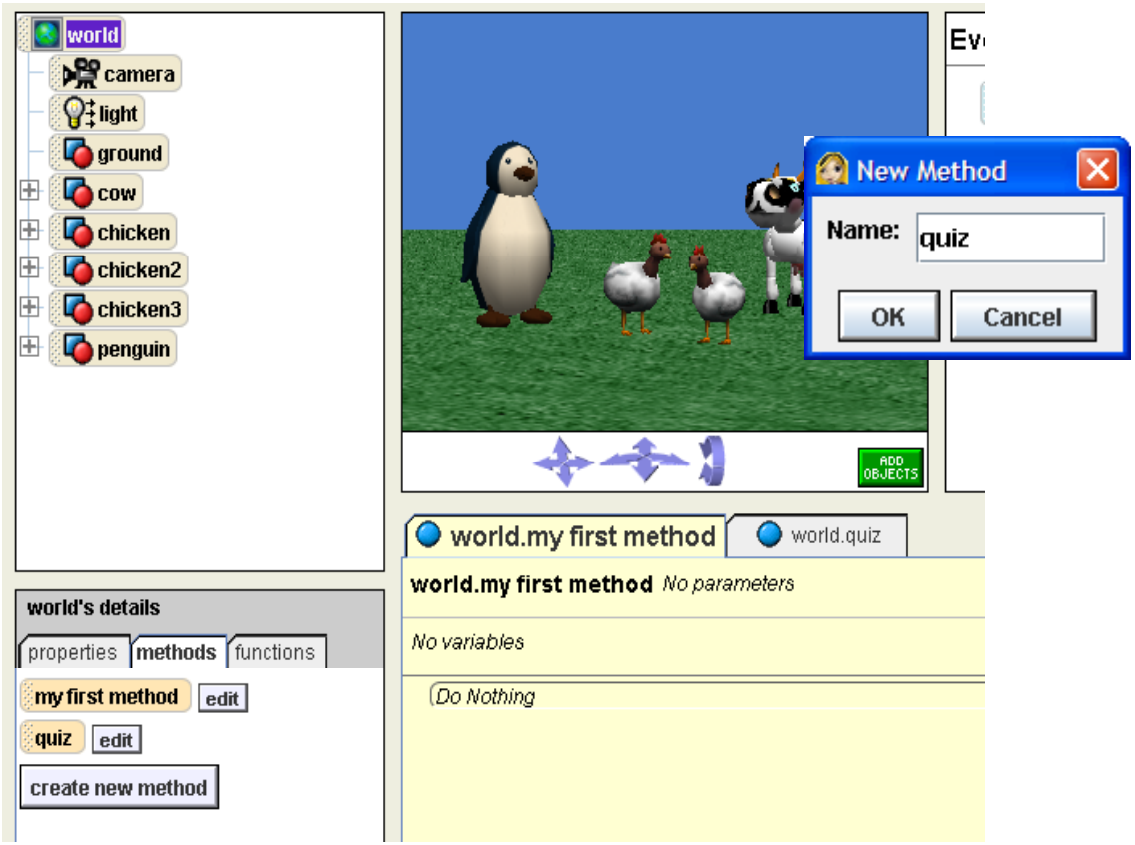
Arrange and resize the objects so they are easy to see.

Click done when finished.



Step 1: Create the Quiz Method

Create a new method that we will use later to hold the instructions for the quiz.



Lets start by creating a quiz method.

Click on world in the object tree and create a new method.

Name the new method: quiz.

Click back on my first method.

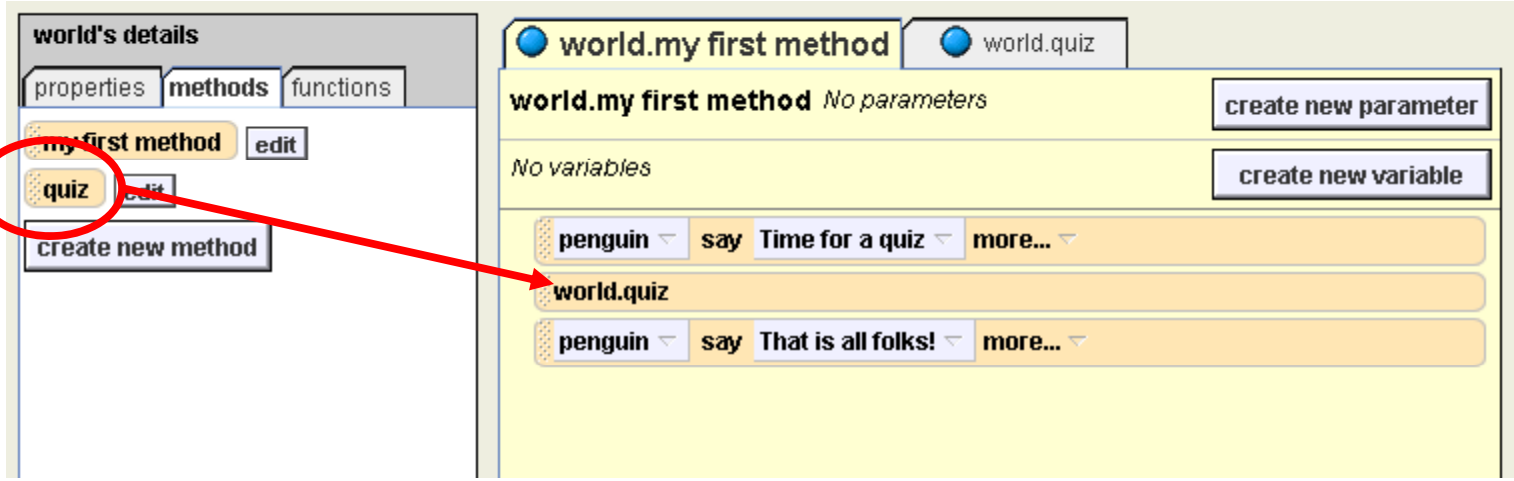
Step 2: Set Up My First Method

Now we will add the quiz to my first method.

