Game Making with Alice
Eat the Hay Game

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What is Alice?

- Alice is a visual programming language.
- Alice is designed to teach you how to program
- The output of Alice programs are movies.
- The movies can be interactive

Alice and Visual Programming

- Programming is done by pointing and clicking, dragging and dropping, selecting from menus, and some typing

- Download Alice for free:

- www.alice.org

Alternate Game – Eat The Hay

- Create a Game with a cow.

- The arrow keys on the keyboard control the cow.

- There are 3 bales of hay on the ground.

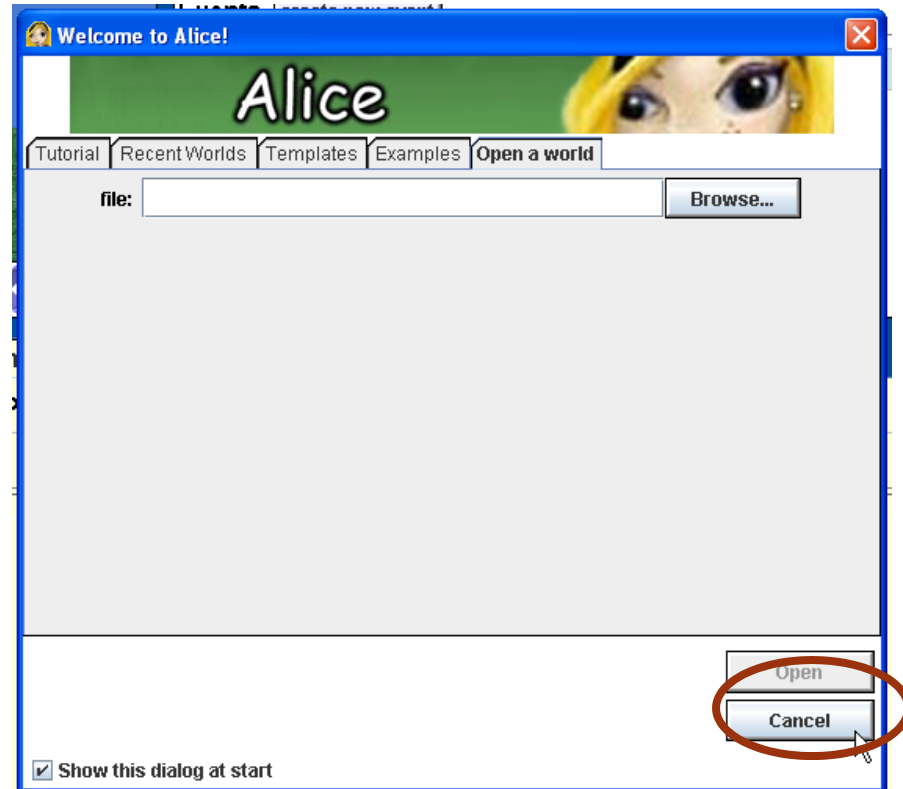- When the cow gets close to the bales they disappear.

Games In Alice

Start Alice

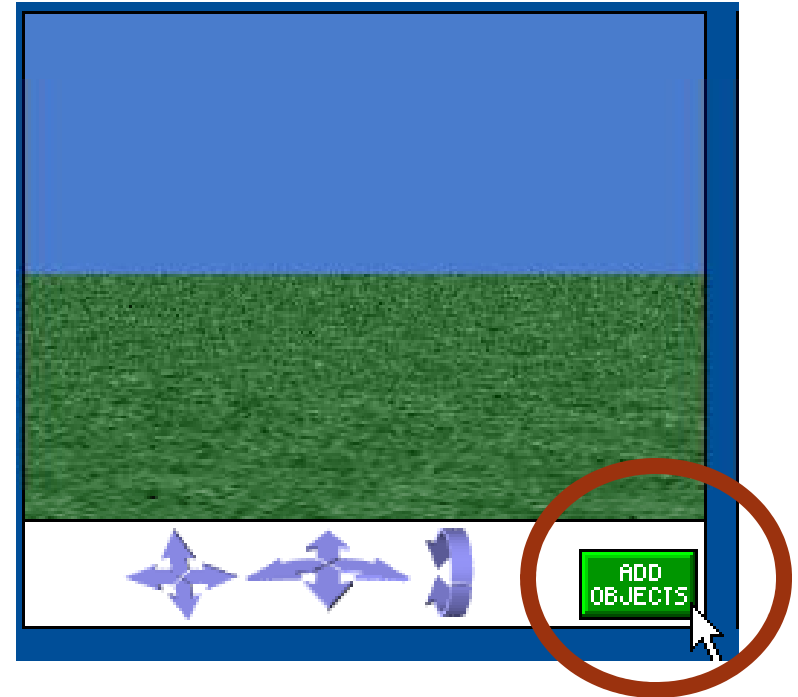- Double click on the Alice icon to start Alice

  - It may take a minute to start up

- Cancel the opening dialog screen

# Build the Scene

- Click on the add objects button at the bottom right of the scene

- Scroll to the Farm category and clock on Farm

Add Hay to World

- Click and drag 3 bales of hay into the scene

- Once in the scene objects can be positioned with the mouse

- Object can be rotated by selecting the proper option from the menu in the upper right

