Telescopes have made dramatic revelations about the Universe and our place in it. Galileo’s observations of the Moon’s cratered surface and discovery of Jupiter’s four big satellites profoundly altered the perception of the heavens. Over the past century, the rapid development of computer technology and sophisticated materials has allowed enormous strides in telescope construction. Modern telescopes range from large Earth-based optical telescopes and radio arrays linking up across continents, to space-based telescopes capturing the Universe in infrared, ultraviolet, X-rays, and gamma rays. Telescopes: A Very Short Introduction describes the basic physics of telescopes, the challenges of overcoming turbulence and distortion from the Earth’s atmosphere, the special techniques used in space telescopes, and looks towards the new generation of telescopes.