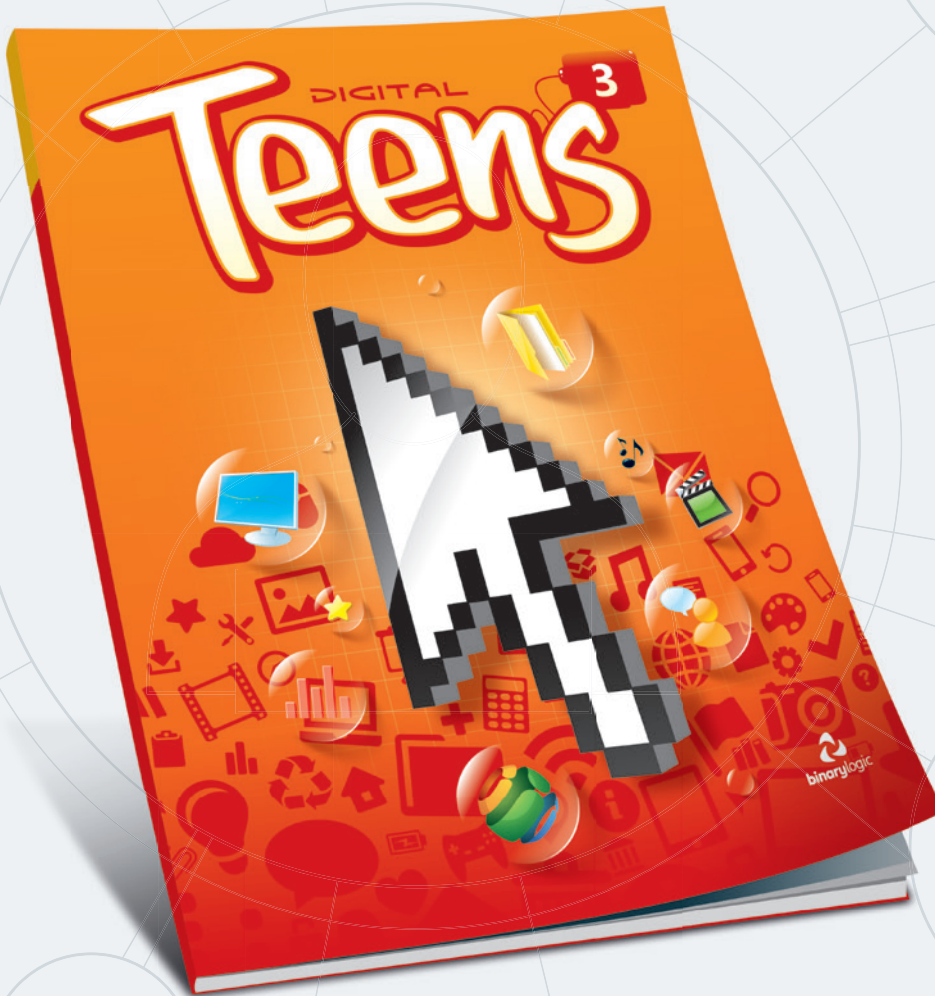


Online Teaching Resources

Digital Teens 3



Samples of

- > Lesson Plans
- > Activity Worksheets
- > Self-Evaluation Sheets

Syllabus

Handling databases

1. Structured information
2. Data entry forms
3. Queries
4. Reports
5. Import and export data
6. Project.

Documents for a purpose

1. Text documents
2. Spreadsheets
3. Presentations
4. Project 1 – Leaflet
5. Project 2 – Labels
6. Project 3 – Market research

Programming the computer

1. What is a program?
2. Variables and commands
3. Conditions and branching
4. Functions and subroutines
5. Have fun!
6. Project

Deep diving

1. Advanced networking
2. Servers and storage
3. I'm an IT administrator
4. Data and network security
5. Cloud storage
6. Project

ICT is fun

1. Design your website
2. Science projects
3. Robotics
4. Design your own game
5. Build your own radio station
6. Project

1

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12

TASK 3

Design your own game

Now you have an idea about how a program works. Are you ready to take the next step? How about creating your own computer game? There are a lot of game development applications. Some are easy to use and some are very complex and only experienced programmers and game designers can work with them. Here you will get an idea of what you can do with **Kodu Game Lab**.