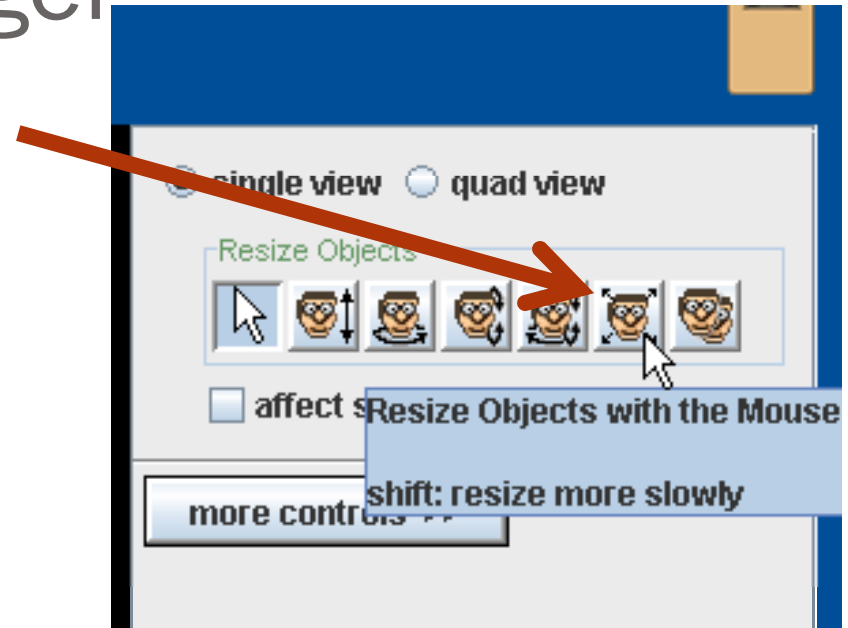- If you want to get rid of an object right click it and select delete
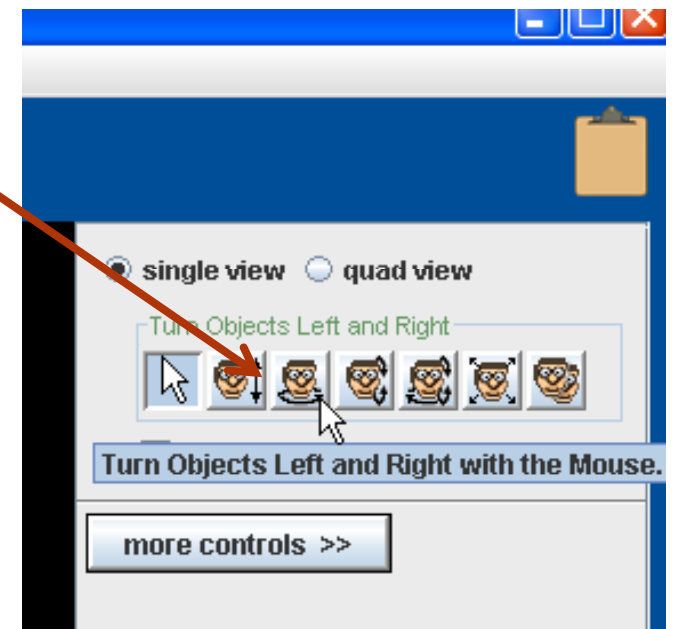
Add The Cow

- Click on the Local Gallery to get back to the list of categories
- Open the Animals Category
- Scroll over to the Cow and add one to the world
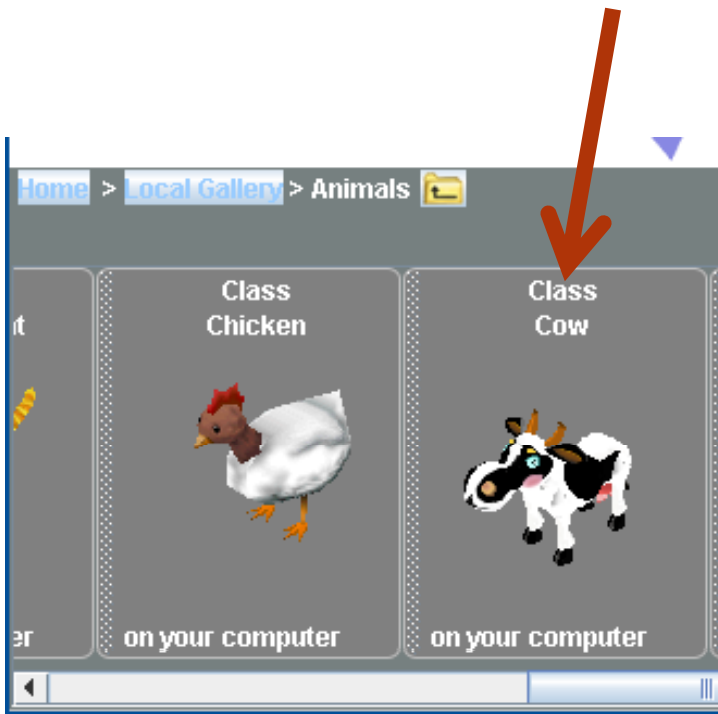
Make The Hay Bigger

- Click on the resize objects button

- Click on a bale of hay with the mouse.

