

# Blender Environment Tutorial

Updated July 2022

How to add an environment to your Blender File.

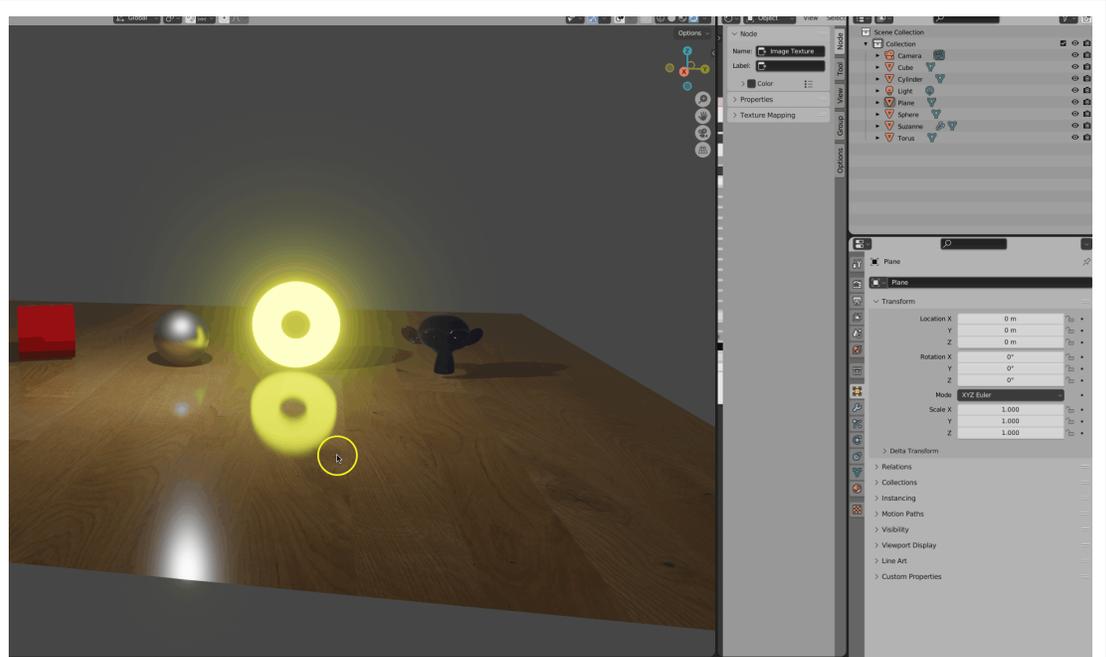
## To add a basic colour!

Simply press on the 'World' icon within the Properties Viewport

Select Colour

Change your colour and there ya have it!

*The problems with this, is that it makes almost everything the same colour as your background, and leaks onto your 3D design... not always the best!*



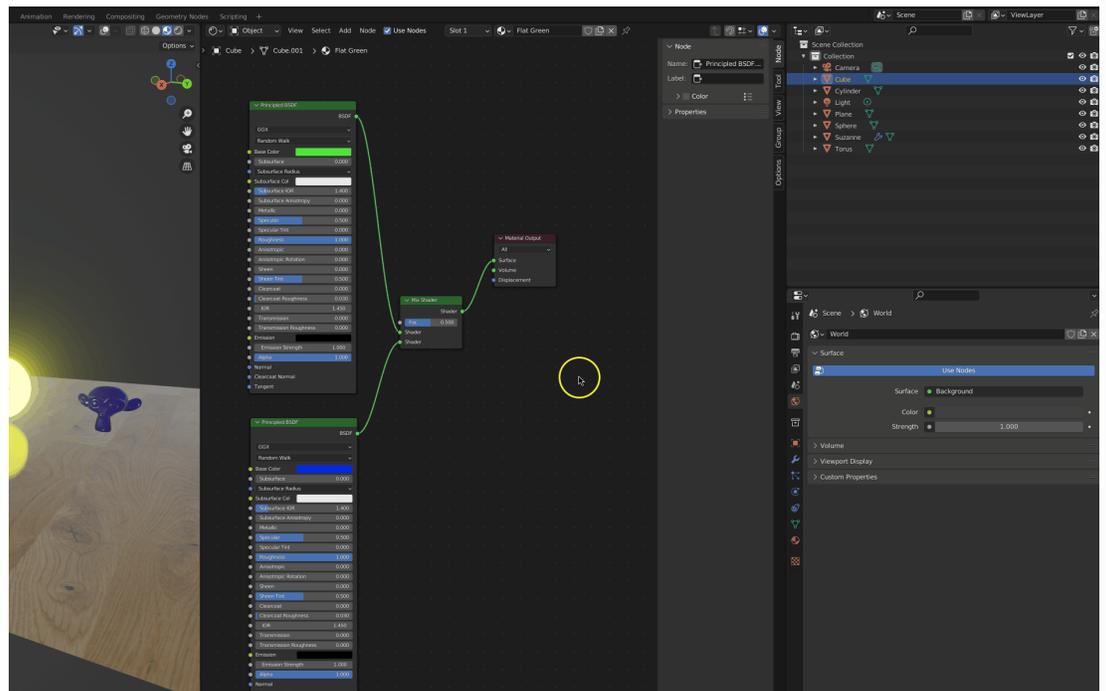
## How to use Nodes to create dynamic backgrounds!

