

about magnifiers

A basic magnifier consists of a convex lens that is mounted in a frame and handle to magnify an object. Lenses have been widely used in the Mediterranean region and Middle East over several millennia

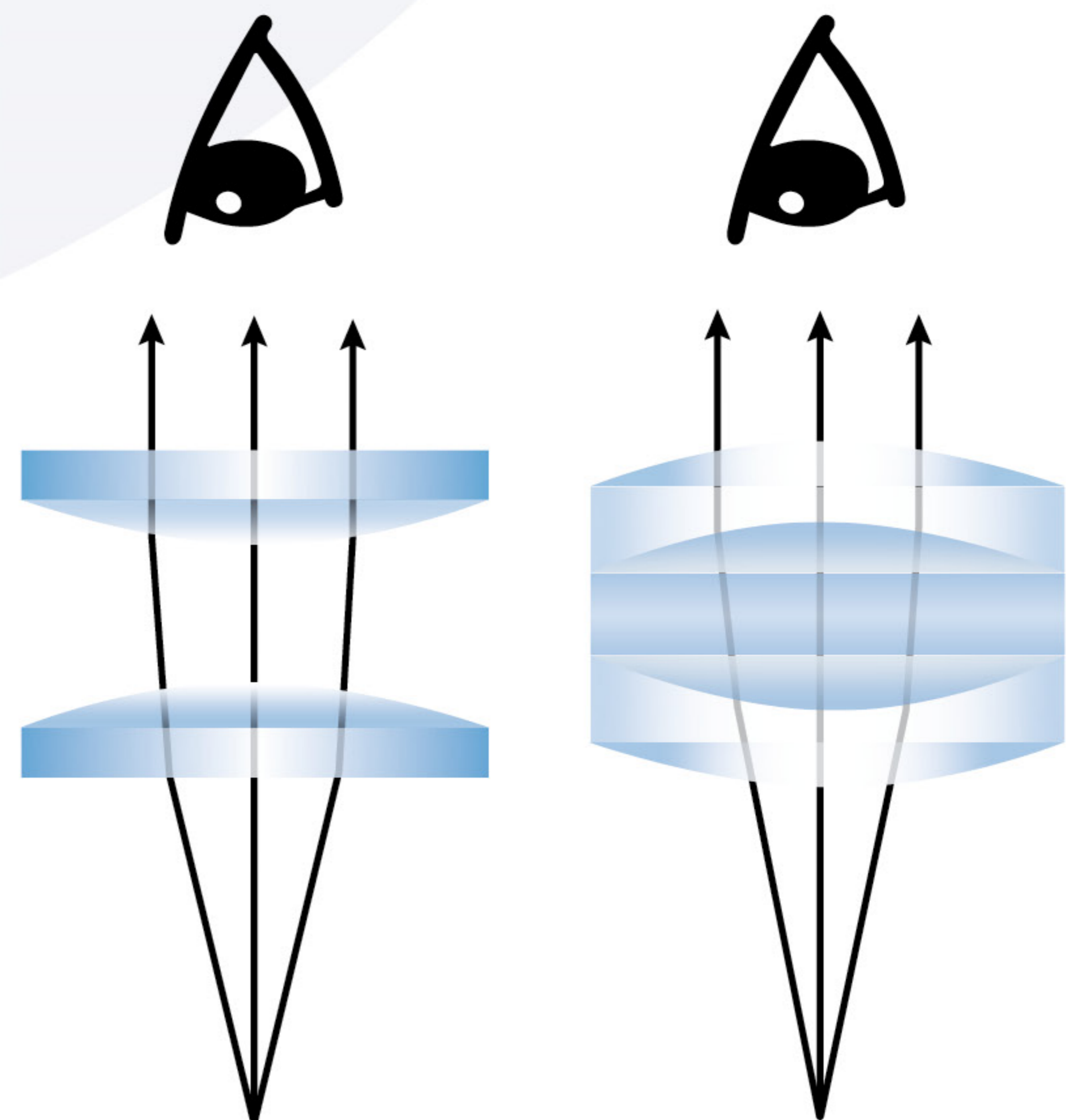


Basic magnifying glasses have low magnifications from 2 to 6 times. The magnification of such a basic magnifier depends upon the position between the user's eye, the object being viewed and the total distance between them

At higher magnifications, the image quality decreases rapidly due to important spherical aberration

Doublet and triplet magnifiers with multiple lenses enable higher magnifications from 10 to 30 times. These are often mounted in a cylindrical holder with no handle (often called a "loupe").

Such magnifiers have very small apertures and they must be placed close to both the object and the eye



● doublet

● triplet

Other types of loupes are designed to be put on the table or sample, without or with micrometer scales in order to perform quick measurements

For magnification beyond 30 times, a stereomicroscope must be used