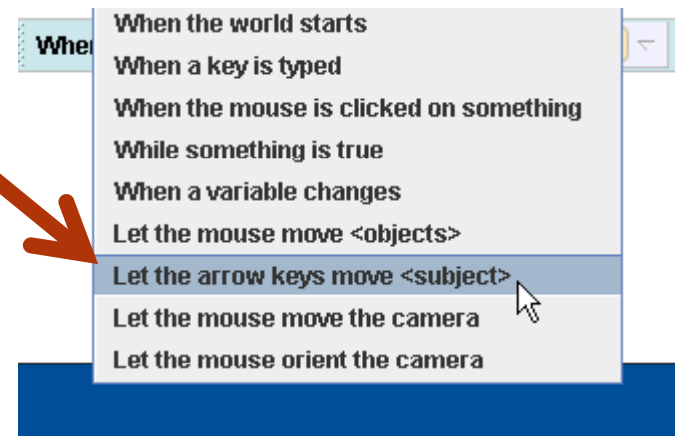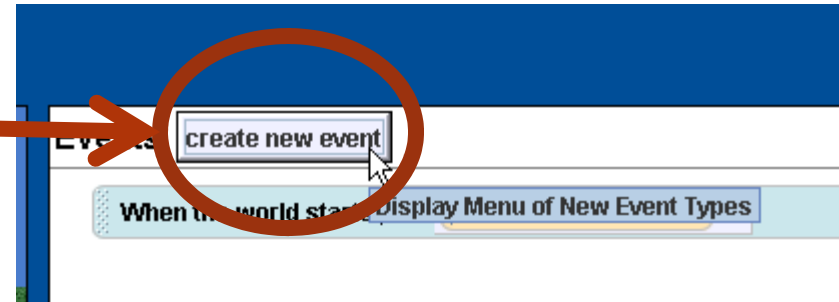- Move the mouse up to make it bigger.

- Make all 3 bigger

Exit Scene Editor

- Click the Done Button
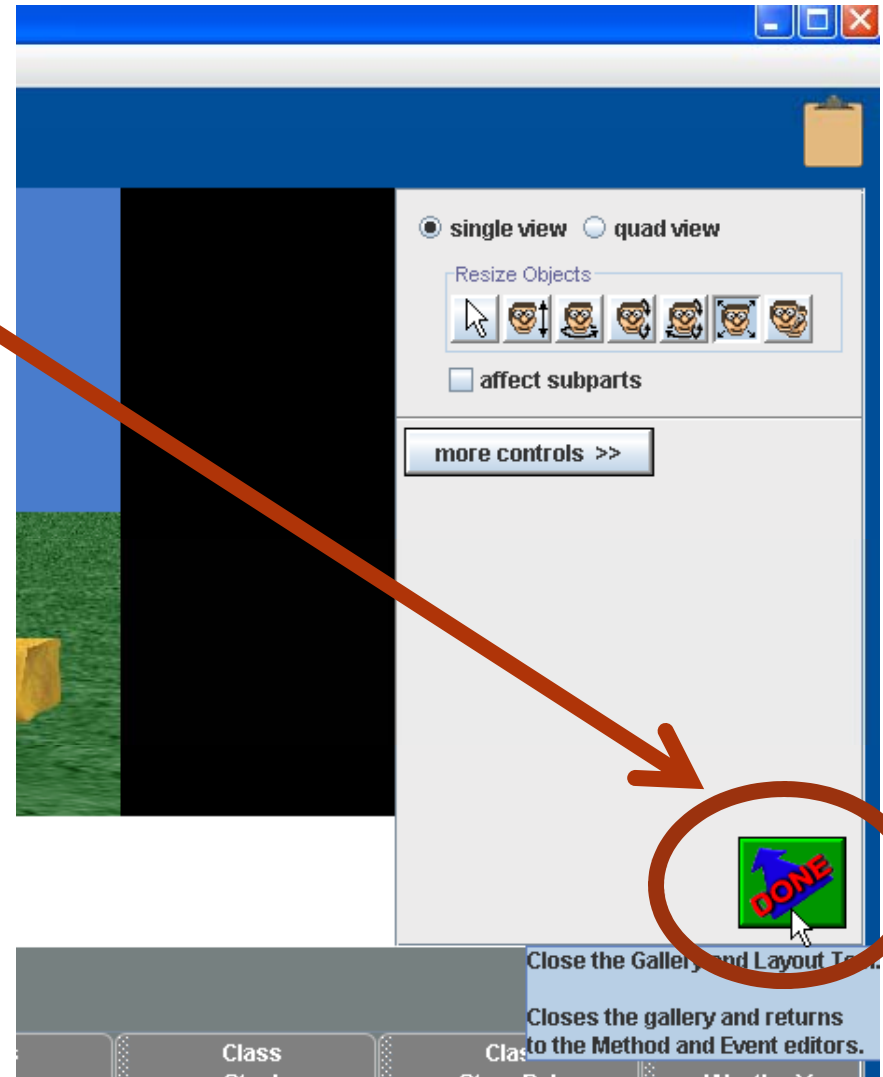
Add Events for Cow and Camera

- Click the create new event button

- Select the <u>let the arrow keys move <subject></u> choice

- Click the create new event button again.

