



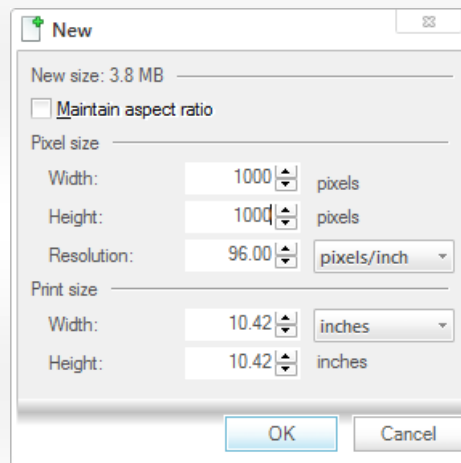
## Planets

## Lighting

**Lighting is the thing that gives planets life – and the pinnacle to realism.**

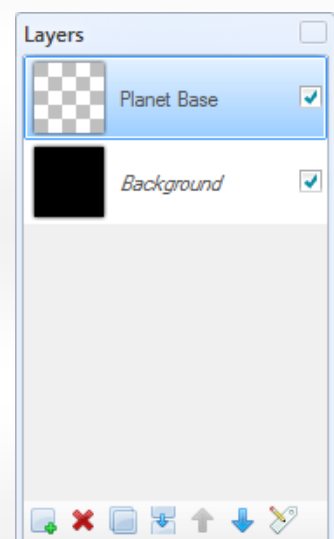
**We'll start with a simple document.**

**Open Paint.Net and make a new document, 1000x1000 should suit right.**



**Select the Paint Bucket Tool [F] and fill the canvas with black.**

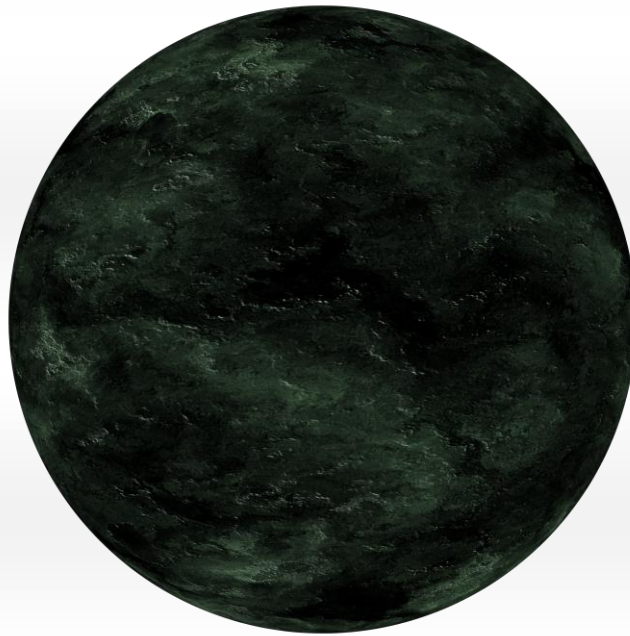
**Make a new layer and name this "Planet Base".**



**This is the layer where we'll put out main planet on.**

**Sift through the "Stock" folder and find a planet base you like. If you want to create your own, you can find a good tutorial for that [here](#).**

**After you've selected the planet you like, or finished the texture, it's time to apply shading. I've selected this one:**



**Copy it over to your main document and resize so it just fits.**

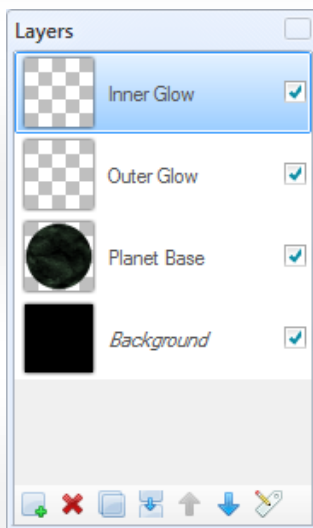
**Now it's time to pick a direction for your light source. You can pick practically anywhere but I am choosing the top-right corner, so my light would be coming from this direction:**