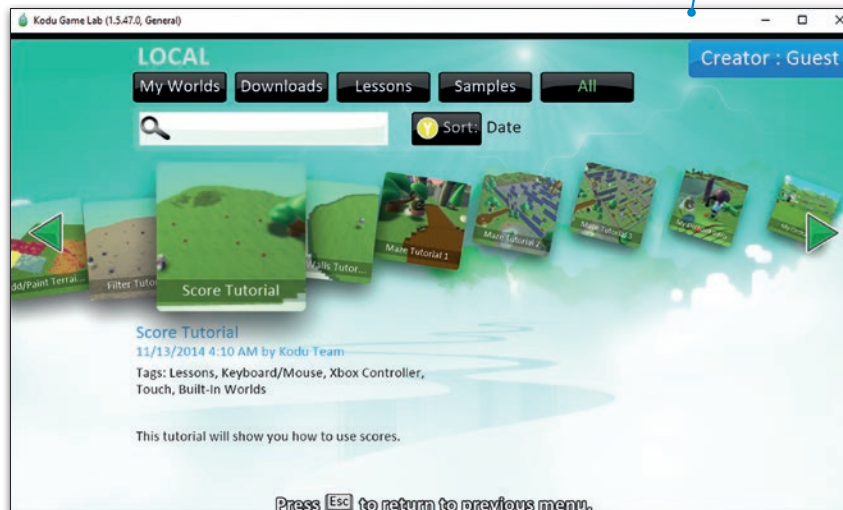
Kodu is a visual programming language made specifically for creating games. It is designed to express advanced game design concepts in a simple, direct, and intuitive manner. With Kodu, you have to analyze what you want to do and create a solution. It is free and you can download it from **Microsoft store** (www.microsoft.com/store). There you can also find the **Classroom Kit** with a lot of information and examples.

First, explore the existing games. Some are complete games and others are just worlds without a specific game play. Some are tutorials and help you learn how to create games and some show you specific procedures and are titled *Technique*. Play with some games to get an idea of how things work and then use the tutorials to start learning.



Start Kodu and choose **LOAD WORLD** to view existing games or start a new game.

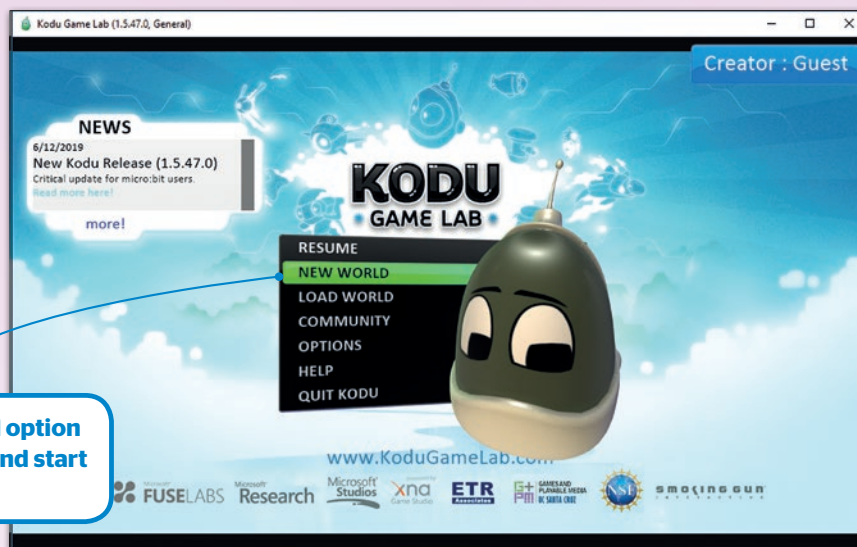
This is the first screen when we open the program.