### Step 1:

Split your screen and set it to your 'Shader' Screen.

Change the upper variable from 'Object' to 'World'

You should see two little nodes when complete.



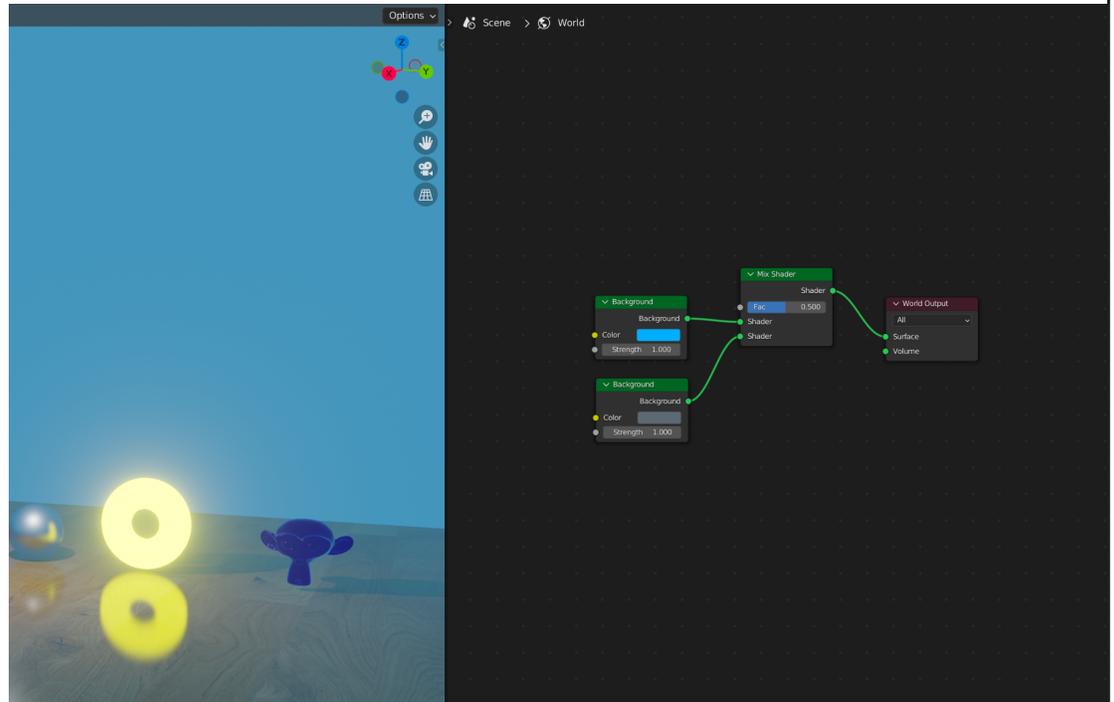
## Step 2:

Lets say we have our blue background, but we didn't want it to project blue onto our project, we can fix that!

To do that, duplicate the 'Background' and make it another shade. Lets say.. Grey.