Make sure you are in my first method.

Click on penguin in the object tree.
Drag the say method into the method editor and type in: *Time for a quiz*
Drag in a second say method and type in: *That is all folks!*

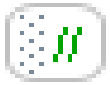
Click on world in the object tree and drag the quiz method in between the two penguin say commands

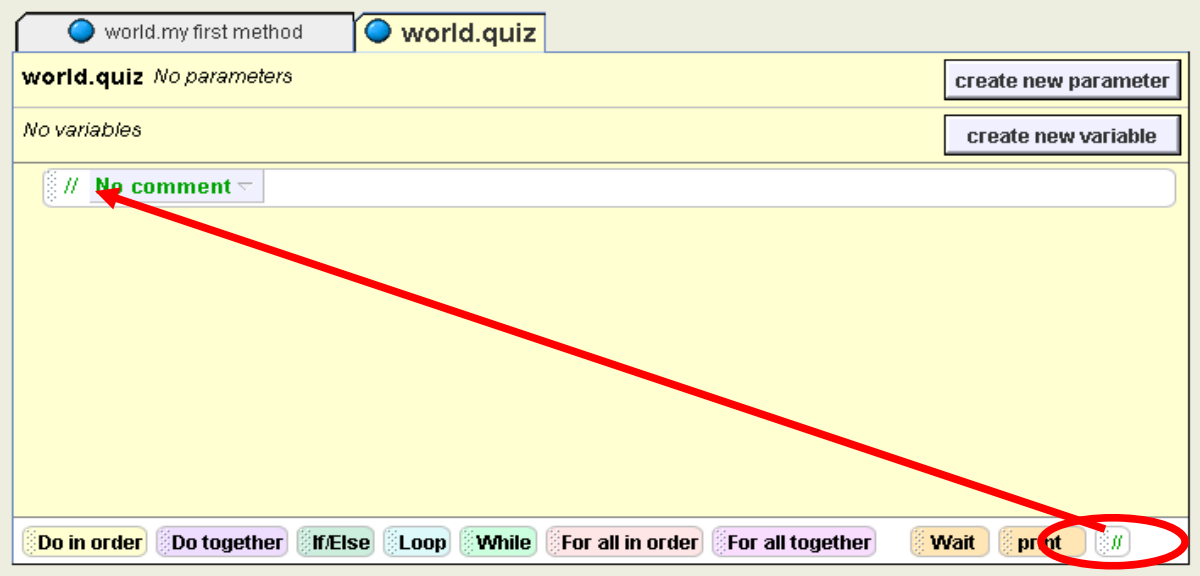


Step 3: Comments

Now we will start writing the quiz method. To make our code easier to read we will add in comments. Comments make it possible to add in notes about the code like, what it will do, or who wrote the code.

First click on the world.quiz method.

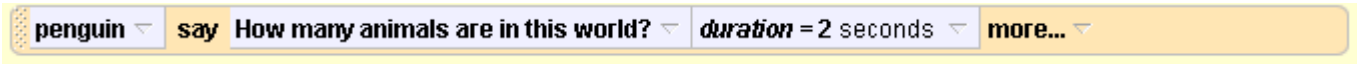
To add a comment drag and drop the double slash button  into the method



Step 4: Question #1

Click on "No comment" in the method editor and type in: *Question 1*

Click on penguin in the object tree, have it say: *How many animals in the world?* and set the duration to 2 seconds.