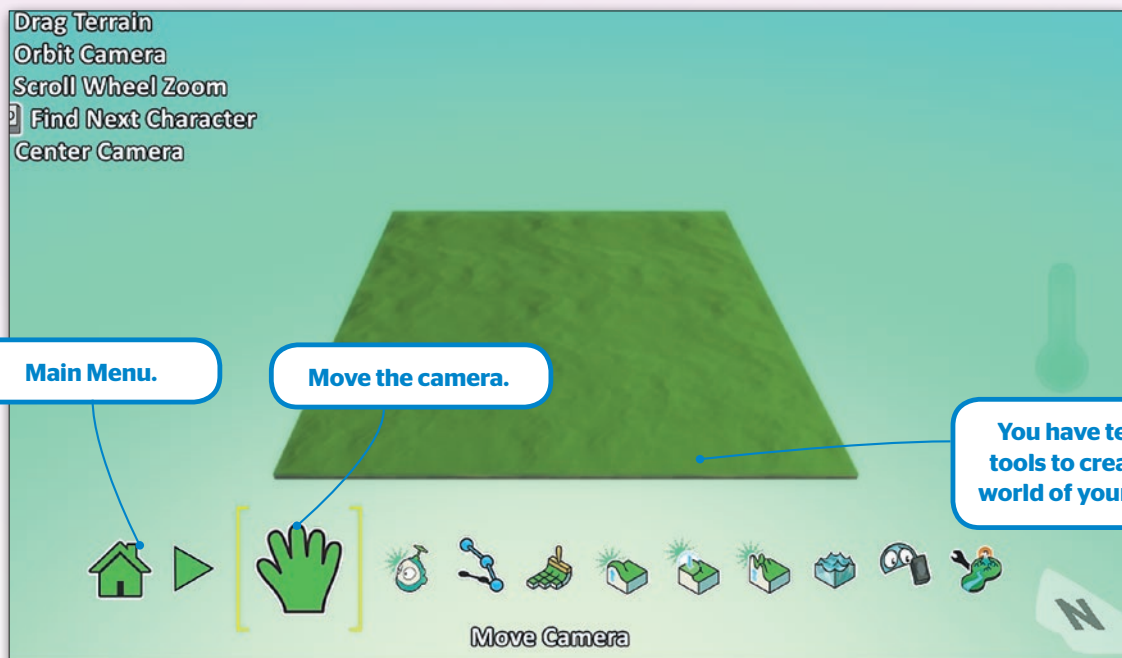
To create a new world, you must first have terrain

Terrain is created by painting with the terrain tools. You can select a color and a brush type (square, oval, square line or oval line). One easy way to make terrain is to increase the brush size (using the right arrow) and just put down a single square.

- 1 The other tools for dealing with terrain let you raise and lower the terrain, and smoothen the elevations or make them jagged.
- 2 Any water that is added must have terrain or land under it. By default, all worlds start with "glass walls", so water is contained and nothing can fall off the edges.
- 3 After you have created terrain, you can add and program objects and characters.