- Select the <u>When the world starts</u> choice.
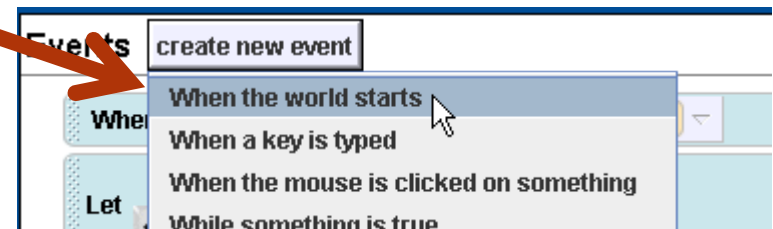
Events

- Events should now look like this:

Write program for eating Hay

- Drag a while icon from bottom of screen into the program.
  - While is on bottom of screen

Do in order | Do together | If/Else | | While | For all in order | For all together | Wait | print | //
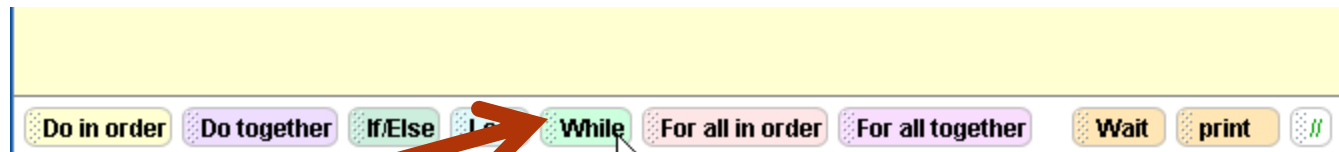
- Drag this   to here   **pick true**
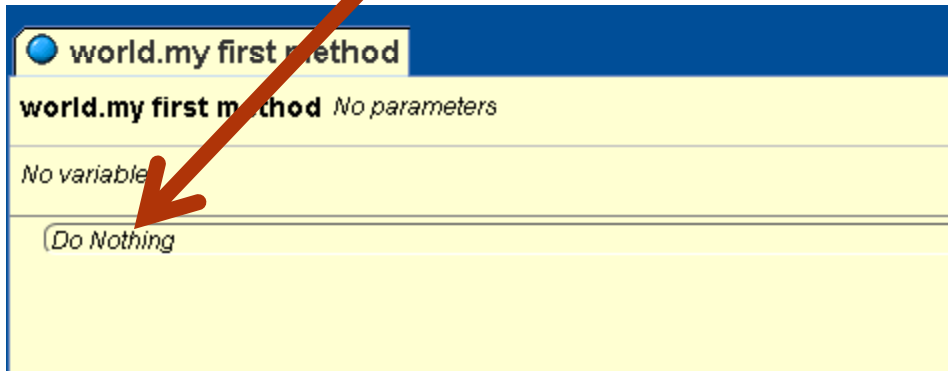
world.my first method

world.my first method *No parameters*

No variable

(*Do Nothing*)

While Loop

Add 3 ifs

- Drag 3 ifs from bottom into while loop.

