

Hope IT - Roblox - June 2021:

Week 1:

1) Introductions - 10:05

2) Prayer

Objectives:

- 1) On-line safety
- 2) Build:
 - a) Add parts: Move, scale, rotate
 - b) "Stud" measurement
 - c) Toolbox: Get Starting Spawn point
 - d) Properties: Anchor, Colors, Size, Material, etc.
 - e) Parent/Child
- 3) Script
 - a) Change Properties (like Colors) from a script
 - b) Event: Collision
- 4) Publish our game
 - a) Save our game
 - b) Publish our game
 - c) Find our games under our Profile-->Creations
- 5) Play our game
 - a) Play (F5)
 - b) Run (F8)

3) On-line safety: - 10:10

- a) **If you meet strangers in Roblox, only connect with them in Roblox**, not on other on-line environments, or with email or text.
- b) **Do not give strangers your personal information**, like phone number, full name, address, or email address, etc.

4) Open Roblox Studio: - 10:12

- a) Let's pick the baseplate
- b) Add a part
- c) Camera:
 - i) W-S (Forward/Back)
 - ii) A-D (Left/Right)
 - iii) Q-E (Up/Down)
 - iv) Mouse wheel: Zoom in

- v) Mouse right click hold: Move the camera perspective
- d) Explorer:
 - i) Shows everything to do with your game
 - ii) Parent/Child relationships
 - iii) This is a good article to learn more about the Menus:
 - <https://developer.roblox.com/en-us/resources/studio/View-Tab>
- e) Toolbox



Control	Action
W A S D	Move the camera
E	Raise camera up
Q	Lower camera down
Shift	Move camera slower
Right Mouse Button (hold and drag mouse)	Turn camera
Mouse Scroll Wheel	Zoom camera in or out
F	Focus on selected object

- 5) **Build - 10:15**
 - a) Properties

- i) BrickColor
- ii) Color
- iii) Material: Plastic, Neon
- iv) *OK...let's save our game...we should this often***
- v) Size: "Stud" measurement
 - (1) Move (and Position property changes)
 - (2) Scale (and the Size property changes)
 - (3) Rotate
- vi) Anchor

6) Let's play this game for a bit - 10:25

- f) Play (F5) - with the avatar
- g) Run (F8) - without the avatar

7) More Build (if we have time) - 10:35

- a) Let's create many parts
 - i) Use "Duplicate"
 - ii) Move them apart from each other
 - iii) Let's rename them each as Part1, Part2, Part3, and Part4.
- b) Space them a bit from each other
- c) Let's get rid of the baseplate - select it in the Explore, and delete it.
- d) Let's add another part on the last part.
 - i) Let's make it red and neon.
 - ii) Let's name this part: LavaRock

8) Scripting: Add instructions - 10:50

- a) Let's add a script
 - i) Right-click on our "LavaRock" part, and select "Insert Object"
 - ii) Pick "Script"
- b) Let's add the below to this new script.

```

script.Parent.Touched:Connect(
    function(hit)
        if hit.Parent:FindFirstChild("Humanoid") then
            hit.Parent:BreakJoints()
        end
    end
)

```

- c) Let's Play: Play (F5) - with the avatar
- d) Let's change some the color of the parts. - 11:05
 - i) Add a Script under Workspace.
 - ii) Let's rename it "MainScript"

iii) Let's change the Color of each part with the below code:

```
game.Workspace.Part1.BrickColor=BrickColor.new("Pastel  
green")
```

```
game.Workspace.Part2.BrickColor=BrickColor.new("Gold")
```

```
game.Workspace.Part3.BrickColor=BrickColor.new("Teal")
```

```
game.Workspace.Part4.BrickColor=BrickColor.new("Pink")
```

Our code	Variable Example: currentTime = 7
Objects	Property Example: Part.BrickColor=BrickColor.new("Red")

e) Let's Play: Play (F5) - with the avatar

9) Publish - 11:15

- Select: File → "Publish to Roblox"
- Let's name your game
- In File → "Game Settings", under Permissions, select "Public"
- Let's see your game under on Roblox.com, under Profiles --> Creations.

10) Challenge - Change a few more Part properties, either on the Build side, or using scripting.

11) Scriptural reflection:

Noah: Genesis 6:5-10

⁵The LORD **saw** that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. ⁶And the LORD was sorry that he had made man on the earth, and it grieved him to his heart. ⁷So the LORD said, "I will blot out man whom I have created from the face of the ground, man and beast and creeping things and birds of the air, for I am sorry that I have made them." ⁸**But** Noah found favor in the **eyes** of the LORD.

⁹These are the generations of Noah. Noah was a righteous man, blameless in his generation; Noah walked with God. ¹⁰And Noah had three sons, Shem, Ham, and Japheth.

Reflection:

- 3 things here: God, creation, and people
- Doesn't mention why Noah is called righteous. He is different that the wickedness, evil around him.
- All that good work God did...God wants to undo it? The Lord was sorry that he had made man? God's heart is torn. Creation needs to be in-step with the creator, or there is consequences.