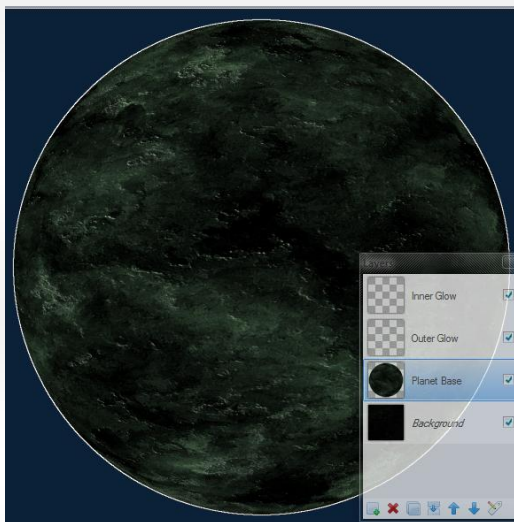
So, taking that into consideration, you'd have a shadow on the bottom-left. I am making the intensity medium for the tutorial's purposes but you can make it whatever you want.

Create two new layers and call the top one "Inner Glow" and the bottom one "Outer Glow".

Your layer list should currently look like this:



Now select the Magic Wand Tool [Shift + S], select your planet layer and click on the area outside of your planet.



**Chose a colour, and keep it a low saturation.**

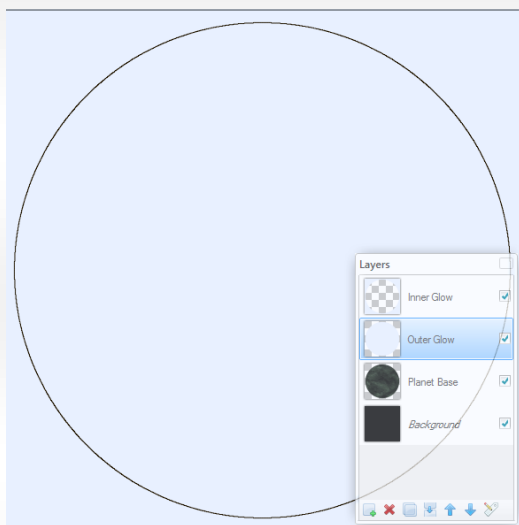
**Here's a list of ideal colours, just copy and paste the Hex code (removing the hash):**

**#E8F0FF**                < - A pale blue

**# FFF8E8**                < - A pale yellow

**# FFE8E8**                < - A pale red/pink

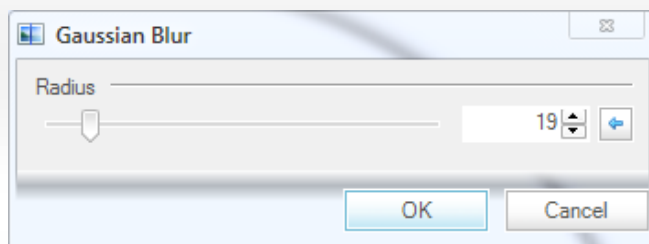
**Once you've picked your colour, select the "Inner Glow" layer and fill the selected area; then select the "Outer Glow" layer, invert selection [Ctrl + I] and fill the new selection.**



