



## Flat optical bench, with leveling shoes, double beam

EQ241

### Function

Intended for experimental study, physics laboratory and carrying out physics experiments on: Natural sciences. Light and optics. Light, the properties of rectilinear propagation and independence of rays. The light. Transparent, translucent, opaque, homogeneous and isotropic to light media. The principles of geometric optics. The reflection of light in a plane mirror and the laws of reflection. Reflection, regular and irregular reflection of light. The plane mirror. The angles of incidence and reflection. The laws of reflection. The angle of rotation of the reflected ray. An application with multiple reflections between plane mirrors. Reflection in concave and convex spherical mirrors. The refraction of light and its laws, the diopters. The incident ray and the refracted ray. The angle of incidence and the angle of refraction. The refraction of light when passing from a less dense medium to a more dense one. The critical angle, limiting angle of refraction and total reflection. Brewster angle. Brewsters Law. Spherical lenses and their main characteristics. Vision defects, correction of ametropia, hyperopia and myopia, with lenses. Some refractive errors that the human eye can present, vision defects. Refraction in a 90-degree optical prism. Light and the electromagnetic spectrum. What is an optical prism. The colors of the spectrum of polychromatic light, white light, etc.

### Knowledge areas

Physics - Math & Science Fundamentals

### Key Experiments

The principles of geometrical optics

The reflection of light in a plane mirror and the laws of reflection

An application of multiple reflections between flat mirrors

The reflection in concave and convex spherical mirrors

The refraction of light and the laws of refraction

The spherical lenses and its main characteristics

Vision defects, correction of hyperopia and myopia with lenses

The refraction in a 90 degree optical prism

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