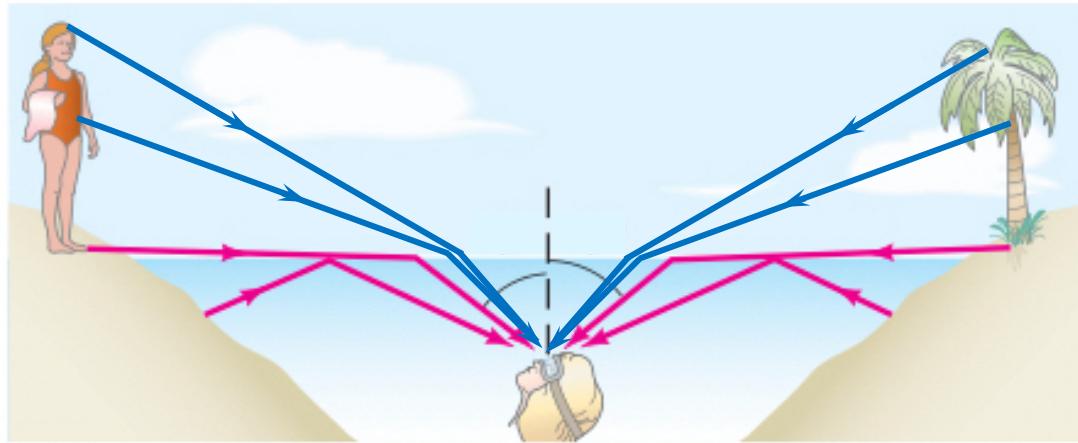
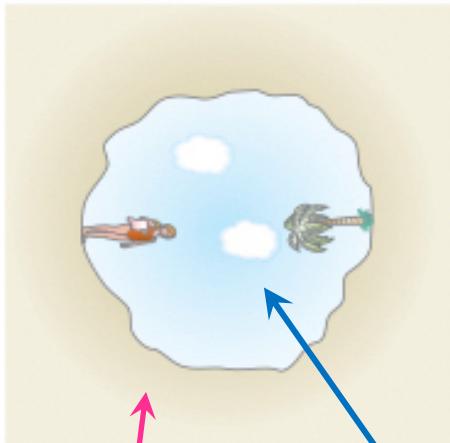


View from under water: Refraction and total internal reflection



Here the light rays coming from above the water's surface change direction (refraction). The person under water perceives the surroundings outside the water lifted up and compressed into a small circle.

Here the light rays coming from the sides of the lake are completely reflected off the water's surface back into the water (total internal reflection). The person under water sees a reflection of the sides of the lake.

Bild: Giancoli, Physics