**Now Deselect [Enter].**

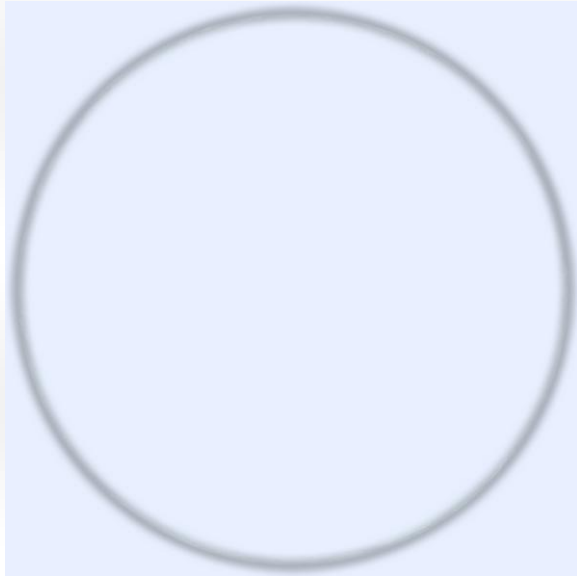
**Select the "Inner Glow" layer again and apply a Gaussian Blur.**

**Amount:        Around 50 works.**



**You'll get what looks like a shadow around the planet.**

**Press OK, select the "Outer Glow" layer and apply the blur again [Ctrl + F].**

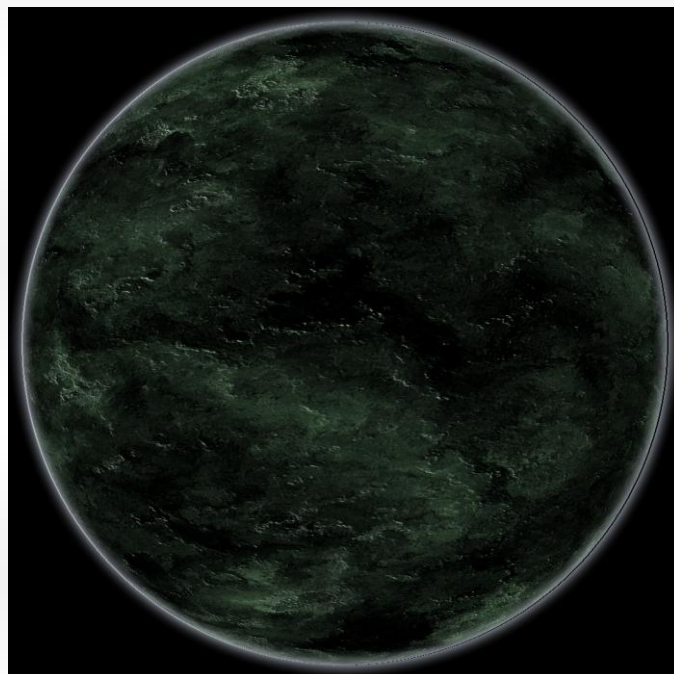


**Now select your "Planet Base" layer again, select the Magic Wand Tool [Ctrl + Shift + S] and select the region outside of your planet again. (You can hide the 2 glow layers if that makes it easier.)**

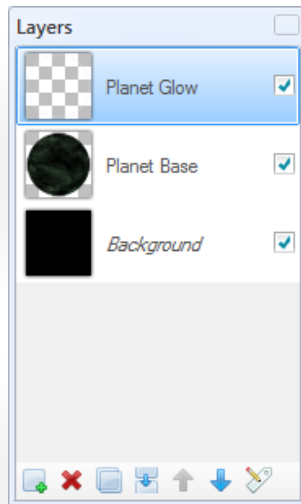
**Select the "Inner Glow" layer and press Delete.**

**Do the 'Select planet – Magic Wand Tool – select outer region' step again, select the "Outer Glow" layer, invert selection [Ctrl + I] and press delete.**

**You will have this:**



Select the “Inner Glow” layer and merge down. Call this newly merged layer “Planet Glow”.

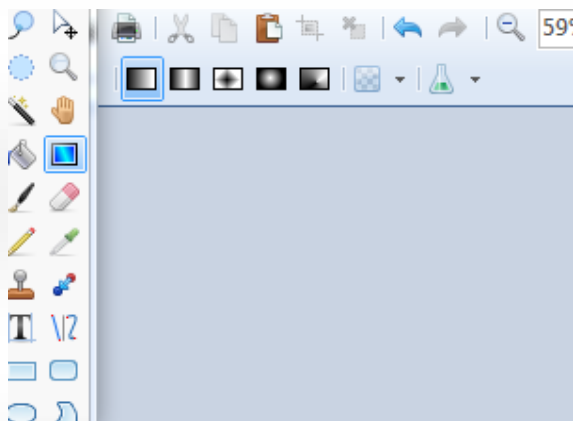


Change the “Planet Glow” layer’s blend-mode to ‘Additive’.