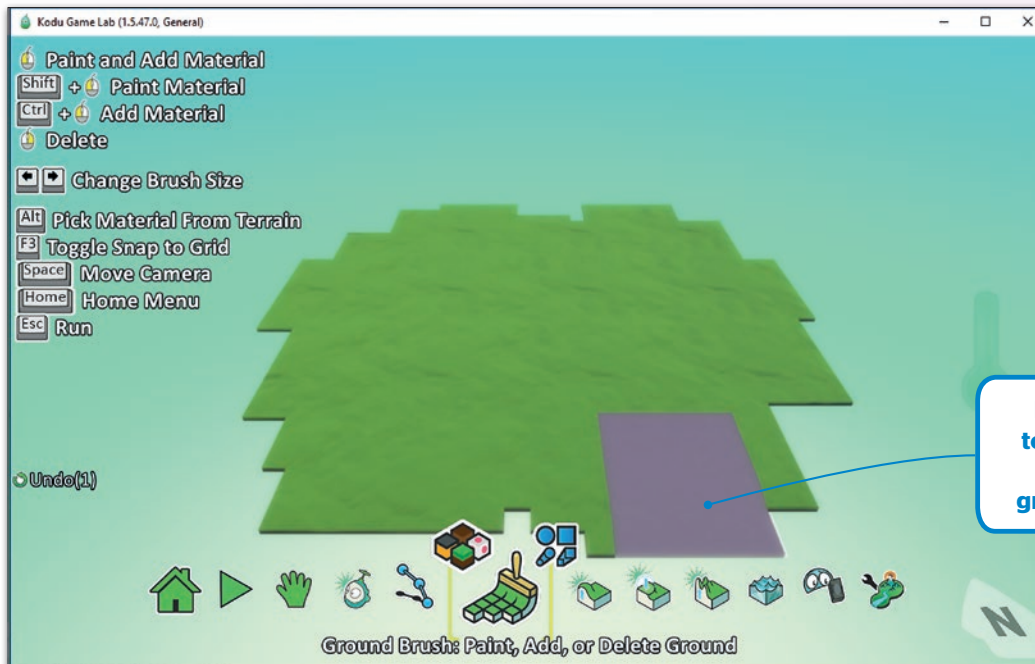
Choose the New World option to open a blank game and start building in it.



It's time to design our terrain.

To design the terrain:

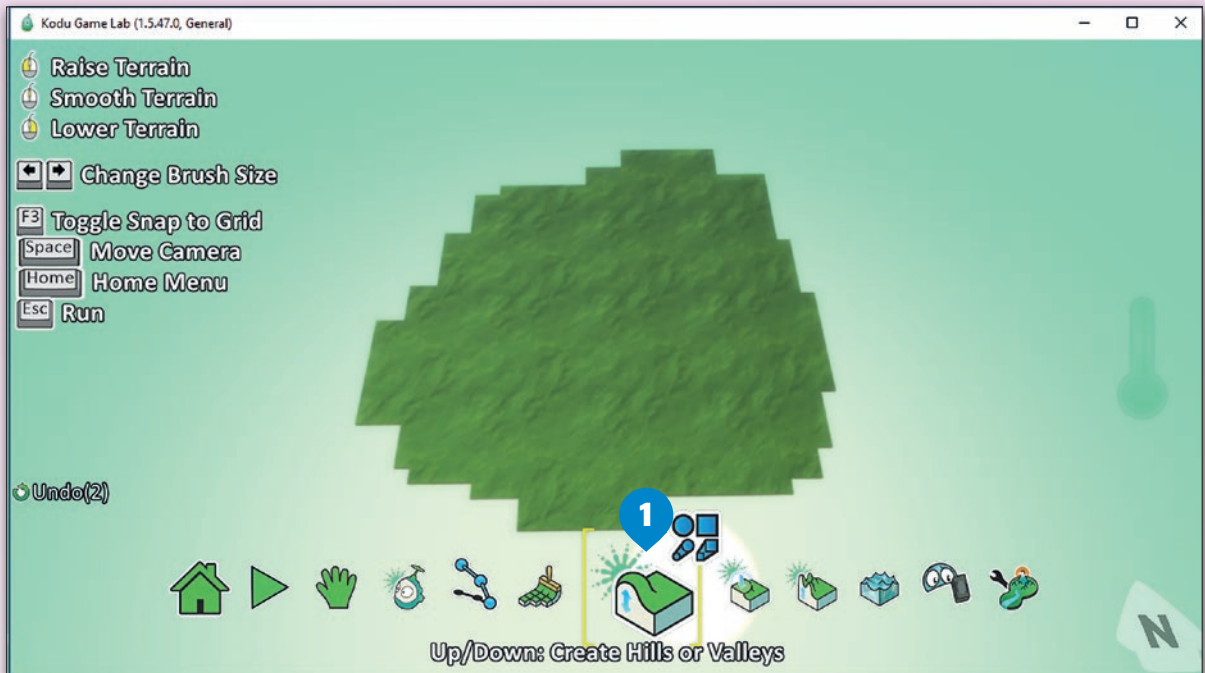
- > Select the **Brush** tool from the **menu bar**. **1**
- > Left-click outside of the terrain to add a patch of ground. **2**



We can use the **Up/Down** tool to create hills around our game world.