Hope IT - Roblox - June 2021:

Week 2:

Objectives:

- 1) Build:
 - a) Model - Group many parts together
 - b) Toolbox: Checkpoint
- 2) Script
 - a) Output window
 - b) How to run the game without the avatar: Run (F8)
 - c) Review Properties (like Colors)
 - d) Variables
 - i) Put to text together: Use “..”
 - e) WHILE Loop
 - f) IF statement
- 3) Publish our game
 - a) Save our game
 - b) Publish our game
 - c) Find our games under our Profile-->Creations
- 4) Play our game
 - a) Play (F5)
 - b) Run (F8)

1) Prayer

2) Welcome - any questions.

3) Build

a) Models: Group many parts together

- i) Let's highlight all our Part1, Part2, Part3, and Part4 together.
- ii) Select them all, and right-click, and pick “Group”
- iii) Notice this is more cleaner.
- iv) Now we can do a few things:
 - 1) We can rename the group as “Steps”.
 - 2) We can duplicate all the Steps at once...try it.
 - 3) Save it separately.
 - 4) Publish it separately
 - (a) Unlock it so others can use it...if you like.
 - (b) You can see the model on your Profile-->Creation tab.

- v) Let's add other model created by others.
 - 1) Let's add a pine tree, picnic bench, and a fire pit.
 - 2) Notice these models have many parts.

b) **Check points: You come back to this point if you die, instead of the very start.**

4) Script

a) Output window

- i) Can see errors and print outs.
- ii) Notice our parts are not changing colors anymore...why?
 - 1) Part1 is not longer a Child of Workspace.
 - 2) It's now a Child of Steps. And Steps is a Child of Workspace. Let's change this line of code.

```
game.Workspace.Step1.Part1.BrickColor=BrickColor.new("Pastel green")
```

b) Variables

- i) They can hold a text.

```
name = "mike"

print("Hello " .. name )
```

- ii) They can hold a number.

```
CurrentHour=7
```

c) Properties:

- i) These are variables in an object.

```
game.Lighting.TimeOfDay = 7

game.Lighting.TimeOfDay = 1
```

d) Let's use assign these Properties to a variable:

```
CurrentHour=7

game.Lighting.TimeOfDay = CurrentHour
```

e) WHILE loop

- i) A loop is instruction to repeat something over and over again.
- ii) The WHILE loop keeps going until a condition is met (so it'll stop).
- iii) Wait is an instruction to pause (in seconds). We will wait 3 seconds.

- 1) We need to have Roblox wait in a loop, or our game will crash/stop in error.
- iv) Now we need to increase the time by one hour (every 3 seconds)

```

CurrentHour=7
while 1==1 do
    wait(3)
    game.Lighting.TimeOfDay = CurrentHour
    CurrentHour = CurrentHour + 1
end

```

- Let's play our game...does it work?

f) IF statement

- i) Run different instructions depending on certain conditions

```

CurrentHour=7
while 1==1 do
    wait(3)
    if CurrentHour==24 then
        CurrentHour = 1
    else
        CurrentHour = CurrentHour + 1
    end
end

game.Lighting.TimeOfDay = CurrentHour
end

```

Our code	Variable Example: CurrentHour = 7
Objects	Property Example: Part.BrickColor=BrickColor.new("Red") game.Lighting.TimeOfDay = 7

g) Let's build another part and Checkpoint

- i) Add part, and put the part next to the last Step Model
- 1) Make it brown, and WoodPlanks material.
- ii) Add a Checkpoint, but duplicating the last Checkpoint
- 1) Notice the Event script was also copied

2) Let's change the TimeOfDay to 7am

- Let's play our game...does it work?

- h) Let's create one more part
 - i) Duplicate Wood part.
 - ii) Now, make this part much higher than the all the rest.

5) Publish: Do you see this as your 2nd game?

- Does anyone like to share your game so the rest of us can play?

6) What other things you like our game to do?

Scriptural Reflection: (11:20)

- 1) Noah:
 - a) Destroy them with the earth...make an ark (Genesis 6:11-16)

Hope IT - Roblox - June 2021:

Week 3:

Objectives:

- 5) Build:
 - a) Parts - Review
 - b) Model: Motorcycle
 - c) Add sounds to our game with Audio files
- 6) Script
 - a) Comments in your code - "Commenting out" (ignoring) your code
 - b) Functions
 - c) Methods (On Sound object, let's play and stop an audio file.)
 - d) Objects & Object Explorer
- 7) Publish our game
 - a) Save our game
 - b) Publish our game
 - c) Find our games under our Profile-->Creations
- 8) Play our game
 - a) Play (F5)
 - b) Run (F8)

1) Prayer

2) Welcome - any questions.