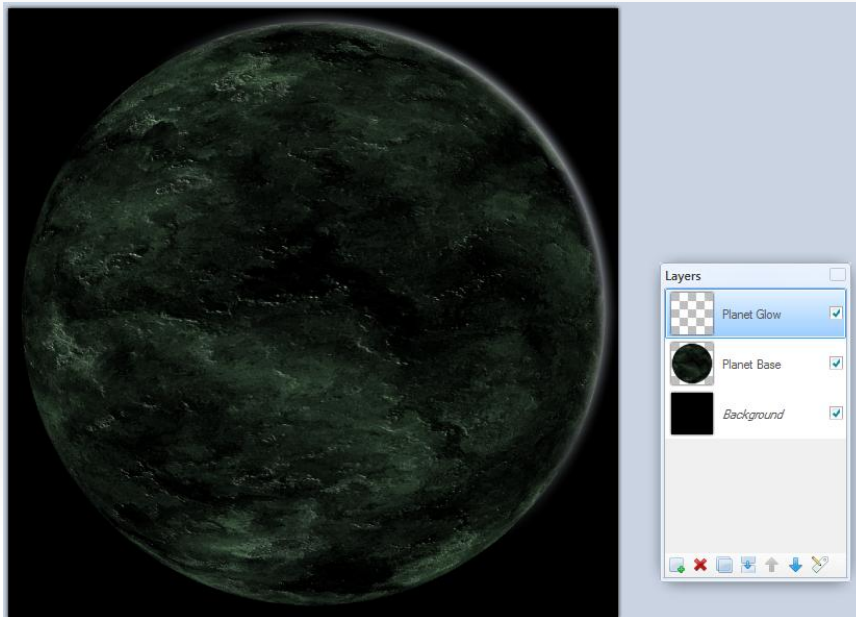
Now is the tricky bit, you need to make the glow fade into a curve-like structure around the planet.

Select the Gradient Tool [G] and make sure it’s on ‘Linear Gradient’ and chose a ‘Transparent Gradient’. Make sure the “Planet Glow” layer is selected.

The tool bar should look like this:

