

.....

# BEGINNING METAL

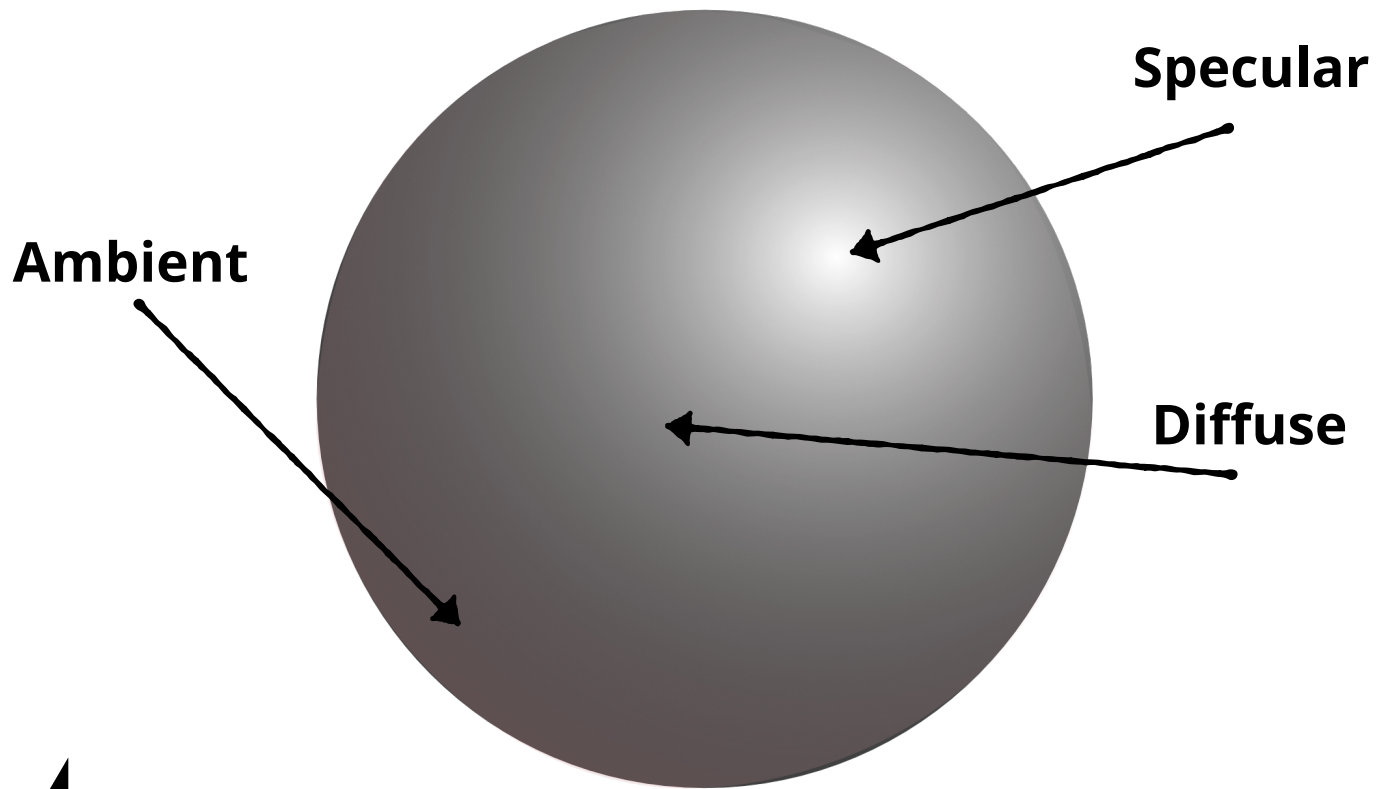
.....



## PART 11: AMBIENT LIGHTING



# PHONG SHADING



# AMBIENT LIGHTING

⚙️ Fragment color: (r, g, b, a) per pixel

□ white: (1, 1, 1)

■ green: (0, 0.4, 0.21)

⚙️ ambient intensity: 0.2

■ ambient color: (0, 0.08, 0.04)

■ white \* ambient = (0, 0.08, 0.04)



# AMBIENT LIGHTING

```
fragment half4 lit_textured_fragment(VertexOut vertexIn [[ stage_in ]],
                                     texture2d<float> texture [[ texture(0) ]],
                                     constant Light &light [[buffer(3)]],
                                     sampler sampler2d [[sampler(0)])] {
    float4 color = texture.sample(sampler2d, vertexIn.textureCoordinates);
    float3 ambientColor = light.color * light.ambientIntensity;
    color = color * float4(ambientColor, 1);
    return half4(color.r, color.g, color.b, 1);
}
```



# DEMO

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# CHALLENGE TIME!

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