- Pick true

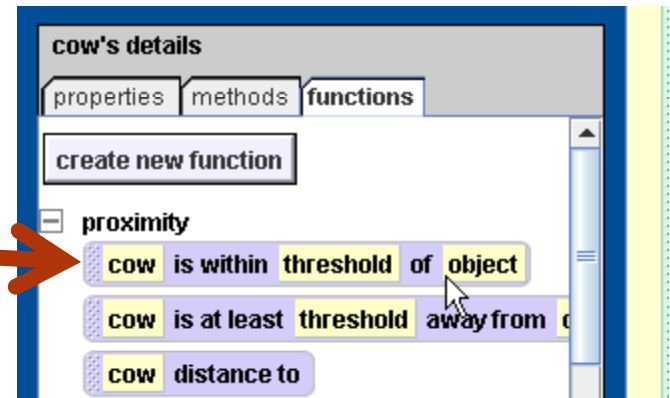# Program Looks Like This

Games in Alice

Pick the Cow

- Click the cow in the object tree

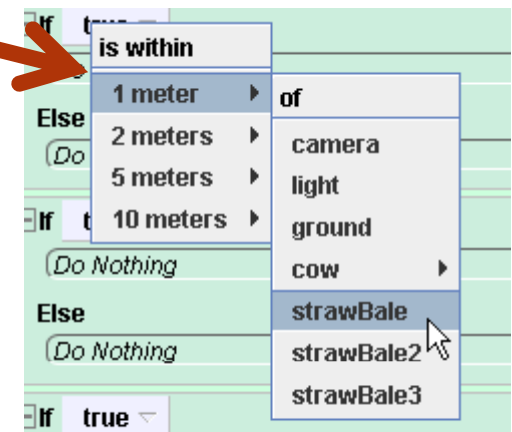- Click the functions tab
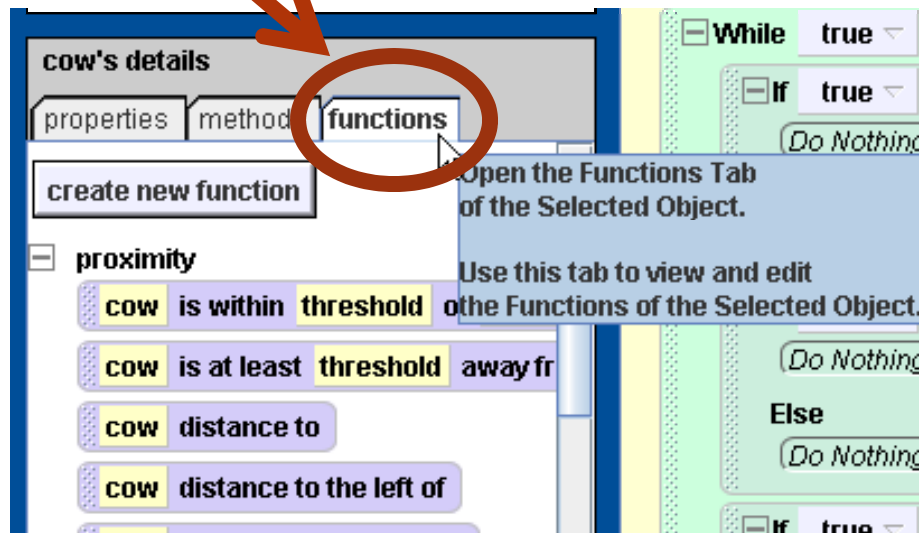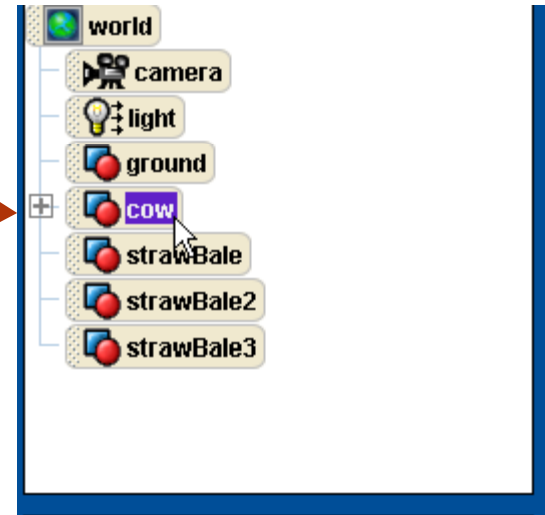
Drag into if

- Click and drag the <u>cow is within threshold of object</u> icon to replace the true in the first if

