Using Blender - Topics - Environment Techniques, Advanced

**Sphere as Environment**

* Add a Sphere (UVSphere or Icosphere) mesh
* Scale the sphere so it is big enough to contain your whole scene inside of it (tip: put the mouse near the orange dot in the middle of the sphere before you press ‘s’—then you’ll have more room to move mouse & faster scale)
* Under the Material button tab, click New if there is not yet a material
* In the Material (checkered sphere) button tab, check the "**Shadeless**" checkbox so that the sphere doesn't receive lighting or shadows
* Under the Texture (checkered square) button tab, for “Type:” choose “Image or Movie”.
* In the “Image” section there is an “Open” button. Click that open button & choose the background you want.
* In the “Mapping” section, for “Projection:” choose **Sphere**

To use your environment Sphere as an image-based light:

* Delete all lights (or hide them in a different layer) for the most accuracy (to make the image appear to belong in the background).
* Select the sphere.
* Uncheck “Shadeless” in the Material (checkered sphere) button tab.
* In the Texture button tab, make sure both **Color** and **Emit** are checked (these checkboxes are in the Mapping section in the Texture [checkered square] button tab).
* In the World button tab, check “**Indirect Lighting**” then click **Approximate** for Gather

To improve quality:

* Increase repetitions: you can increase **Size** to 12 or so (**only repeat on x for a horizon**, repeat on both for a solid material such as a sky or outer space photo without a horizon) This has the same effect as increasing "Repeat" x and y in the Image Mapping section.
* Make sure your texture is seemless. Whether or not you repeat it, the image will be wrapped around & meet the opposite edge. To make it seemless, you can use the free program sTile. Download sTile, install it, open your image, then click Image, Seemless, 4-way Edge Merge, 1/8.

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| TIP: IF your texture has a horizon, you’ll have to paste part of the bottom back where it added the blend to sky. In if you need that (but you usually don’t): you would have to manually fix this issue of having part of the ground in the sky & part of the sky below the ground. IF you’re edges are not looking very even, you can fix that in Photoshop® or GIMP using the clone tool (to work on that edge, first paste 2 copies of the image, on top of the original, then move one layer halfway to the left then another halfway to the right, then Flatten all layers. That will allow you to work on the edge without making a seem when you use the clone tool). |

Other issues:

* In the Object Data tab, make sure “Double-sided” is checked (It should already be by default)