To create hills around your world:

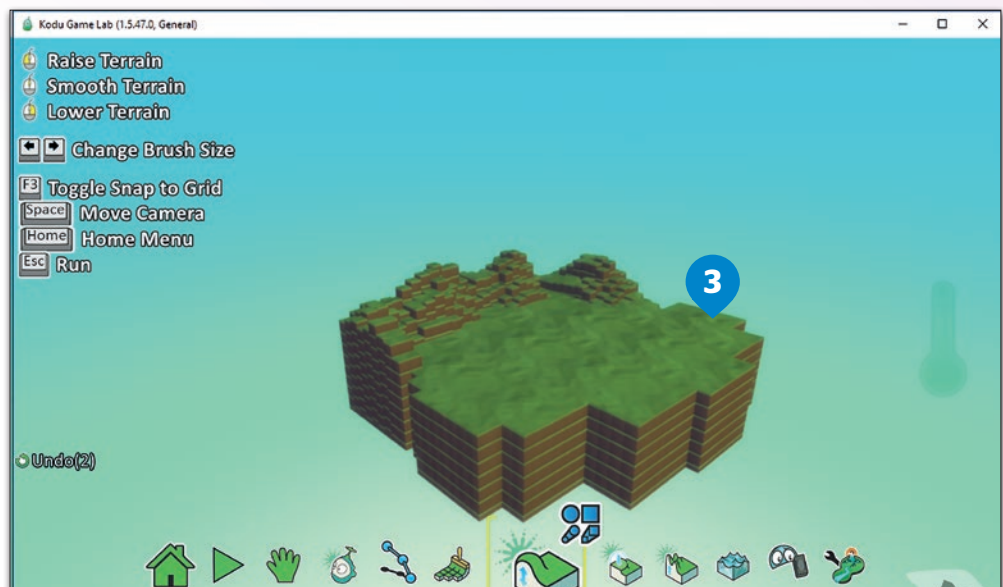
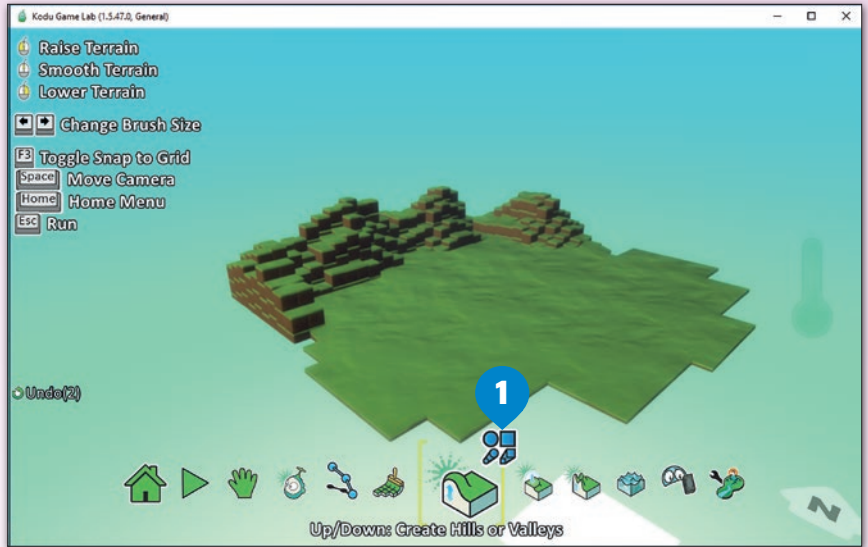
- > Select the **Up/Down** tool from the menu bar. **1**
- > Left click to raise the terrain. **2**
- > Right click to lower it. **3**



We can raise the whole game world a bit.

