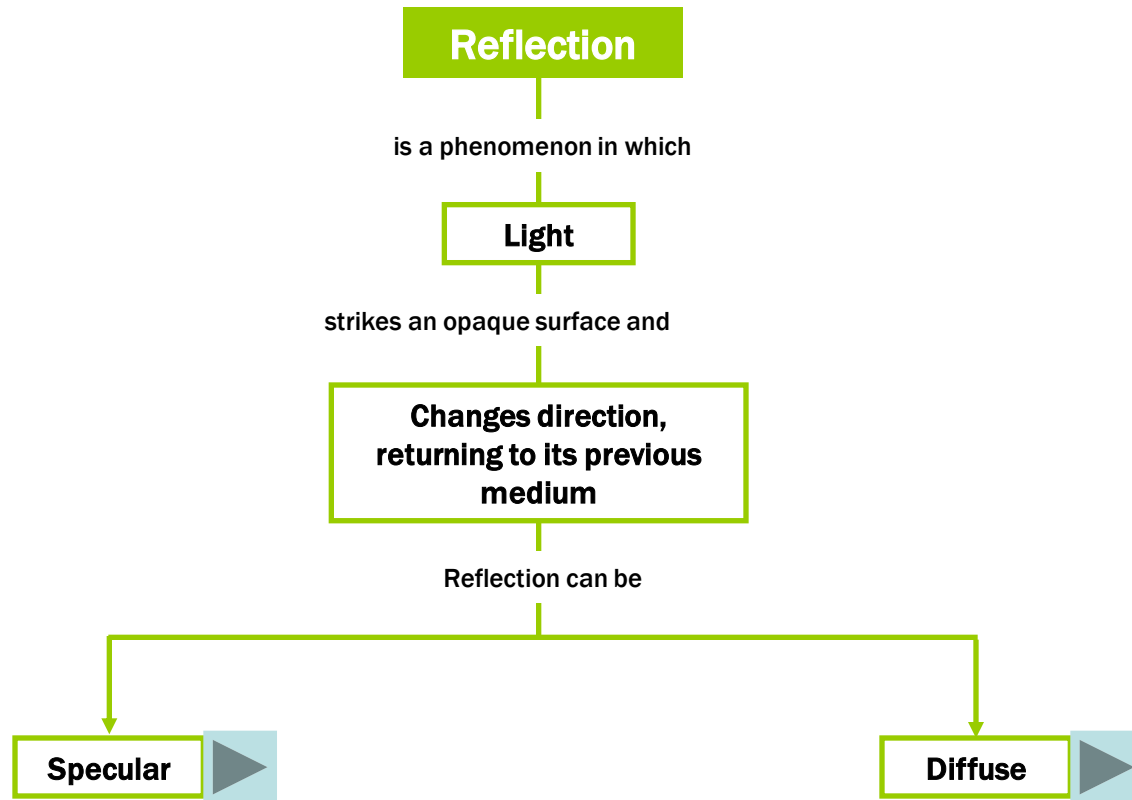


Mirrors and diffuse reflection

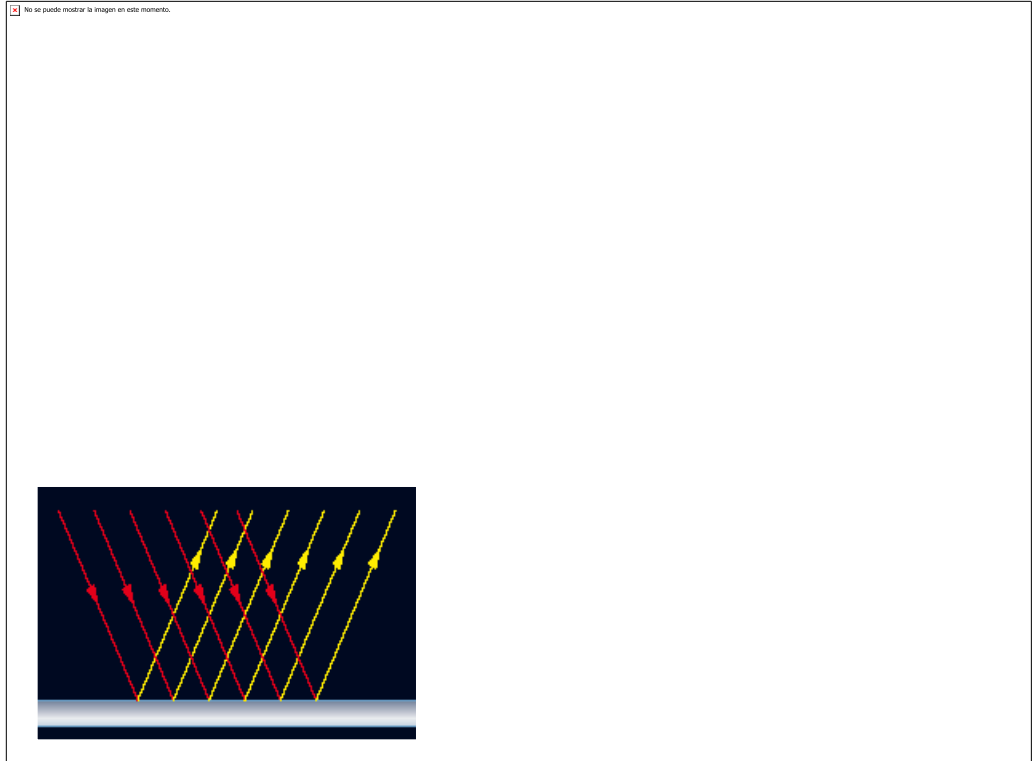


Mirrors and diffuse reflection

Specular reflection

Specular reflection occurs when light strikes a perfectly polished surface.

In this case, parallel rays of light are reflected back from the surface, producing images of objects that are exactly the same as the original objects (except they are symmetrically inverted). These are called mirror images.

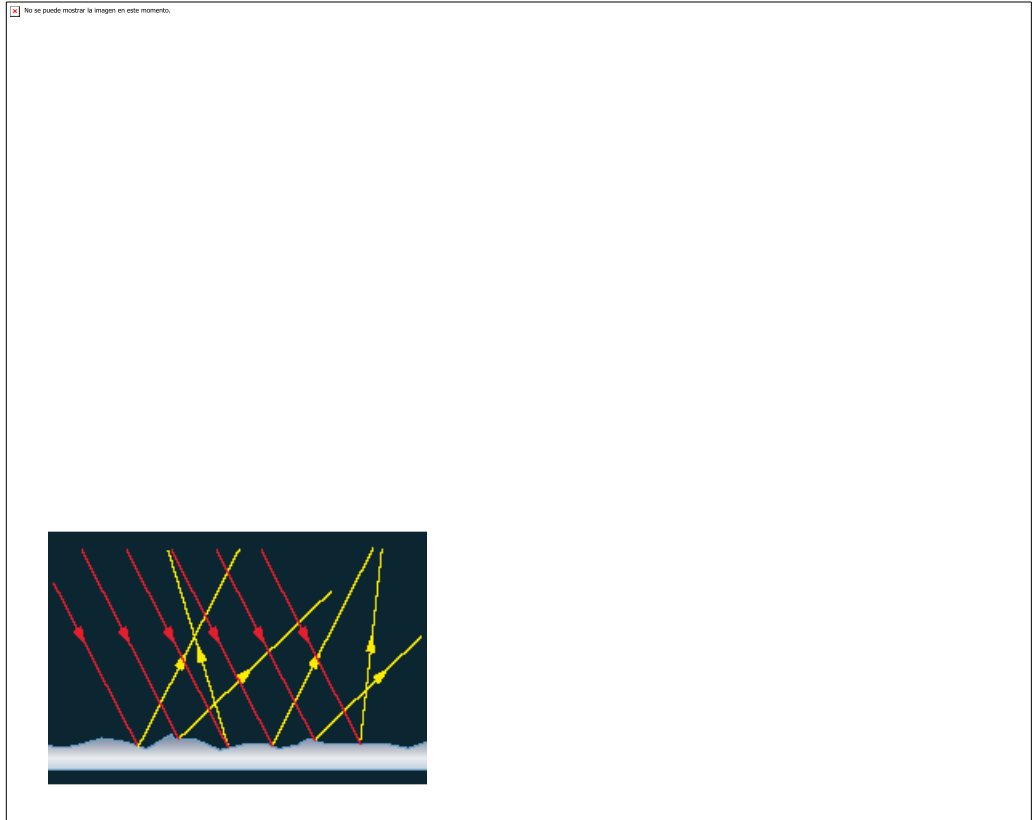


Mirrors and diffuse reflection

Diffuse reflection

Diffuse reflection occurs when light strikes a surface that is not smooth, but rough.

In this case, all of the rays of light follow the laws of reflection, but since the surface is irregular, the rays are reflected in different directions, producing distorted images.



Mirrors and diffuse reflection

Activities

1. What type of reflection occurs in a bathroom mirror that has steamed up from a hot shower?
2. Why can you see clouds reflected on the surface of a calm lake but not on the surface of the ocean?
3. Which of the objects on your desk exhibit specular reflection and which exhibit diffuse reflection?
4. What are some applications of specular reflection? What about diffuse reflection? Give a few examples.