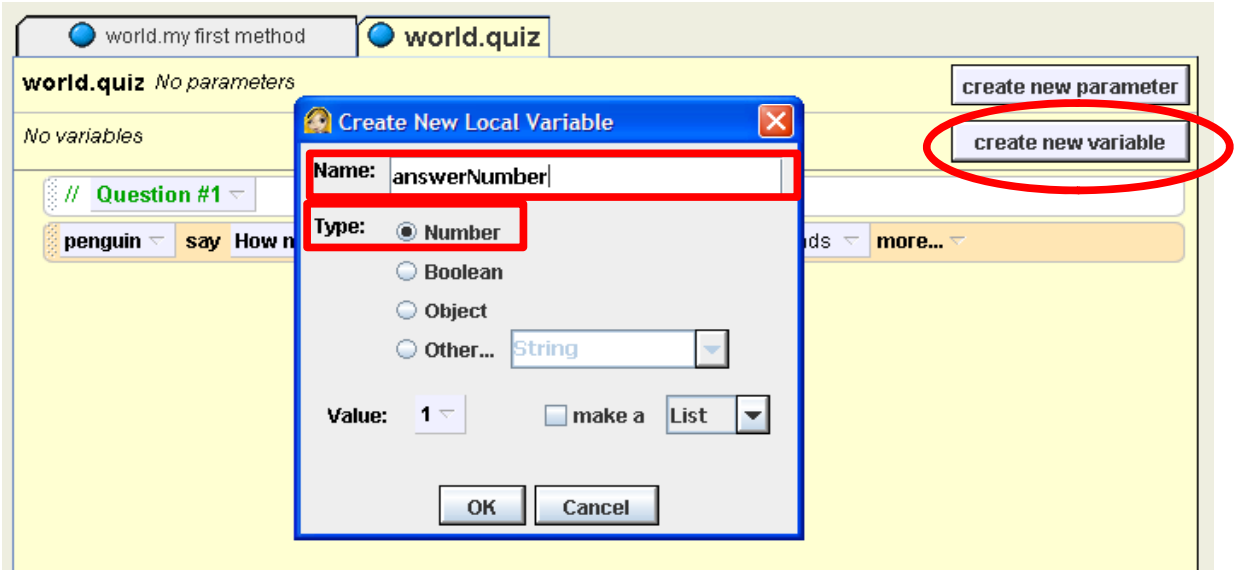


We need a variable to store the number information we get from the user.

Click on create new variable.

Name it *answerNumber*.

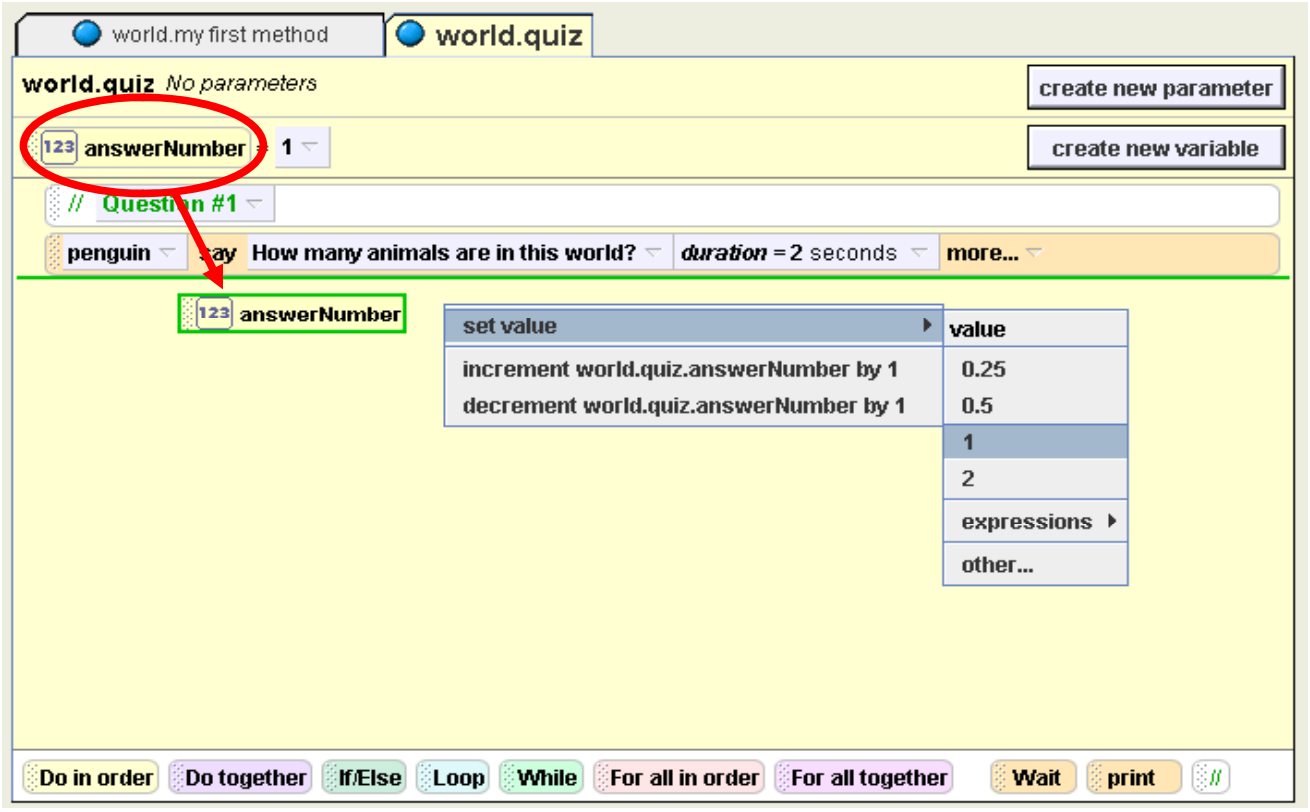
Select Number beside Type and click OK.



Step 4: Question #1 Continued...