3) Build

- c) Parts:
 - i) Let's review to make parts.
 - 1) Create one...scale it wide and long.
 - 2) Let's make it Material of Sand.
 - ii) Let's make another one, using Duplicate.
 - 1) Place it sort of to the side, and further back.
 - iii) Let's create another one...Duplicate it again.
 - iv) Let's add a "Wedge" part. Let's make it a ramp at the end.
- d) Let's add a Motorcycle (it's a Model...made up of several parts)
 - i) Toolbox - Models - Motorcycle
- e) Check points: You come back to this point if you die, instead of the very start.

4) Script

a) Comments in your code

- i) Add comments in your code - Roblox will not try to run this as an instruction.

```
--Loop thru hours of the day
```

- ii) This also means you can “comment out” your code - make Roblox ignore code

```
--game.Lighting.TimeOfDay = CurrentHour
```

- iii) Can “comment out” multiple lines of code

```
--[[  
if count < 10 then  
    game.Lighting.TimeOfDay = "0"..count..':00:00'  
else  
    game.Lighting.TimeOfDay = count..':00:00'  
end  
--]]
```

b) Functions:

- i) We have seen some functions before: print & wait
- ii) Now we are going to create our own function.
- iii) The “end” tells where function stops
- iv) Parameter: A variable given to the function

```
function ChangeTimeOfDay(newtime)  
    game.Lighting.TimeOfDay = newtime  
end
```

c) Methods: These are Functions in an Object:

- Let's play Audio...make sounds in our game
- Go to the Toolbox, and select “Audio”
- Find a sound you like...you can test by playing it for a while
- If you like it, double click it. See it in your game Explorer
- Let's add the below code: Notice the Methods: Play & Stop

```
if CurrentHour==20 then  
    script.Parent["Night Forest Sound"]:Play()  
elseif CurrentHour==5 then  
    script.Parent["Night Forest Sound"]:Stop()  
end
```

- Let's find a motorcycle sound, and play it when our avatar touches the motorcycle.

Our code	Variable Example: CurrentTime = 7	Function Example: ChangeTimeOfDay(7)
Objects	Property Example: Part.BrickColor=Brick Color.new("Red")	Method Example: script.Parent.Sound1:Play()

- Let's play our game...does it work?
- d) Let's make the game a little harder. Let's make the sand part slower decrease in size.
- FOR loop:
 -

5) Publish: Do you see this as your 2nd game?

- Does anyone like to share your game so the rest of us can play?

6) Challenge - Add an motorcycle audio file, and play it when the avatar gets on and off the motorcycle.

7) What other things you like our game to do?

8) Scriptural Reflection: (11:20)

Noah:

- b) Covenant with you...to keep them alive with you (Genesis 6:17-22)

Hope IT - Roblox - June 2021:

Week 4:

Objectives:

- 1) Build:
 - a) Plugins: Waterfall
- 2) Scripting:
 - a) Lua
 - b) Review Object Browser: Methods, Properties, and **Events**
 - c) Review our Collision Event
 - d) New Event:
- 3) Review
- 4) Survey
- 5) Play our games

1) Prayer

2) Welcome - any questions.

3) Build

f) Models: Group many parts together

- i) Let's highlight all our Part1, Part2, Part3, and Part4 together.
- ii) Select them all, and right-click, and pick "Group"
- iii) Notice this is more cleaner.
- iv) Now we can do a few things:
 - 1) We can rename the group as "Steps".
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 - 3) Save it separately.
 - 4) Publish it separately
 - (a) Unlock it so others can use it...if you like.
 - (b) You can see the model on your Profile-->Creation tab.
- v) Let's add other model created by others.
 - 1) Let's add a pine tree, picnic bench, and a fire pit.
 - 2) Notice these models have many parts.

g) Check points: You come back to this point if you die, instead of the very start.

4) Script

- a) **Lua:** This is the programming language Roblox Studio uses.

<https://www.tiobe.com/tiobe-index/>

b) Object Browser

- i) List Objects, and their Properties, Methods and Events.
- ii) This is called Object-Oriented programming (OOP)
- iii) Let's look at Objects using the Object Browser

Our code	Variable Example: currentTime = 7	Function Example: ChangeTimeOfDay(7)	
Objects	Property Example: Part.BrickColor=Brick Color.new("Red")	Method Example: script.Parent.Sound1:Play()	Events Example: script.parent.Touched

c) Review Events:

```
script.Parent.Touched:Connect(  
    function(hit)  
        if hit.Parent:FindFirstChild("Humanoid") then  
            hit.Parent:BreakJoints()  
        end  
    end  
end  
)
```

d) Let's use another Event

- Let's play our game...does it work?

e) Let's create one more part

- i) Duplicate Wood part.
- ii) Now, make this part much higher than the all the rest.

5) Publish: Do you see this as your 2nd game?

- Does anyone like to share your game so the rest of us can play?

6) What other things you like our game to do?

7) Scriptural Reflection (11:20)

Noah: Flood came (Genesis 7:1-6)

Reflection:

-

Questions:

- **Can you save your place in the game...at a checkpoint..once stopping the game and playing again tomorrow?**
- **How to restart from the Breakpoint**

Install Roblox Studio:

- **Windows: Run as administrator**