- When you drop icon select <u>1 meter</u> and <u>strawBale</u> from list

Complete ifs
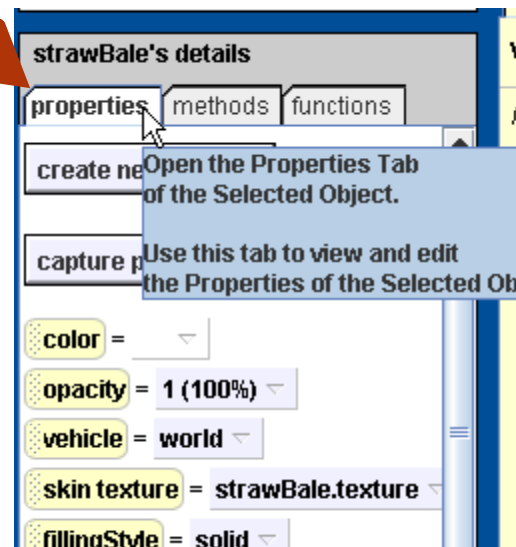
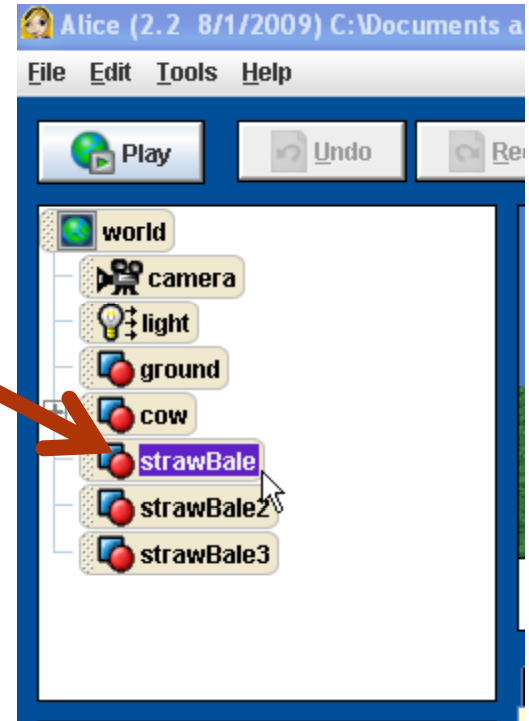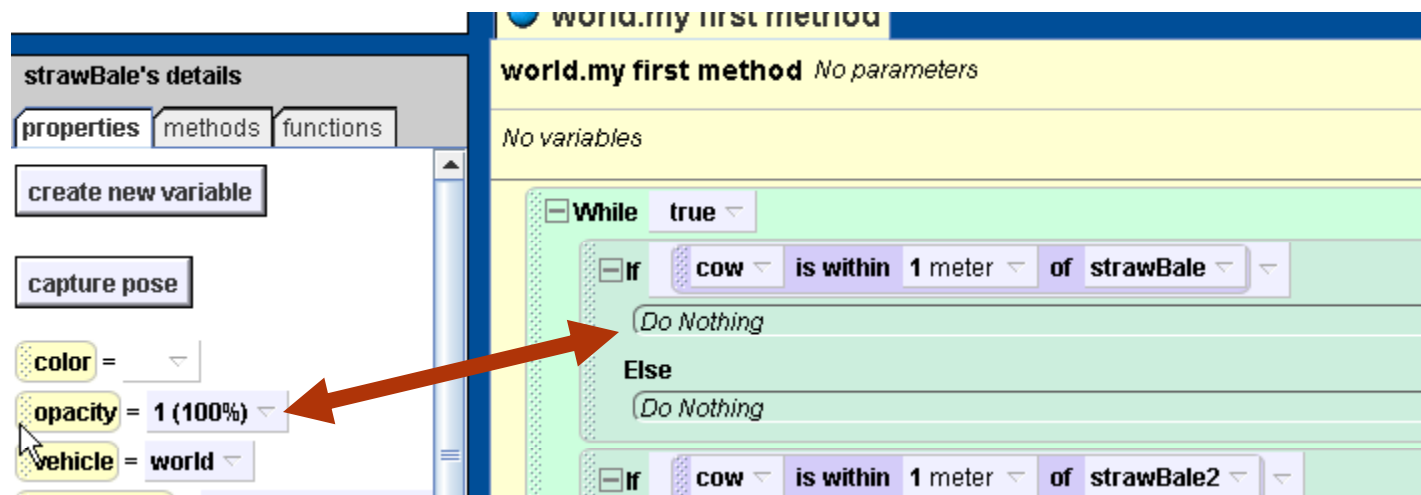- Repeat for other 2 ifs but pick strawBale2 and strawBale3

