

### **Time**

**Day** - time between successive risings or settings of the Sun or a star

**Month** - time for the Moon to go through its phases or move around the sky once

**Year** - time for the seasons to repeat or for the Sun to move around the sky once

Note: Each of these time definitions is actually for two distinct periods.

### **Motion**

**Daily motion** - motion of celestial objects relative to the horizon

**Annual motion** - motion of the Sun, Moon, and planets relative to the stars

**Direct motion** - the usual annual motion from west to east

**Retrograde motion** - annual motion east to west

### **Celestial positions**

**North celestial pole** - the point in the northern sky about which all stars revolve

**Celestial equator** - a curve through all the stars in the sky which rise exactly in the east and set exactly in the west

**Ecliptic** - the path of the Sun's annual motion through the stars

**Summer solstice** - the location of the Sun on the ecliptic on the longest day of the year

**Winter solstice** - the location of the Sun on the shortest day of the year

**Equinox** - the location of the Sun when it rises exactly in the east and sets exactly in the west - where the ecliptic crosses the celestial equator

### **Stars**

**Circumpolar stars** - the stars which are always above the horizon and never set

**Heliacal rising** - the first visible rising of a star after it has disappeared behind the Sun

**Constellations** - arbitrary groupings of stars

**Zodiac** - the band of stars along the ecliptic through which the planets move

### **Planets**

**Conjunction** - when a planet is closest to the Sun

**Opposition** - when a planet is opposite to the Sun in the sky

**Inferior planets** - the planets which stay close to the Sun

**Superior planets** - the planets which can be at opposition

**Synodic period** - the period between successive oppositions, conjunctions, etc.

### **Finally ...**

**Precession** - the slow motion of the NCP and celestial equator with respect to the ecliptic and stars