To raise the whole game world:

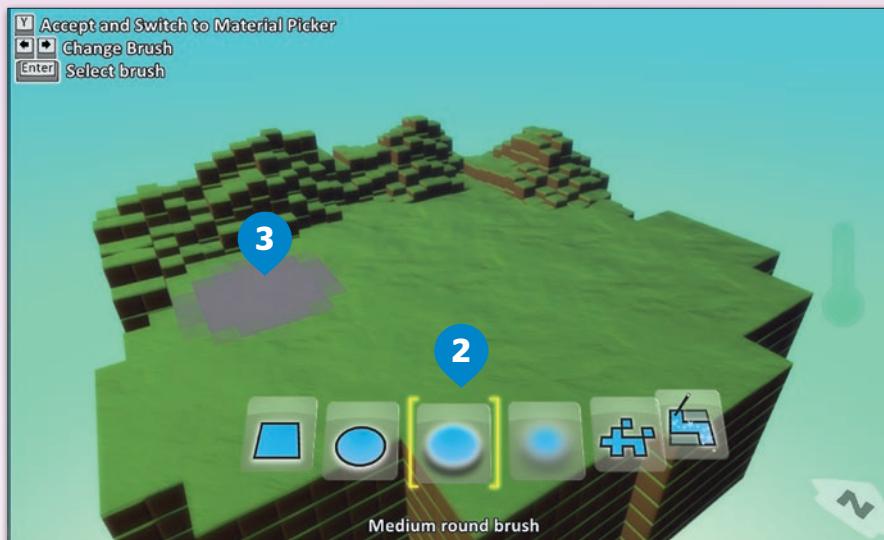
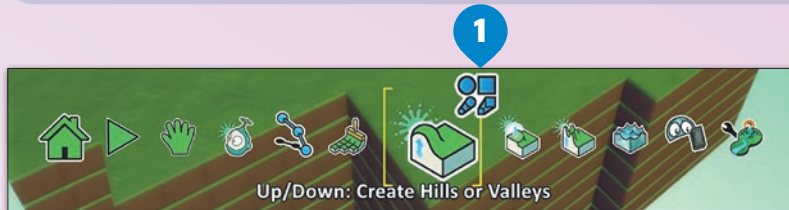
- > Click the blue icon that is directly above the **Up/Down** tool. **1**
- > Select the **Magic Brush** from the brush menu. **2**
- > Move the mouse over the terrain and click a few times to raise your whole world at once. **3**



Now that our terrain is raised, we can create a lake, in order to make it more interesting. First we have to lower a part of our terrain to hold the water later.

To make a lake:

- > Click the blue icon that is directly above the **Up/Down** tool. **1**
- > Pick one of the round brushes. **2**
- > Click and hold the right button to create your lake. **3**
- > If you think that it is too deep, click and hold the left button to raise it a bit. **4**

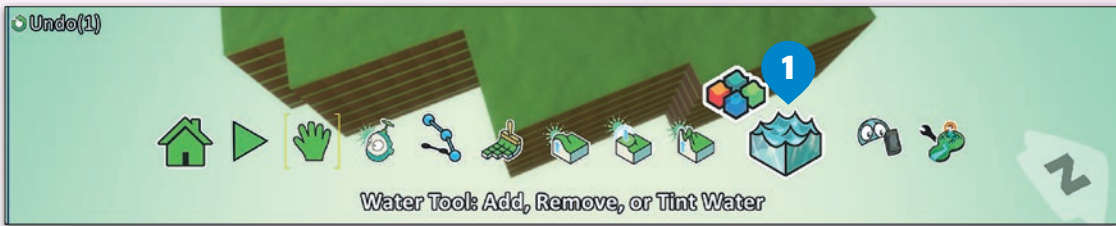


It seems the lake needs water!

