Cube Mapping

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Cube Map Texture Lookup

Texture Coords = (s,t,p)

- Let \( L \) be the texture coordinate with the largest magnitude
- \( L \) determines which of the 6 textures is being hit by the vector
- The texture coordinates in that texture are \( \frac{s}{L}, \frac{t}{L}, \frac{p}{L} \)

ReflectVector = reflect( eyeDir, normal );

RefractVector = refract( eyeDir, normal, Eta );
Cube Map of the World

Creating a Globe from the World Cubemap
(some shapes map better than others...)
Cube Map of Nvidia’s Lobby

http://www.codemonsters.de/html/textures_cubemaps.html

Showing the Cube and its Seams