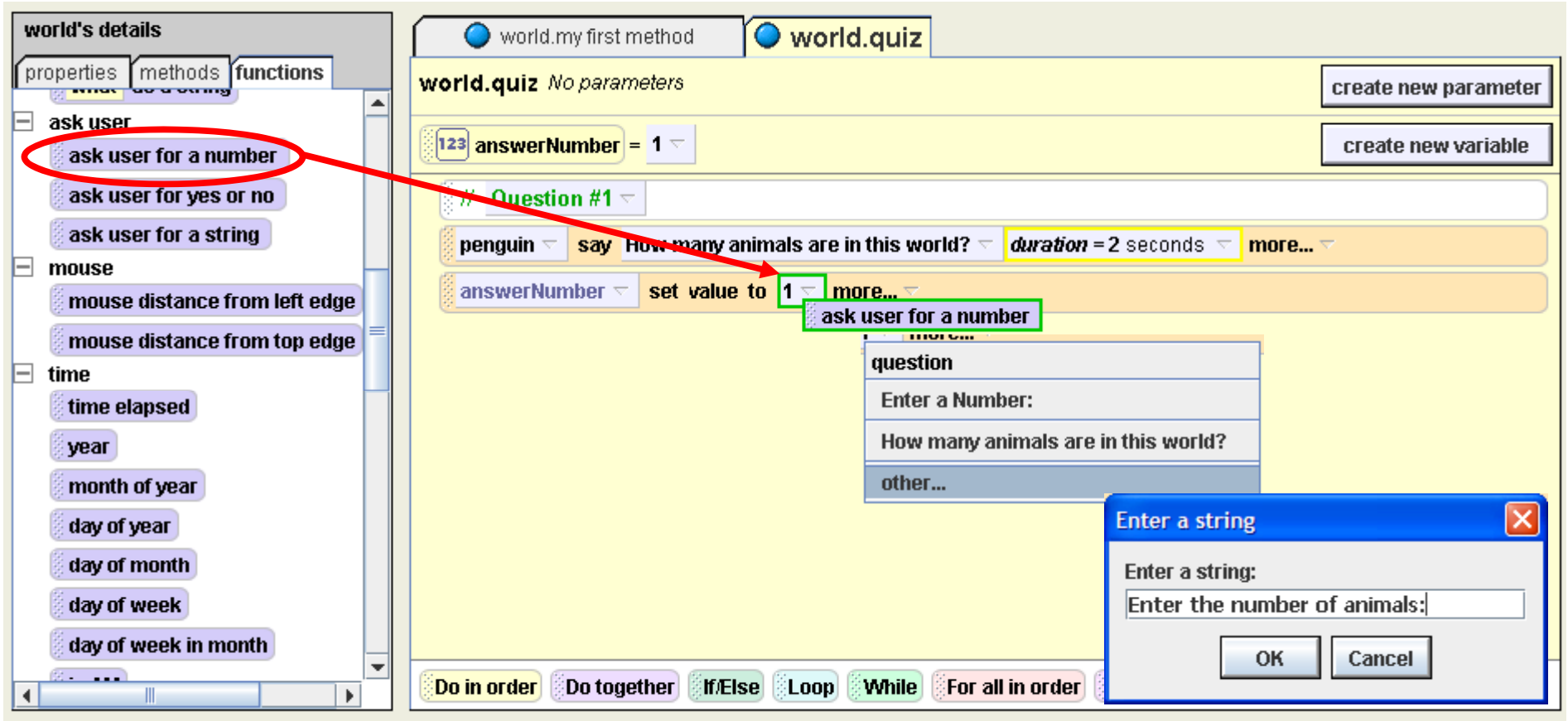
Next we will set the answerNumber value to the number the user will give.

Click and drag the variable answerNumber into the method and set the value to 1



Step 4: Question #1 Continued...

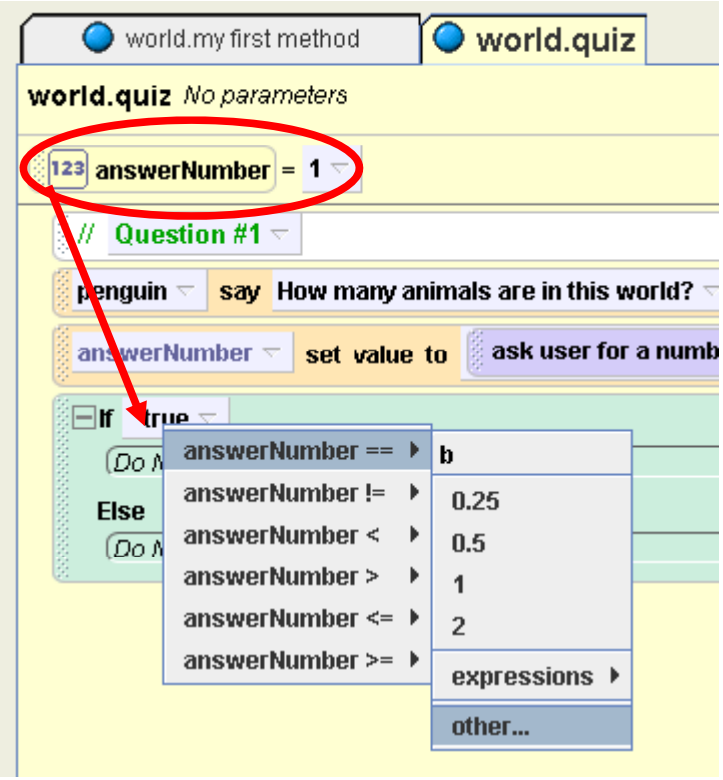
Click on the world in the object tree.
Under the world's details, functions find ask user for a number.
Click and drag the ask user for a number over the 1 and select other...
Enter the string: *Enter the number of animals:*



Step 4: Question #1 Continued...

