Position of Celestial Objects

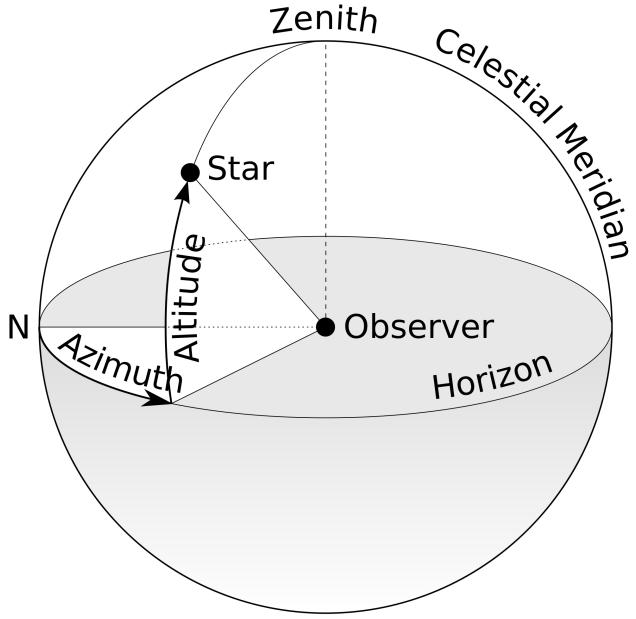
To accurately describe the location of an object in the night sky requires two measurements: altitude and azimuth (see diagram to the right).

The **altitude**, or elevation, of an object is the vertical angle between the object and the horizon. It is expressed as an angle between 0 and 90 degrees.

An object that is located on the horizon would have an altitude of 0 degrees. An object that is directly overhead is said to be at the **zenith**, and would have an altitude of 90 degrees.

The **azimuth** is the compass bearing of the object, expressed as an angle measured clockwise from north.

According to the standard definition of azimuth, north is 0 degrees, east is 90 degrees, south is 180 degrees, and west is 270 degrees.



The diagram to the right illustrates the concepts of altitude and azimuth.

The azimuth of a celestial object can be determined using a compass. The altitude of a celestial object can be determined using an object called an **astrolabe**.