Then, Add a 'Mix Shader' (just like we did with the cube earlier!)

Connect the two backgrounds. And you'll see minor differences, but nothing too crazy. Still blue. Needless to say, it should look like this.



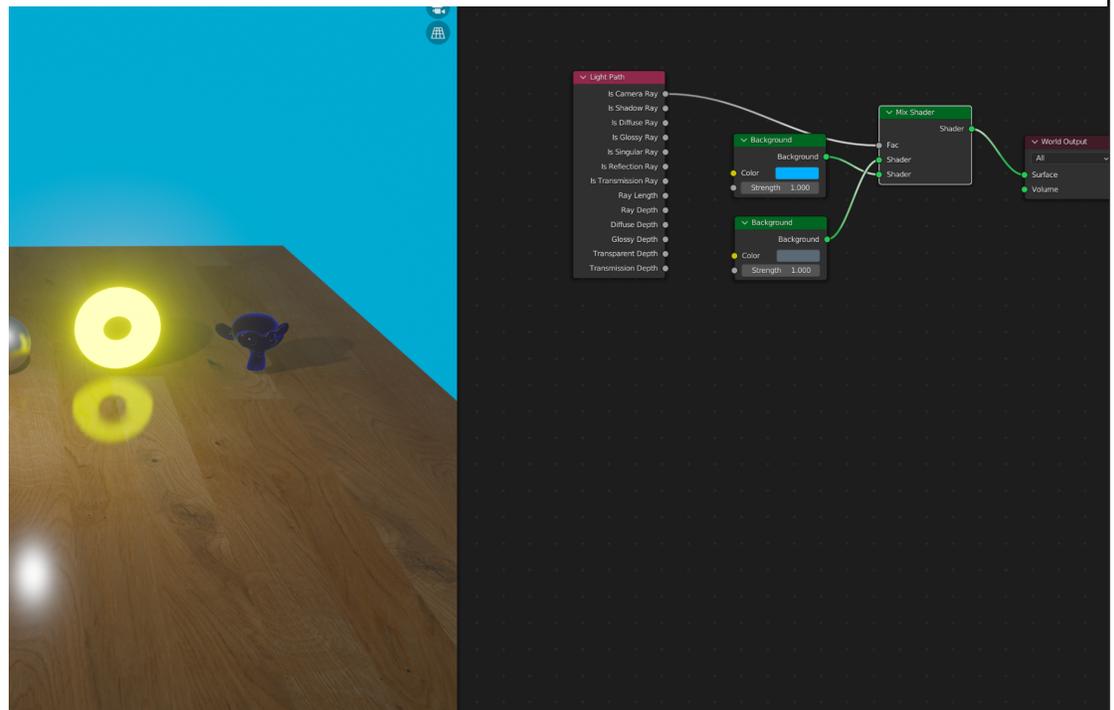
## Step 3:

Next go to the top, press 'Add'

Select 'Input'  
Select 'Light Path'

Connect the 'Is Camera Ray' to the 'Function' or input of the Mix Shader.

*Note: You may have to switch the Background Material Colours around on your Mix Shader to get your desired effect!*



## HOW TO ADD HDRI BACKGROUNDS

HDRI =  
High-Dynamic-Range  
Imaging

Similar to adding an Image Shader to an object, we'll do something very similar with our Environment.

