

Lesson 1 Walkthrough

In this lesson you will walkthrough the first three tutorials and complete the exercises listed for each tutorial. After this lesson you will be able to:

- add a Kodu to your world and change the color of the Kodu.
- understand the concept of a condition (WHEN) and an action (DO).
- program the Kodu to respond to user input using the arrow keys on the keyboard.
- add apples to the world and change the color of the apples.
- program the Kodu to find and eat specified apples.
- add and paint terrain in your world.

First Tutorial

Launch Kodu and select “Load World”. Click on the First Tutorial and select play.

Walkthrough the first tutorial. When the screen says “Congratulations!” click on continue and finish the activities listed below.



1. Change the color of Kodu.

Make sure you are in edit mode (hit Esc) click on the Object tool and put your mouse over Kodu. Leave your mouse over Kodu and use the arrow keys to select a new color.

2. Adding a second condition to Kodu.

Make sure you are edit mode and right click on Kodu and select program. Add the following condition:

WHEN: keyboard ~ letters / J | Do: actions / jump



3. Modifying the Move and Jump actions.

Kodu initially moves slowly. We can change how quickly he moves and how high or low he jumps. Simply get to the program screen, and click on the plus sign to the right of the move tile to select “quickly”. Click on the plus to the right of jump and select one of the tiles. Play the program. **Exit the word and do not save.**

Programming Kodu to Find Apples Tutorial

Click on the house to exit to the main menu and select “Load World” (you do not have to save any work). Find the second tutorial “Programming Kodu to Find Apples Tutorial” and play the tutorial.

After you complete the tutorial click on continue and complete the activities below.

1. Change the color of the apple. Change the color of one of the apples to green.

2. Change Kodu’s Height. Kodu looks funny higher than the apples. To change Kodu’s height click on the object tool and then right click on Kodu and change the height to 0.42. Now Kodu is on the ground level.

3. Program Kodu to only eat red apples. Make sure you have the object tool selected. To modify existing tiles simply click on the tile and then you will be given more choices. Click on the apple tile and change it to **colors + red**. Click on the plus sign on the right of the red tile and add objects + apple. Now your program list should look like:



What happens if Kodu bumps into the green apple?

4. Program Kodu to do something when it does not see any red apples. After Kodu has eaten all the red apples we can program him to do something else when he does not see any red apples by using the “**not**” tile.



Play the world and when finished, exit and do not save.

Add Paint/Terrain Tutorial

Click on the house to exit to the main menu and select “Load World” (you do not have to save the previous work). Find the third tutorial “Add Paint/Terrain Tutorial” and play the tutorial.

This tutorial only shows you how to add terrain and change brush types and sizes. We will explore landscaping in future lessons. **Exit and do not save.**

Lesson 1 Activity. Creating Your Own World

Once you have completed the first three tutorials you are ready to create your own world with a simple animation sequence. Click on the “Home Menu” button and select “New Empty World”.



Camera Tool

Use the camera tool to adjust the view of your new world as you would like to see it during program



execution (use right click to move, left click to orbit camera, and scroll to zoom in and out)

Create your own world and add some terrain then add the following objects:

- 1 Red Kodu and change the height to ground level
- 10 red apples
- 10 green apples

Adjust the camera as needed before you run your program.

Animate the world by having Kodu eat all of the red apples and jump when it bumps into a green apple.

Game Activity

Add a second Kodu (on the ground level) and change the color to green. Program the Kodu so you can control it and have it eat the green apples and jump when it bumps into any red apples.

Can you eat the apples faster than the other Kodu?

Program the red Kodu to create more green apples when it bumps into the green Kodu and have the green Kodu create red apples when they bump.

Save the file as “Apple Race v 00” and then exit to the main menu. Select “Load World” and click on “Apple Race” and export it to your ‘H drive’. From the Load World Menu click on “Apple Race” and select delete.

Getting to know the Objects

Kodu has many objects that we can use in creating a world. In this short activity you will get a chance to explore objects provided by Kodu.

1. Create a new empty world. Click on the object tool to add a new object to the world. Click where you want the new object and then select the tile that with the saucer, cycle, and flying fish (see picture to the right).



3. Getting descriptions. Position your mouse pointer over the balloon and a pop up describing the balloon will appear. To see the example you hit the 'Y' key on the keyboard.

Read all the descriptions for each of the objects.

4. Program an object. Pick one of the objects and program it to move with the arrow keys and feel how it behaves.

5. Other objects. Browse through some of the other categories and see what objects are available and try them out.

When finished exit and do not save.

