Right now we have a simple mushroom model. We need to paint it by giving it a texture.

To do this, we basically want to create a 2D image template to paint in an image editing program like Photoshop. This requires flattening the model. You can think of this a little like a clothing pattern – sew it together and you get the model.

Basically, we’re going to tell Blender how to cut up the model. So, when you do this you need to think a little bit about how you intend to paint it. In this case, I’d like to make a mushroom character with a simple face and spots on his head. The rest of the body can be simple.

Start this from edit mode.

We will be selecting edges in this tutorial, and we only want to select edges that are close to us. However, if you had rotated your view, you will see occluded edges through the model, and you will be permitted to select those edges that you shouldn’t normally see.

Since you don’t want to select edges that are on the other side of the model, you want to “occlude background geometry” by clicking its button under the 3D view pane.

Now we will make sure our model is well behaved. By default, Blender textures only one side of a face. For our model not to end up with see-through faces, we need to make sure the normal vectors of faces are correctly pointing outwards.

In the “Mesh Tools More” pane below, click “Draw Normals” and set the normal size to 0.5. You will see a blue line segment coming out of every face. Turn around your model to identify faces with normals that don’t point outwards.
If you have faces with normals pointing inwards, click on the face selection icon below to start selecting faces and select those faces with shift+right click.

Then, select Mesh > Normals > Flip from the menu below to flip their normals outside.

Note that your mushroom model has rectangles (quads) as faces. Unwrapping a model that only has triangles is less-error prone, so we will convert our model to have triangles instead. Press ‘a’ to select the whole model, select “Mesh > Faces > Convert Quads to Triangles” from the menu below.

Now we are ready to unwrap our model.

We’re going to start by marking the seams that blender should cut on. To do that, we need to be able to select edges rather than vertices.

Select the edge button to switch to edge selection mode.

Now I can start selecting edges on my model.

Because I want to make a face, I’m going to start by marking a seam around where the eyes will be. Right click on an edge to select it. Holding down shift will allow you to select all of the edges for a particular seam.
Press “CTRL e” to bring up the edge menu and select “Mark Seam”.

Once you’ve marked the seam, it should turn orange.
For this model, you can mark the top of the head and a line down the back as the seams.

Next, we’re going to split Blender’s window so that we can see both the model and the flattened version (UV map) at the same time.

At the border between the top toolbar and the scene view, right click and choose “Split Area”.

Then position the mouse in the middle of the screen and click.

Now the screen should look something like this.
Click the combo box below the right view of the scene and select “UV/Image Editor”.

The right side should look like this now.
On the left side, press “a” to select the mushroom model.

Press “U” to bring up the unwrapping menu and select “Unwrap”
On the right side of the screen, you should see the UVmap for your model.

I’d like to be able to paint the eyes with more detail than the rest of the model, so I’m going to make that part bigger.

Press a to deselect all of the vertices. And then right click and shift-right click to select just the vertices that correspond to the eyes.
Press “s” to scale (resize) the eyes.

And “g” to grab the eyes’ vertices and move them so that they don’t overlap with anything else.

Now, we want to export an image to paint in a photoshop-like program.

Below the UVmap view click on “UVs”, select “Scripts” and “Save UV Face Layout”.

This will bring up a menu of options. The most relevant at the moment is size. For performance reasons, smaller and in powers of two is arguably the way to go.

Click ok.

At the bottom of the screen, Blender will open a file browser. Use this to navigate to where you want to save the file (.tga) and name it.
The resulting file should look something like this...

Go ahead and open this up in Photoshop or another image editor and paint away.

Here is how I painted my texture image. Note that the black lines are there just to guide you. Your image will be cut and folded along the locations of those lines and stretched on to your model.
By default, Blender won’t display objects on the scene with their textures. In order to see the texture when we add it, set draw type to “textured” below the 3D view pane.

Now let’s load our texture to Blender. Make sure your model is selected in edit mode and you can see it unfolded in the UV/Image editor. In the UV/Image editor, select Image > Open from the menu below, and choose the image you just painted. You’ll see it superimposed with the unfolded model, and you’ll also see it on your model!

However, if you render your scene, you’ll still see a gray mushroom. We will fix this in the following steps.

Now, let’s make blender use this image as a texture for the mushroom’s material. Click on the button with the circle to switch to the shading panel.

In the shading panel, click on the Add New button under “Links and Pipeline”
Your bottom panel should now looks something like this...

While your mushroom is selected, click on “TexFace” in the material pane.

If you click on the “Render” menu above the scene and select “Render Current Frame” to see how the model looks with the texture.

This was the easy way to apply the texture. Another way is by adding a texture to the material. That way you can apply multiple layers of textures and add effects on them. For more information about this, feel free to ask us or view the tutorials in Blender.org.