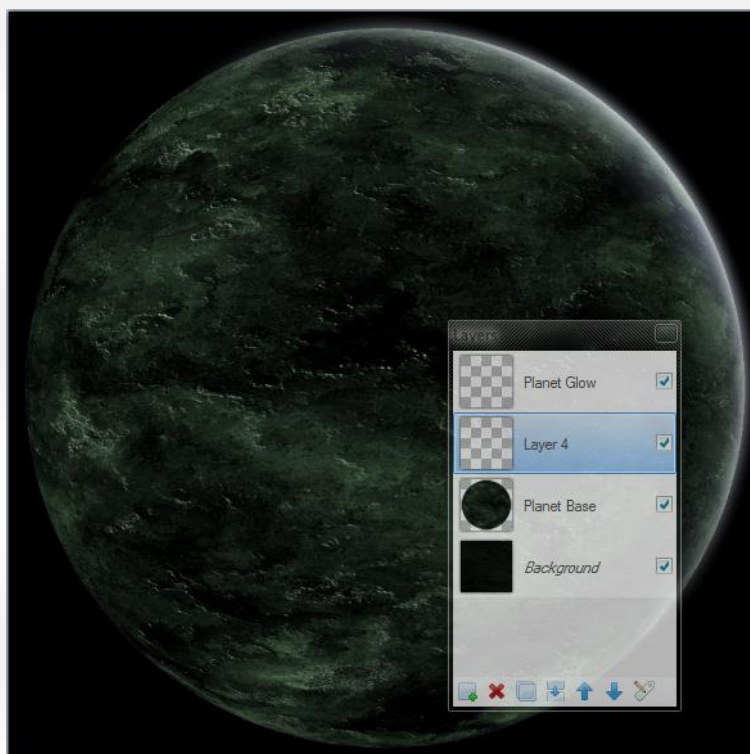


**Now, with the Gradient Tool still selected, select the direction from where the light is coming from and drag directly opposite, the further you drag, the higher intensity of light.**



**That will do for now.**

**What you can do is create another “Inner Glow” layer, chose a more saturated colour and repeat the previous process with a greater blur. Apply the same level gradient and make the layer’s blend mode to “Additive”. You’ll get something like this (it’s entirely optional, but highly recommended):**



**Merge the glows again.**

**Now, we will do the lighting effects on the opposite side of the planet.**

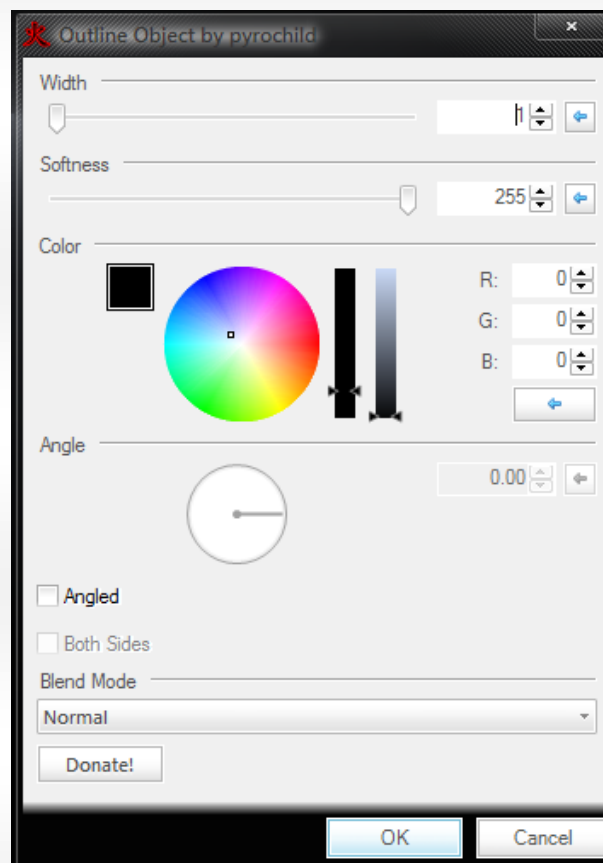
**I usually do this step first, but just for simplicity we'll do it now.**

**Duplicate the "Player Base" layer.**

**Open up Hue and Saturation [Ctrl + Shift + U] and make Lightness '0'.**

**The planet should be completely black.**

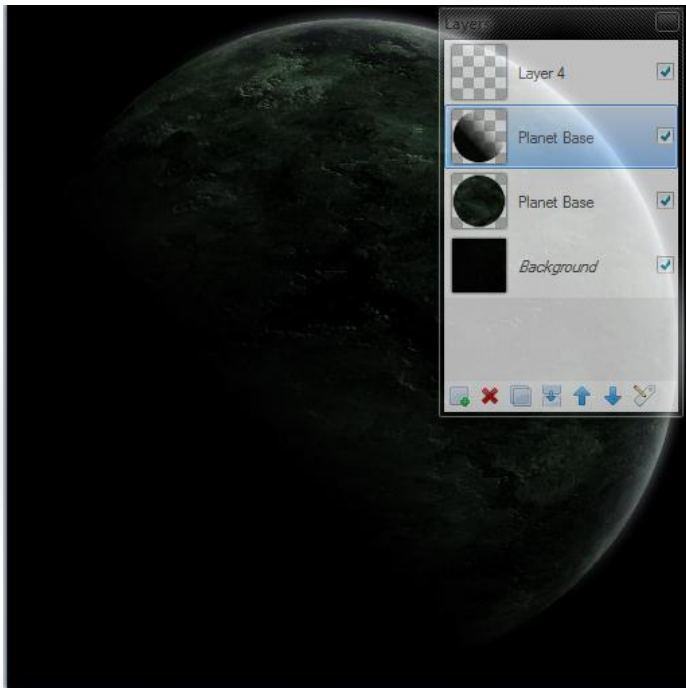
**Just to be sure, open up Outline Object by pyrochild [ *Needs to be downloaded* ] and copy these settings:**



