

# Simplifying Assumptions

In much of what follows, we will make the simplifying assumptions that:

- There is only one source of light
- That light is just a point-source

This will make our work a lot more straight-forward

(We'll think about more complex lighting later on)

# 3 Types of Light !

It is "convenient" to consider 3 types of light:

- Diffuse: Direct illumination of the surface
- Ambient: All around, background light level
- Specular: Mirrored reflection of the light source

ThreeTypesOfLight

This concept (3 types) is not borne out by reality  
But it does give us some plausible looking results !

# Diffuse Light

To calculate the illumination effect of a light on a surface, we must consider:

- The distance of the surface from light
- The angle of light onto the surface

Let's look at each of these in turn...