Make Hay Disappear

- Click strawBale in object tree

- Click the properties tab

Make Hay Disappear

- Click and Drag the opacity icon into the first if
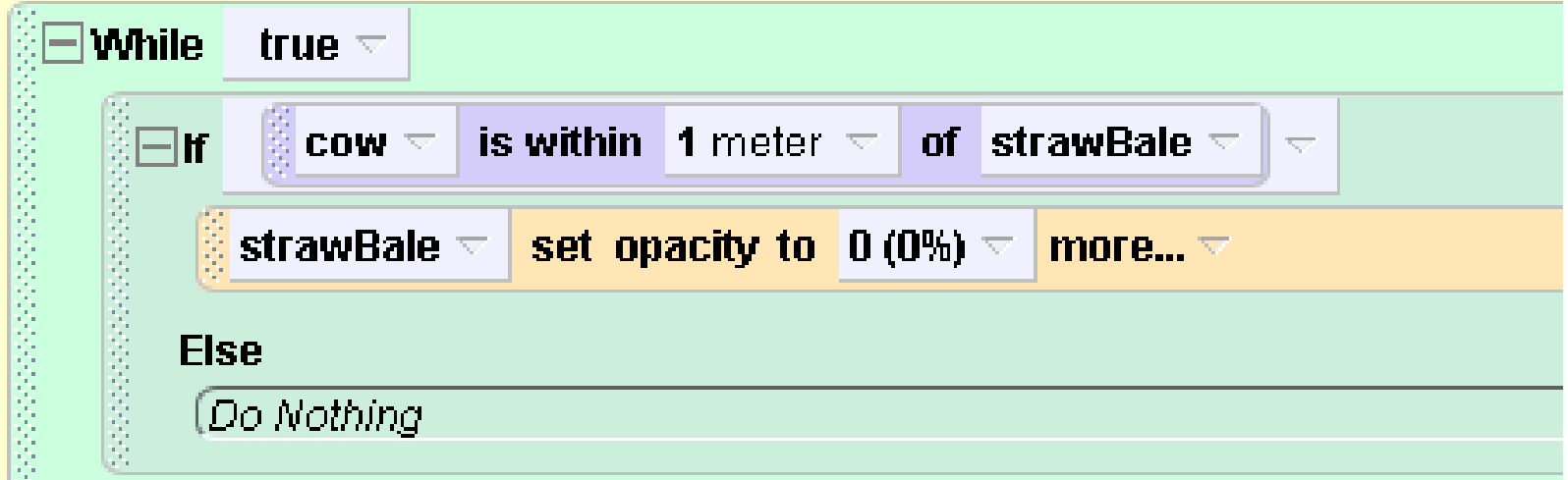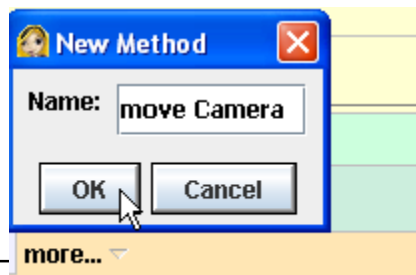- Pick 0 (0%: invisible)
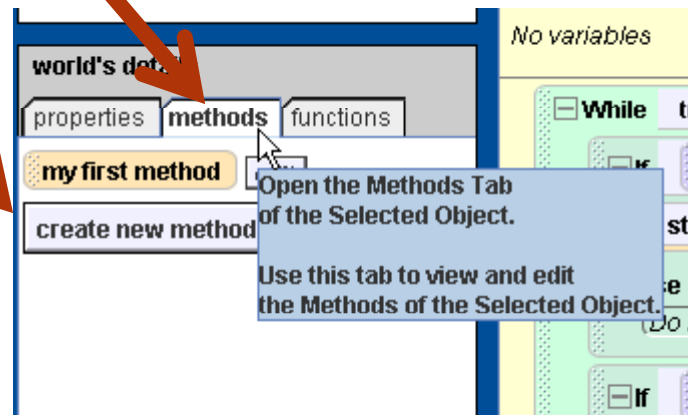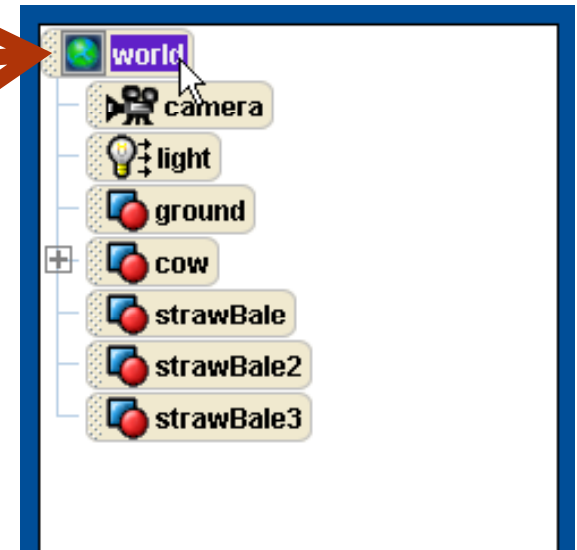
Result of Hay

Repeat for other Hay

- Do the same for the other 2 strawBales.
  - Select in Object tree, click and drag opacity icon, set to 0
 - Be sure to but strawBale2 into if for strawBale2

Create method for camera

- Click on World in the object tree

- Click on methods tab and then create new method button.

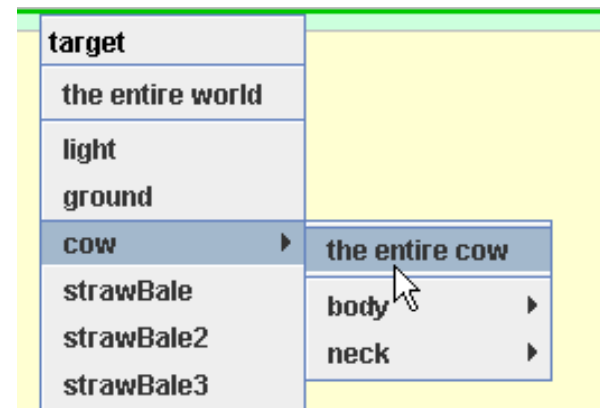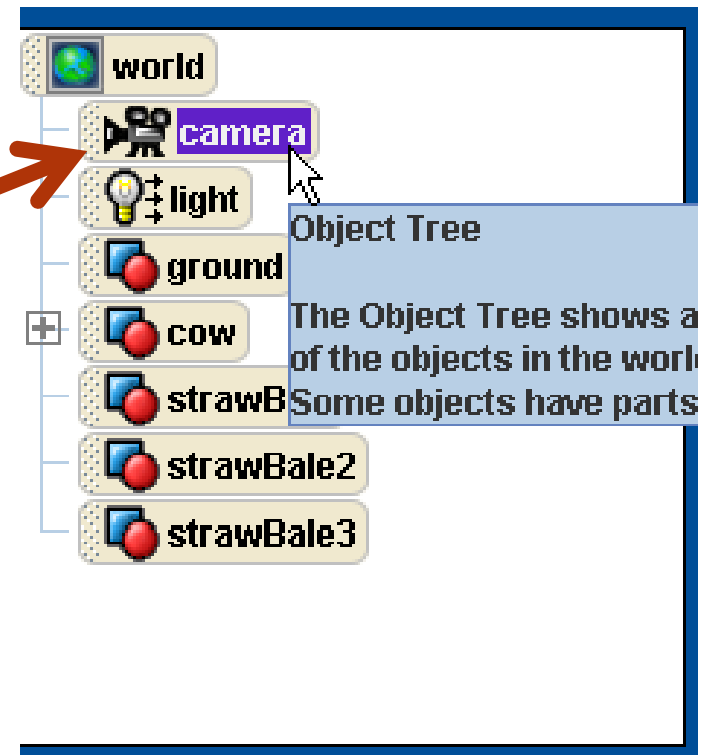- name method move camera