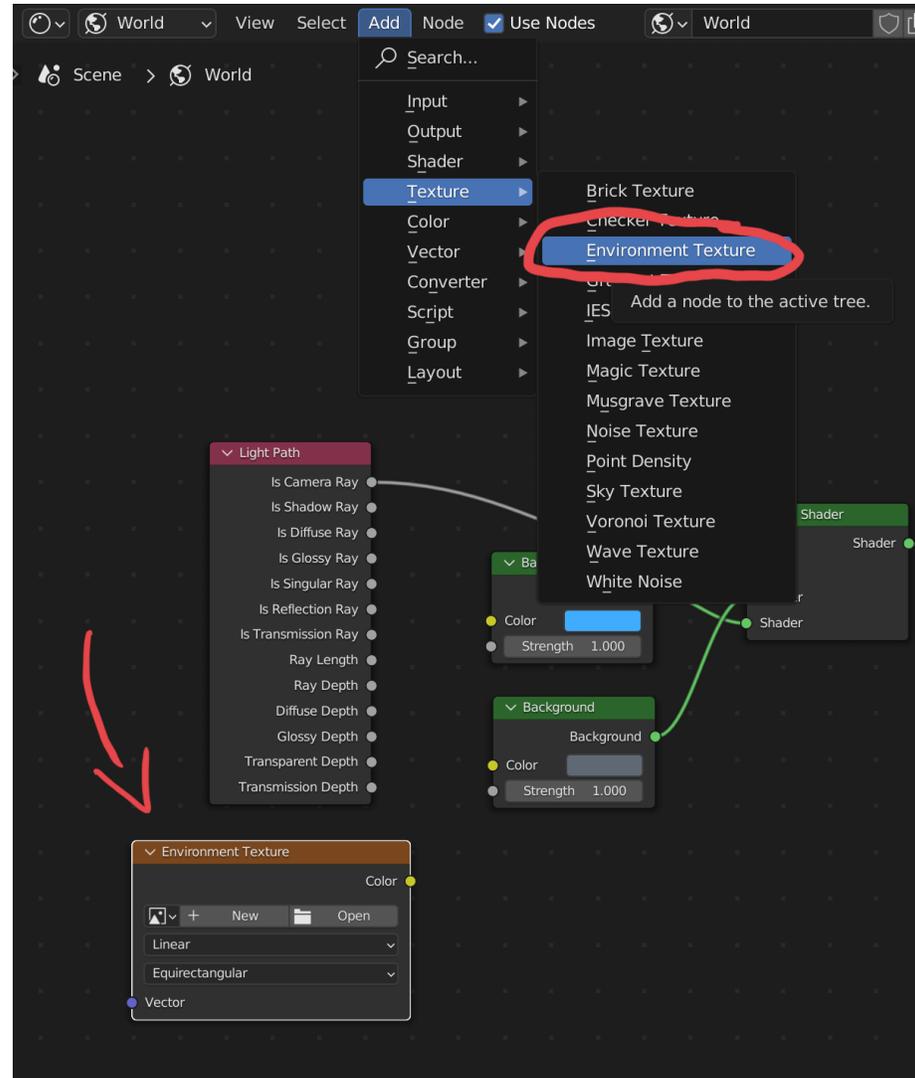
In this case, we will go to  
'Add' → 'Texture' →  
'Environment Texture'

Connect the Environment  
Texture to both your  
background nodes!

You can alter the strength of  
both the light, and the  
background by changing the  
'Strength' in the Background  
Nodes.

A great website for HDRI's  
is [Poly Haven!](https://polyhaven.com/)

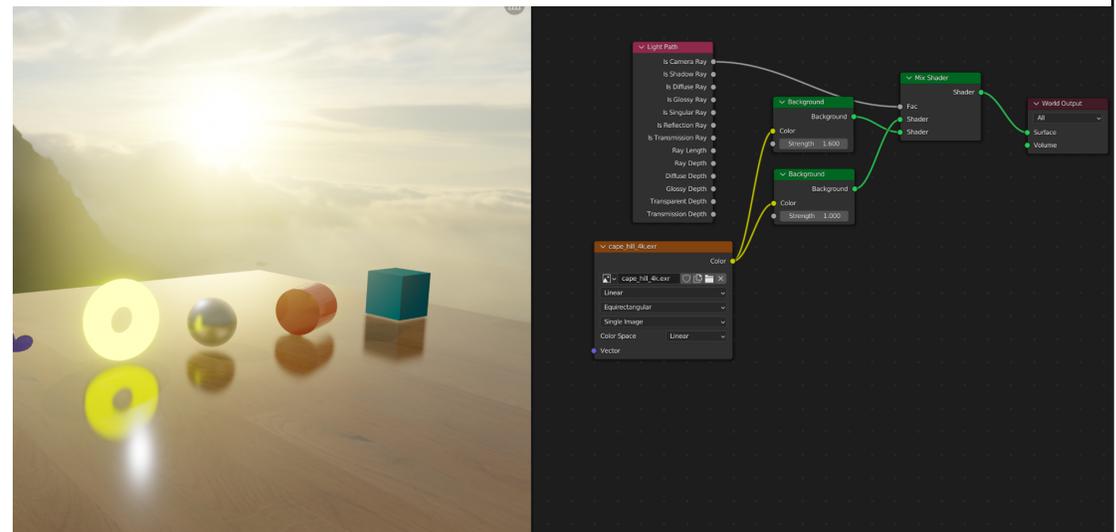
Find an HDRI you want to  
use. I found one called  
'Cape Hill' and downloaded  
the 4k version of it.