Now we will determine what happens if the answer given is correct or incorrect.

Drag and drop an If/Else block from the bottom of the window and set it to true.



Drag and drop the answerNumber variable over the true.

Select answerNumber == and use other... to enter in the value *5*.
5 is the correct answer to this question.

Note: The following is an explanation of all the comparison options

a == b	a is equal to b
a != b	a does not equal b
a < b	a is less than b
a > b	a is greater than b
a <= b	a is less than or equal to b
a >= b	a is greater than or equal to b

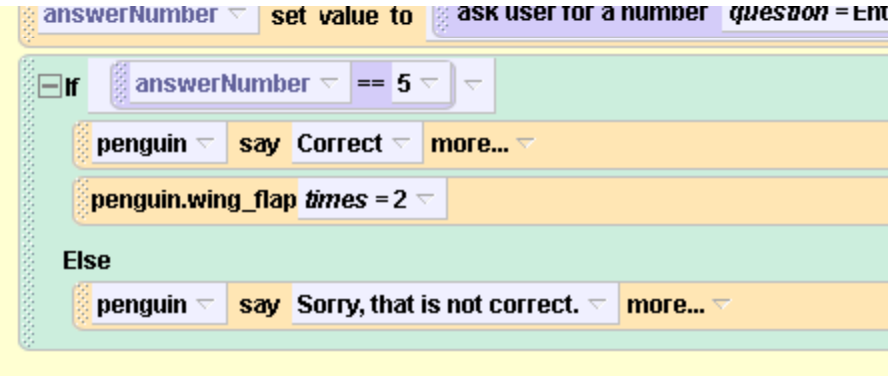
Step 4: Question #1 Continued...

For this question when the “If” statement is true, the answer is correct. So we will put our response to the correct answer first.

Click on penguin in the object tree.
Under the If:
Drag the say method and type: *Correct*
Drag the wing_flap method and select 2

When the if statement is false, the answer is incorrect.

Under the Else:
Drag the say method and type: *Sorry, that is not correct.*

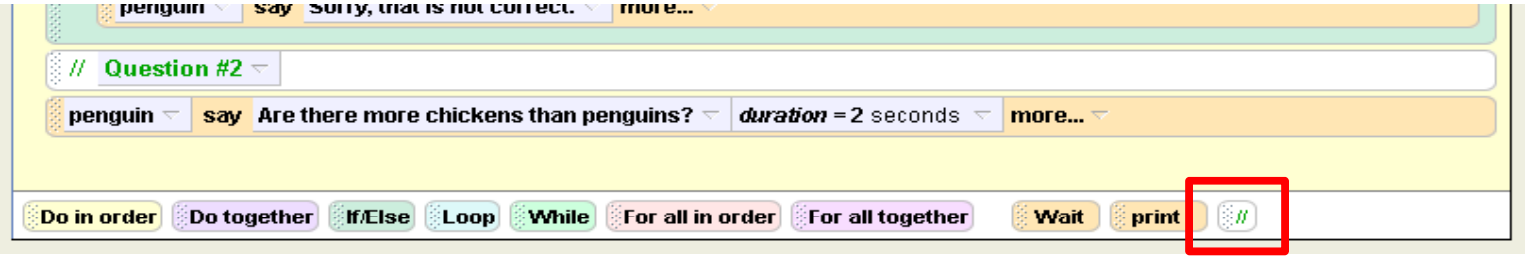


Play your world to take the one question quiz.

Step 5: Question #2

Now lets make a question that asks the user for a yes or no response.

Drop in a comment and type in: *Question 2*
Click on penguin in the object tree, have it say: *Are there more chickens than penguins?* and set the duration to 2 seconds.



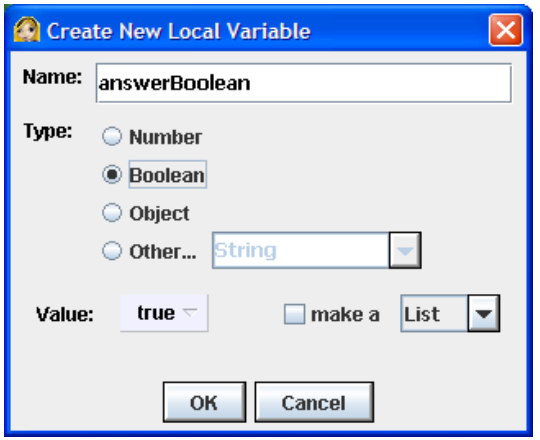
We need a variable to store the boolean information we get from the user.

Click on create new variable.

Name it *answerBoolean*.