**Press "OK".**



Now, with the black layer still selected, chose the Gradient Tool [G] again and create a gradient on the planet in the opposite direction to the lighting.



Now adjust the opacity of that layer to your liking, I picked 'Opacity: 211' as I like dramatic lighting.

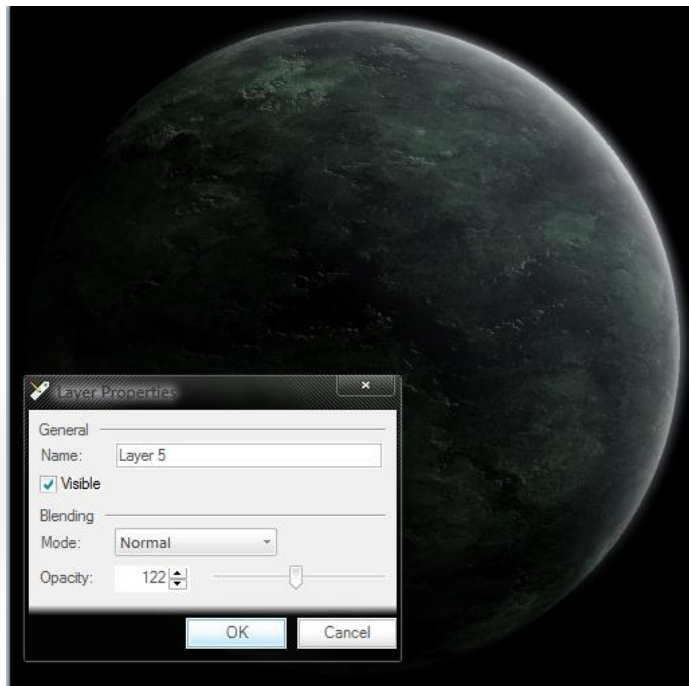
Rename that layer to "Planet Base Black".

Now there's 1 more step we can do to make the planet really come alive.

Select the "Planet Base" layer, Magic Wand Tool [Shift+S], create a new layer above the "Planet Base Black" but below the "Planet Glow" Layer and fill the selection with a different-saturated version of your original colour.

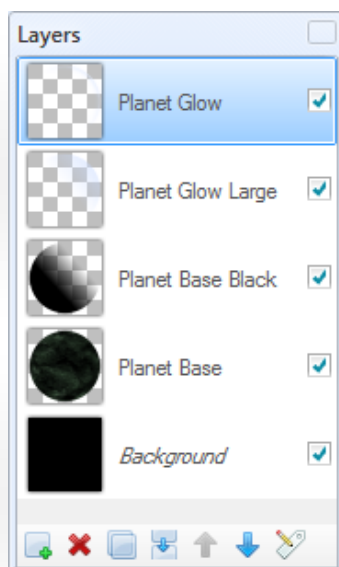
Select the Gradient Tool [G] and drag for the same distance as your original lighting. Without selecting anything else, grab the other toggle for the gradient and drag it the opposite way. Alter the opacity to your liking.

**I ended up with this:**



**Name this layer "Planet Glow Large".**

**Your final layer list should look similar to this:**



**I hope this tutorial has been helpful, and I will see you in the next one.**