### Step 5:

Once you have the image  
downloaded and you  
remember where it is, you  
can go to 'Environment  
Texture' and press 'Open'.

Once that's open, find your  
file, and voila! It should  
show up!



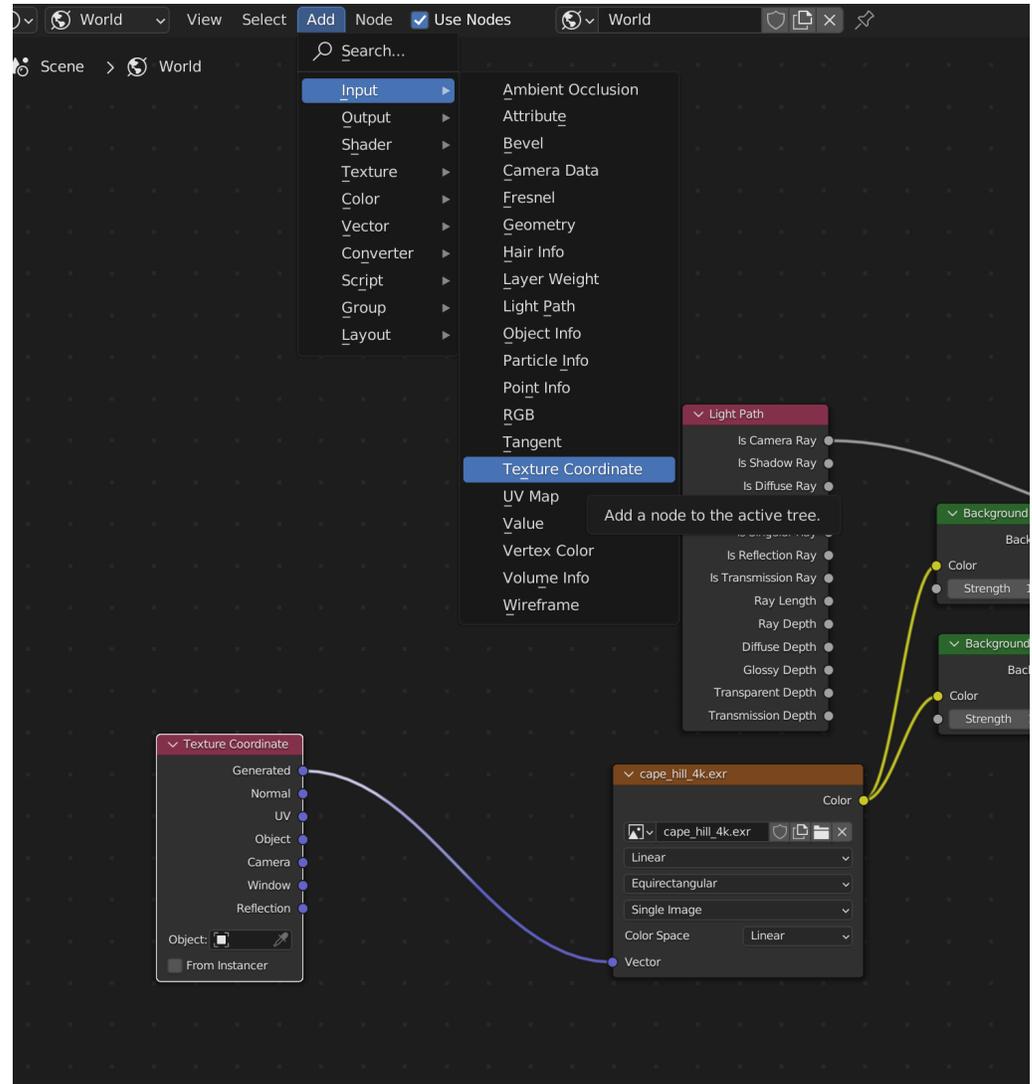
## Step 6 - To alter or rotate your HDRI

Sometimes a background needs to be changed! I want the sunset behind my objects when I'm facing them. So, how do I rotate it?