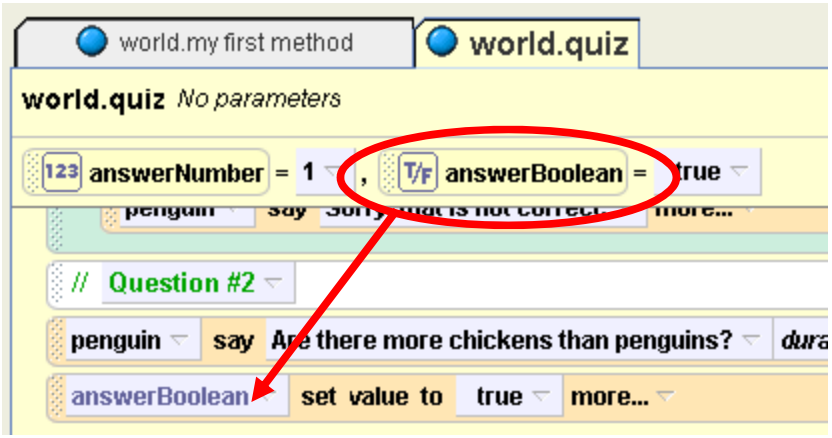
Select Boolean

Click OK.

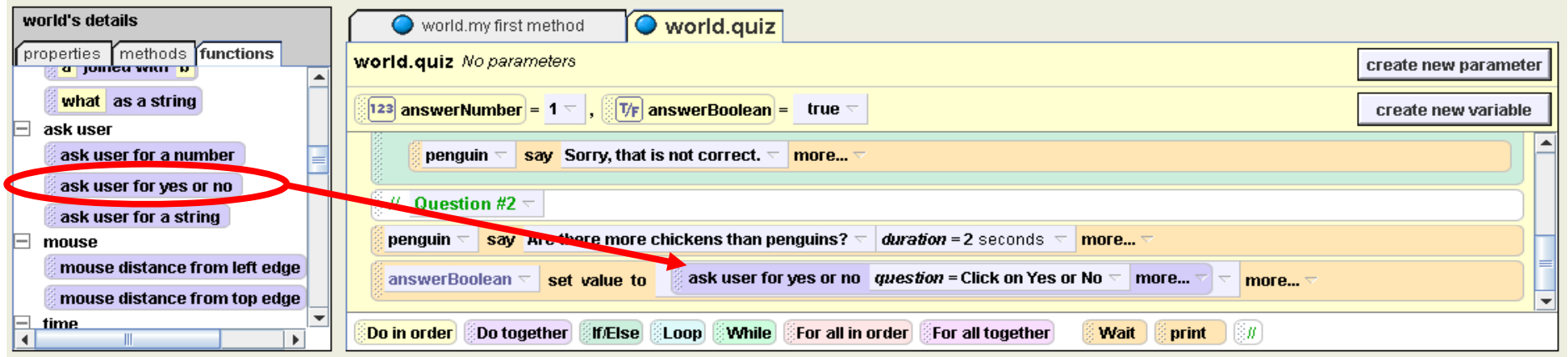


Step 5: Question #2 Continued...

Drag and drop the variable answerBoolean into the method and set the value to true.



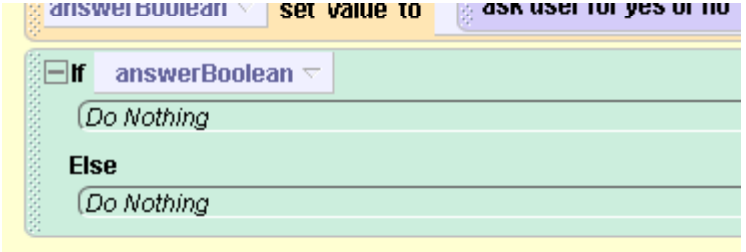
In the world's functions,
drag and drop the ask user for yes or no over the true.
Type in: *Click on Yes or No*.



Step 5: Question #2 Continued...

Now we will add in our responses to the answer in another If/Else statement.

Drag and drop an If/Else statement and select true.



Drag and drop the variable answerBoolean over the true.

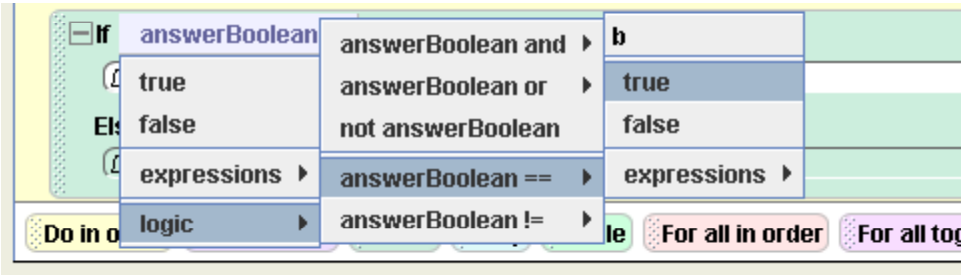
The If question accepts just the variable because answerBoolean is a boolean type. To make the question explicit we will use the boolean logic functions.

Click on answerBoolean in the If block

Select logic

answerBoolean ==

true



Step 5: Question #2 Continued...

Now complete the question #2 by adding in the methods as shown below:

Play your world to take the two question quiz.

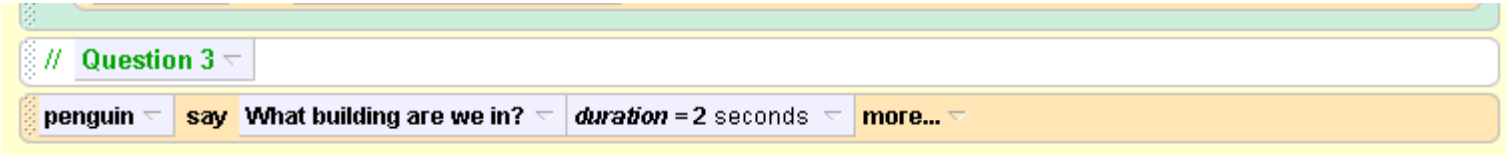
Step 6: Question #3

For our final question we will ask the user to enter a string.

