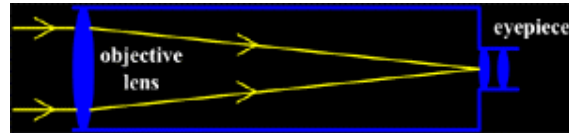


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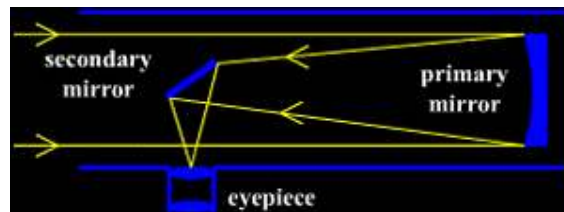
Which Telescope?

Refractors



Refractors are what most people think of when they think of telescopes - light enters through an objective lens at one end and comes out of an eyepiece at the other. They are generally used for lunar and planetary work, and since they provide an upright image they are suitable for terrestrial observing. The tube is sealed and the objective lens is permanently set and aligned. Their simplicity of design makes them easy to use and maintain.

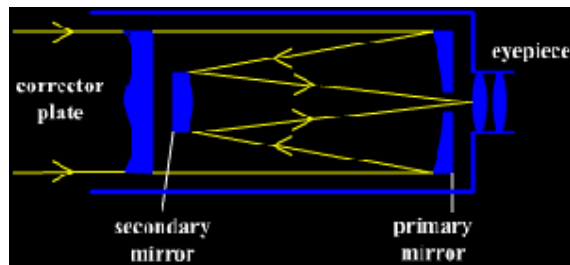
Reflectors



The Newtonian reflector uses a concave primary mirror at the end of the tube which directs light back up to a secondary mirror and then on to the eyepiece. A Newtonian is usually cheaper to buy, inch for inch of aperture, than the other main telescope designs. Newtonians are good all-round workhorse telescopes suitable for all types of astronomical viewing and astrophotography.

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Schmidt-Cassegrain



Schmidt-Cassegrains and Maksutov-Cassegrains are known as Catadioptric Telescopes. They use a combination of mirrors and lenses that make for very compact instruments. Catadioptric telescopes generally come on motor driven mounts and are often computer controlled. With superb quality optics, Schmidt-Cassegrains are extremely versatile visual and photographic instruments with the benefit of compact size and ease of use. Maksutovs are highly regarded as high definition and contrast planetary telescopes giving the very best images and are very compact and easy to use.

Which?

There is no single best choice telescope. Each type of telescope is different and can't be compared except to one of a similar design. Some experts say go for the largest aperture you can afford as, generally, aperture is the most significant factor of a telescope - not magnification as a lot of cheap telescope advertising blurbs would have you believe. A good telescope can usually handle about 50X magnification per inch of aperture. The cheap department store telescopes that make claims such as 500X from a 2" telescope are a waste of time and money. The view through one may indeed be 500X but it would be of nothing identifiable. Other experts say buy the telescope that you are likely to use the most. In other words don't buy something so heavy or complicated that setting it up in the first place is a major undertaking. Another factor to consider is the type of mounting you want. An equatorial mount, though more time-consuming to set up than an alt-az, is much more versatile. It allows you to observe objects more easily for longer spells or to take photographs of a longer duration. One axis of the mount is lined up parallel to the earth's axis so that you may follow the East to West passage of any object with a single movement. With the addition of a motor, or motors, you can view hands free for almost unlimited lengths of time. Another thing to remember is that you don't have to buy everything all in one go. You can buy telescopes that can be upgraded as your interest develops.