What to expect: Reflections and Mirrors

During this week we consider light traveling in straight lines as rays and bouncing off objects.
The area of physics that considers light traveling in straight lines is called Geometrical Optics, since we can use rules of Geometry to predict what happens to a light ray.

Geometrical optics is useful as long as the objects with the light ray hits are much larger than the wavelength of the light. In geometrical optics light does not “bend around corners”, and it does not reveal either its wave or quantum character.

When light rays hit a dense material, like your sun umbrella, it does not penetrate and you enjoy the shadow of you umbrella.

When a light ray hits a smooth and shiny surface like a mirror, it reflected like a ball that bounces off a wall.

During this week you will study the reflection of light from mirrors together with the equation that governs it. This will allow you to predict, what image you will see in a mirror and what properties this image may have. This becomes especially interesting when the mirror is not flat but curved, like e.g. the inside of a spoon.