Drop in a comment and type in: *Question 3*

Click on penguin in the object tree, have it say: *What building are we in?* and set the duration to 2 seconds.

Note: A string is a set of letters or characters. A space is considered a character so be careful if you have a space at the end of your word or sentence.



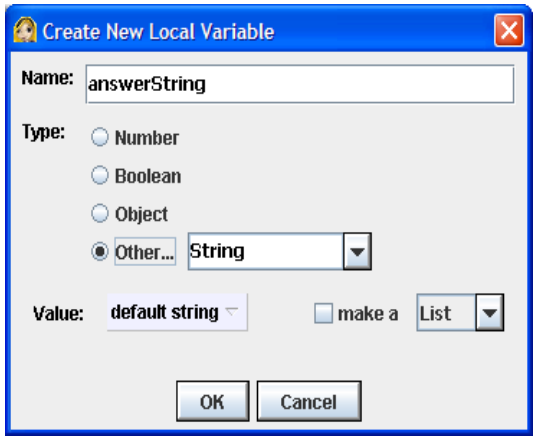
We need a variable to store the string information we get from the user.

Click on create new variable.

Name it *answerString*.

Select Other... and String

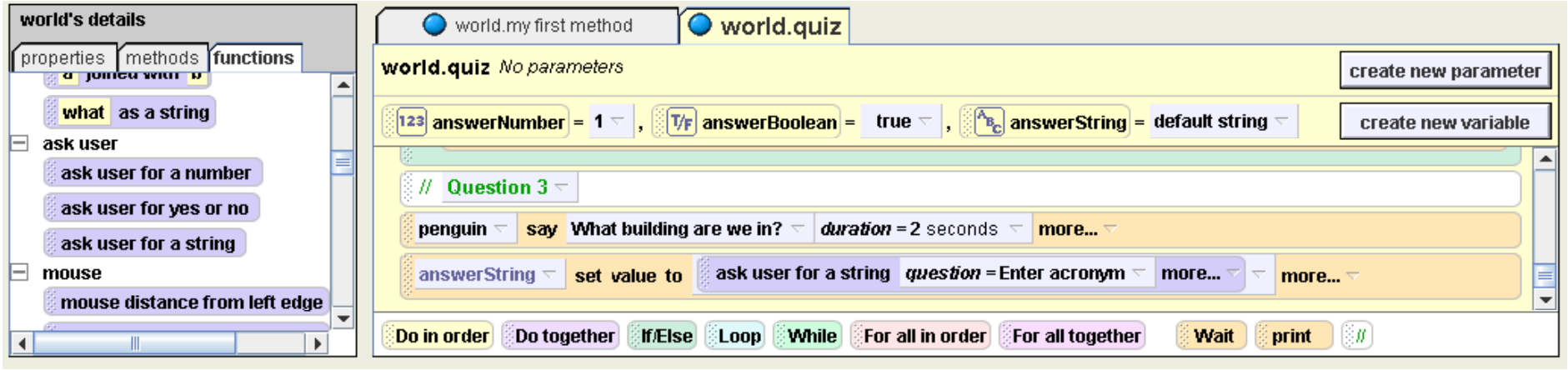
Click OK.



Step 6: Question #3 Continued...

Drag and drop the variable answerString into the method and set the value to default string.

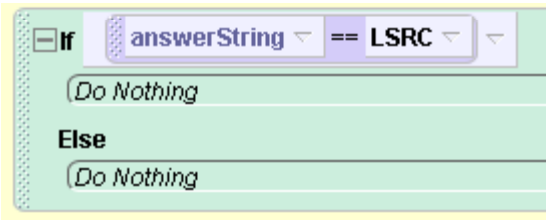
In the world's functions,
drag and drop the ask user for a string over the default string.
Type in: *Enter acronym*.



Step 6: Question #3 Continued...

Now we will add in our responses to the answer in another If/Else statement.

Drag and drop an If/Else statement and select true.