Games In Alice

move Camera

- click and drag while loop into move camera method

- select true

- click and drag wait icon from bottom into while loop

- select other from the menu and enter 5 in the calculator and click okay
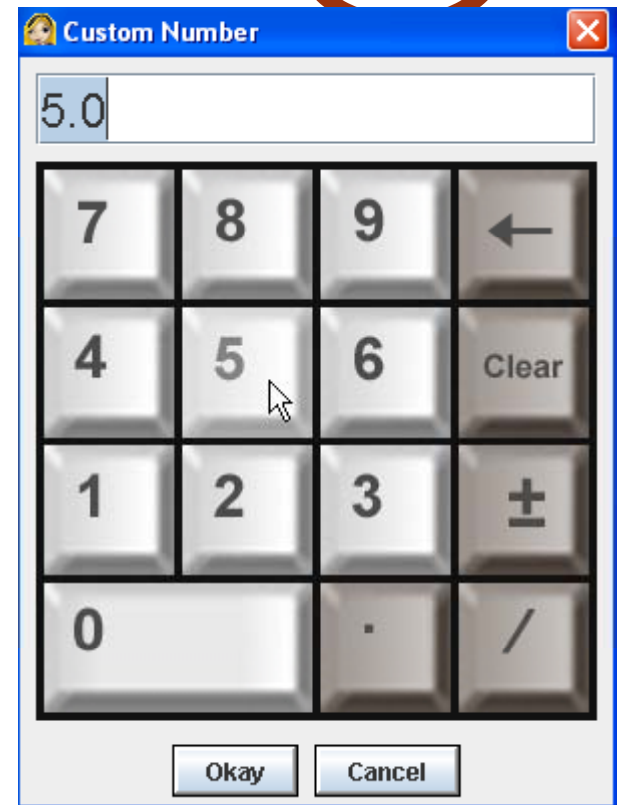
move camera

- select camera in object tree

- select the methods tab and scroll down

- click and drag the camera turn to face command into the while loop after the wait

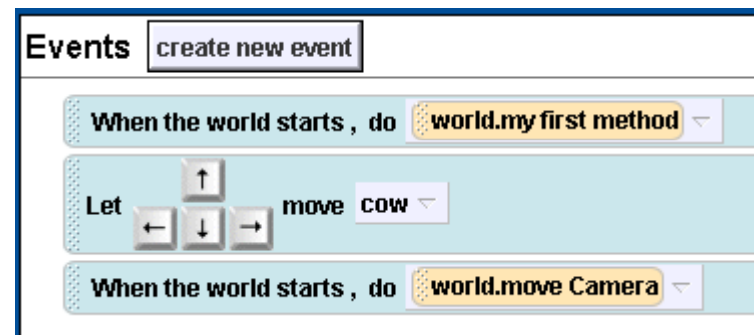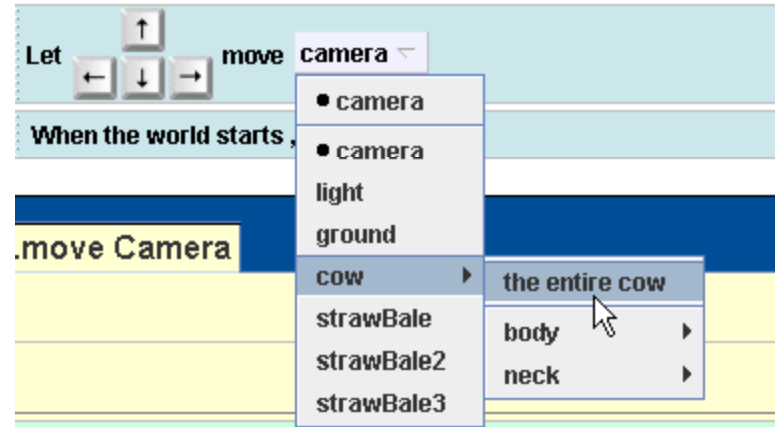- Select cow -> the entire cow from the menu

Alice

completed move camera

Set events

- In the events click the camera in the let the arrow keys control event and change to the cow -> the entire cow

- click the world in the object tree and then the methods tab

- click and drag the move camera icon and replace the nothing event in the bottom when the world starts event

Final Events

- Play!!!! Click the Play Button

Possible changes and additions

- Make the hay bales move
- Make the camera move towards the cow when it turns to face the cow
- Change camera vehicle to cow
- Add instructions
- Add a message when player wins
- Add more bales of hay or other objects
- Play a sound when the bale is eaten