If we add the water to a flat play area, it will be completely covered with water. To add water to the lake only, we have to raise the lake's edges in the play area a bit higher.

To add water to the lake:

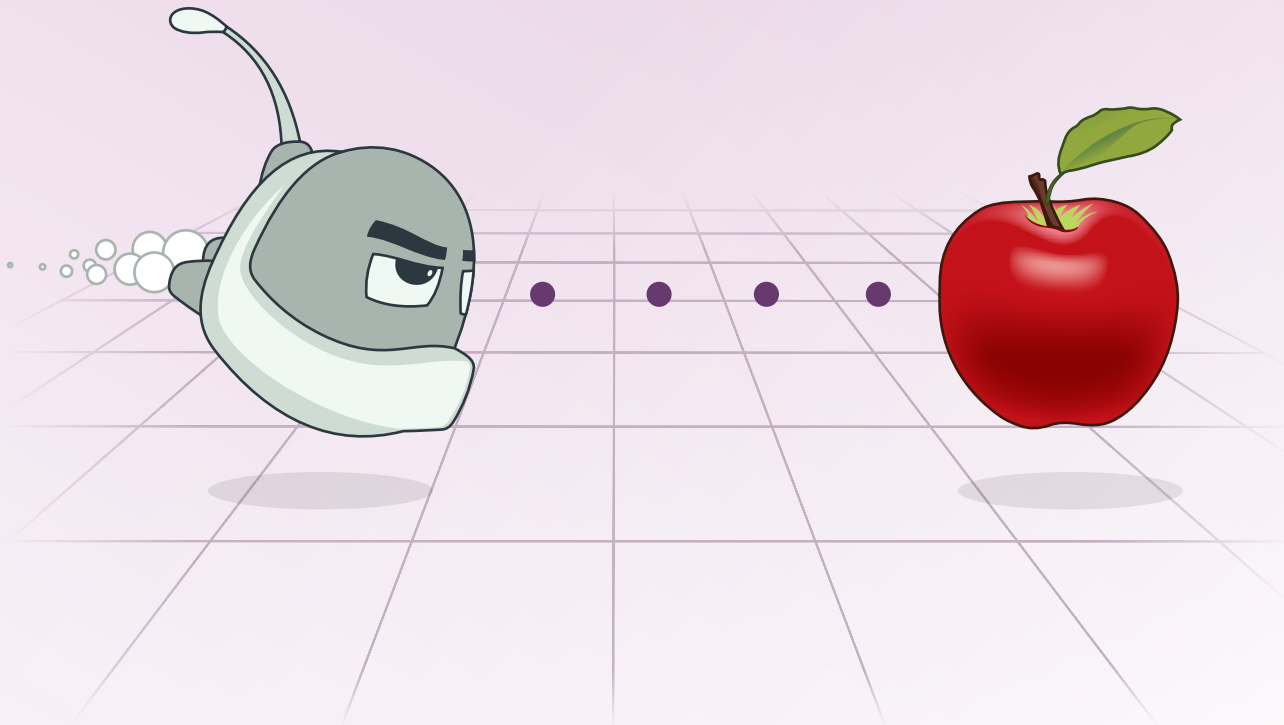
- > Select the **Water Tool**. **1**
- > Click and hold the left button of the mouse inside the world, to raise the water level. **2**
- > To lower the water, click and hold the right button. **3**



hands on!

Form teams and work with your teammates to complete each of the following steps.

- > Use the terrain tools to design the terrain.
- > Raise your terrain, create hills and smoothen the elevations.
- > Create a lake and add the water.
- > In the Home menu, save your world.



- > Terrain defines the boundaries of our game. True False
- > The terrain must be flat and you cannot change it. True False
- > When we add water to terrain, it covers the whole world. True False
- > The camera is static and cannot change view. True False
- > The camera should be placed somewhere to allow player to see the right amount of the game area. True False

