Blender Shaders Tutorial

Updated July 2022

Note:

Students should have completed the 'Materials Tutorial' before coming into the 'Shaders Tutorial'.

How to mix colours together

Step 1:

Students should have their Blender Project looking like the below image. Ensure your 'Cube' is selected!



Step 2:

Take your cursor to the very top right hand corner of your 3D Viewport, your cursor will change to look like a little '+'. Right Click the corner, you'll be presented with a Horizontal or Vertical Split. Choose Vertical split and and drag your mouse to the left of the screen until the line is about halfway across then click. Your screen should look like this below:



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Step 3:

In your second screen (the non-colourful, right screen) press the top left button, and change the viewport to 'Shader Editor'.



And you will soon have a screen that looks like this!



Step 4:

Don't worry! Don't be intimidated. When we're looking at this screen, all this is doing is allowing us to create (blend) or otherwise create fancier materials that otherwise couldn't be done without the use of a shader editor! So, what we'll do is we're going to blend two colours together to make a nasty colour for the cube.

Step 1:

Ensure the cube is selected.

Step 2:

Right click the 'Long List' (Which is actually just your Material Properties) and press 'Duplicate' and this will create the same list. Place the new list below your other one.



Step 3:

Press 'Add' at the top of your 'Shader Editor' screen. Select 'Shader', then 'Mix Shader'. Place the 'Mix Shader' between the right box, and your two lists.

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Step 4:

On your second duplicated list, change the colour from green to whatever colour of your choice. (Example: Blue)

Then using the green connectors on each list, connect them to the 'Mix Shader', followed by connecting the mix shader to the 'Material Output'. This will invariably mix both colours from both lists (or Material Properties) and output them as the combined colour.

Now you know!



How to mix in Textures!

Note:

For this, you can keep your mixed shader for your cube, but this time select the plane!



to be totally different between the blue and red colours.	
Step 2: Go up to 'Add'. Select 'Texture' Select 'Brick Texture'. Place it anywhere that is easily accessible.	Object View Select Add Node Use Nodes Slot 1 Material.006 Plane Plane.001 Search Input Plane Plan
Step 3: Connect the white 'FAC' or 'Output' line to the mix shader. And you'll find that your plane is now a blue and red brick texture! Within the 'Texture Node', you can change the width of the mortar or the brick size as well by clicking and dragging the 'Brick Width' or 'Mortar Size' or any of those variables. <i>Note: If you hold 'Shift' whilst dragging the</i> <i>variables in the brick</i> <i>texture, it will go slower</i> <i>for more control!</i>	

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Step 5:

Now, although we have our wooden floor. If we tried to export this, it wouldn't export with the wooden floor. We need to do the following!

Go to File on top right corner.

Click on 'External Data'

And then click on 'Pack Resources'.

This will take the external photo (In this case, the wood floor) and make it a part of our Blender file!

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