Telescope Buying Checklist

Print this page and tick items off before you buy. From Telescope Trove.

Budget and aperture

- Set your budget first: at $500, an 8-inch Dobsonian gives the most aperture for the money
- Remember aperture is the most important specification: an 8-inch gathers 4 times more light than a 4-inch
- Look for build quality above $300: metal focusers, steady mounts, quality glass optics

Mount choice

- Choose Dobsonian if you want maximum aperture and to learn the sky by star-hopping, with no power needed
- Choose GoTo if you want automatic finding and tracking, and accept less aperture for the same price

Test before you buy

- Point at a bright star and focus to the smallest point, look for clean, symmetric diffraction rings
- Tap the tube while looking through the eyepiece: vibration under 2 seconds is a good mount, over 4 seconds is unstable
- Slew the mount from object to object: it should move smoothly and hold position when you let go

Accessories to add later

- 2-inch wide-field eyepiece (30-35mm) for star clusters and nebulae
- High-quality Plossl eyepiece (6-10mm) for sharp planetary views
- Moon filter ($15-20) for comfortable lunar viewing

- Collimation tool (laser or Cheshire) for reflectors, aligns mirrors in under 5 minutes
- Dew shield or dew heater for humid nights

First nights

- Set up indoors first and read the entire manual
- Start with the Moon as your first target
- Cool down 20-30 minutes before observing
- Keep an observing log: date, time, target, seeing, what you saw