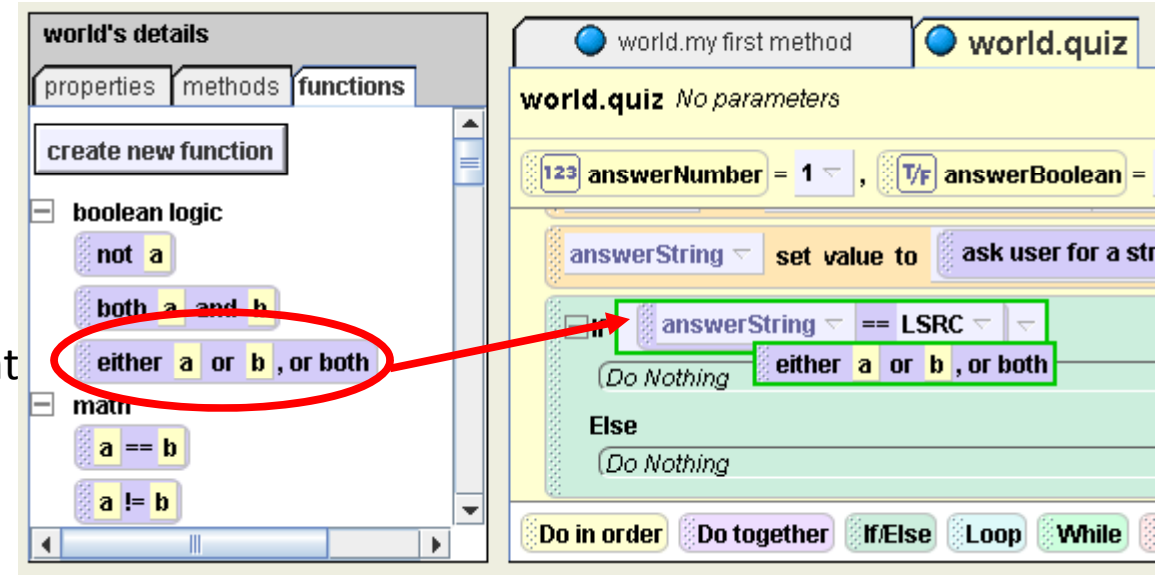


Drag and drop the variable answerString over the true.
Select answerString== then use other... to type in: *LSRC*

But wait, what if the user enters in "lsrc"? Alice is case sensitive so we need to allow for the user to enter LSRC or lsrc as the correct answer.

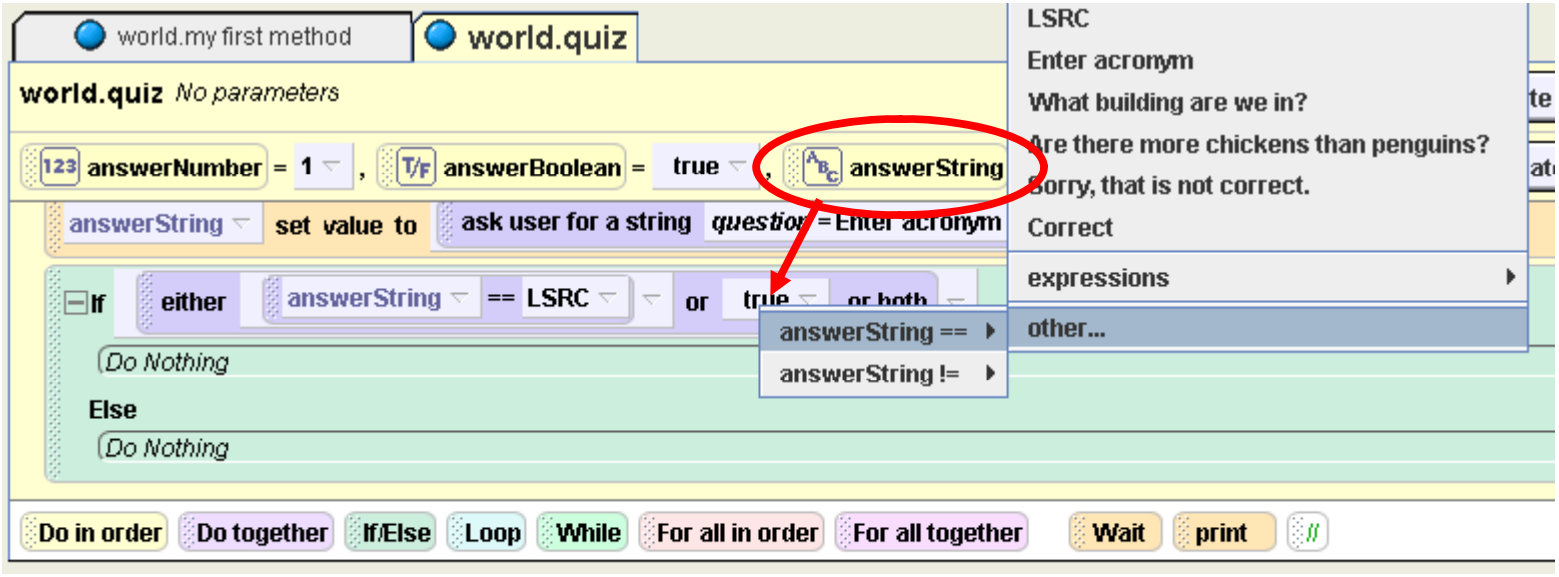
Click on world in the object tree and find the boolean logic functions

Drag and drop either a or b, or both onto the If statement and select true

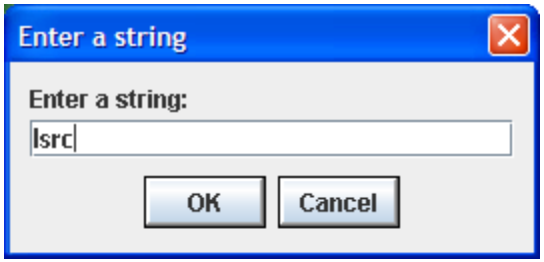


Step 6: Question #3 Continued...

Now drag the variable answerString onto the true
Choose answerString== and other...



Type in: lsrc



Step 6: Question #3 Continued...

Click on penguin in the object tree and add in the responses for when the answer is correct or incorrect as shown below.