Well...

Add → Input → Texture Coordinate.

We will connect the 'Generated' vector node to the Environment Texture Vector Node (as pictured)

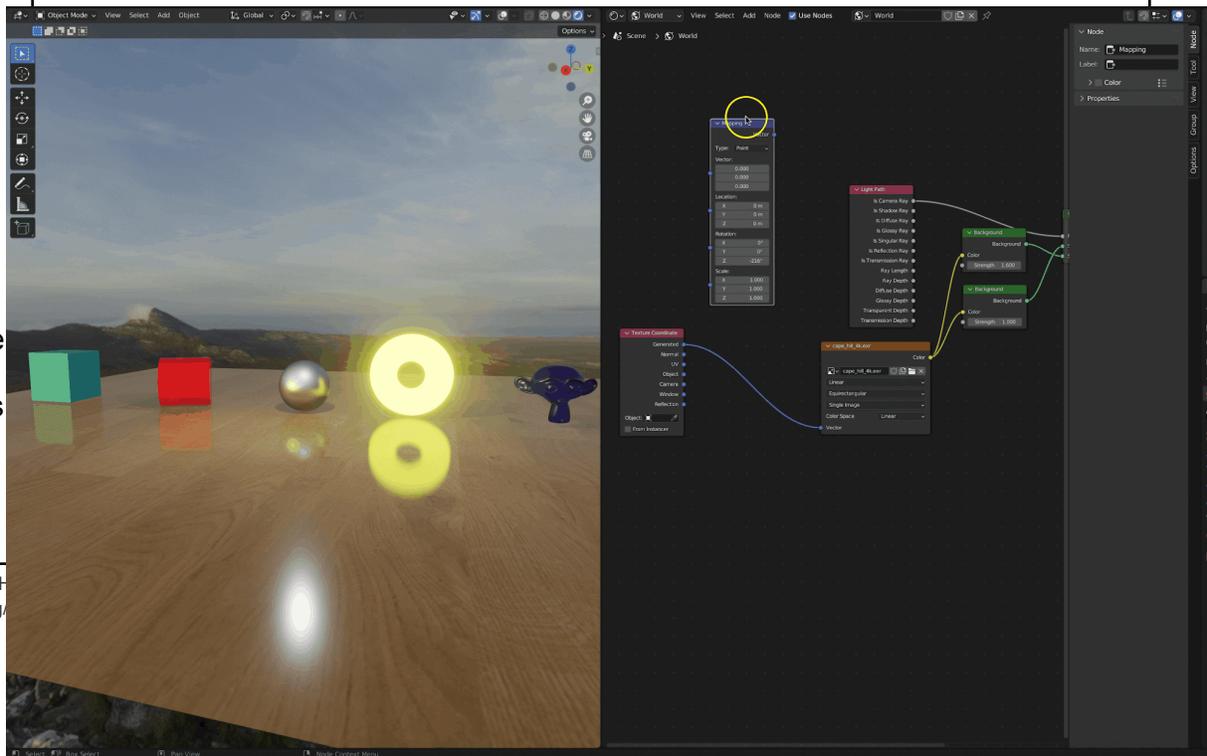


## Step 7:

Now that we have that, we need to actually tell the program how we can move it. We need to add a 'Mapping' vector.

Add → Vector → Mapping

Once we add that, we will place it right in between the Texture Coordinate and Environment Texture nodes and it should snap into place.



Once it's snapped into place, we're open and welcome to change the coordinates on the mapping node using the Rotation X,Y,Z coordinates!

**DON'T FORGET TO PACK YOUR RESOURCES AND SAVE YOUR BLENDER FILE!!!**