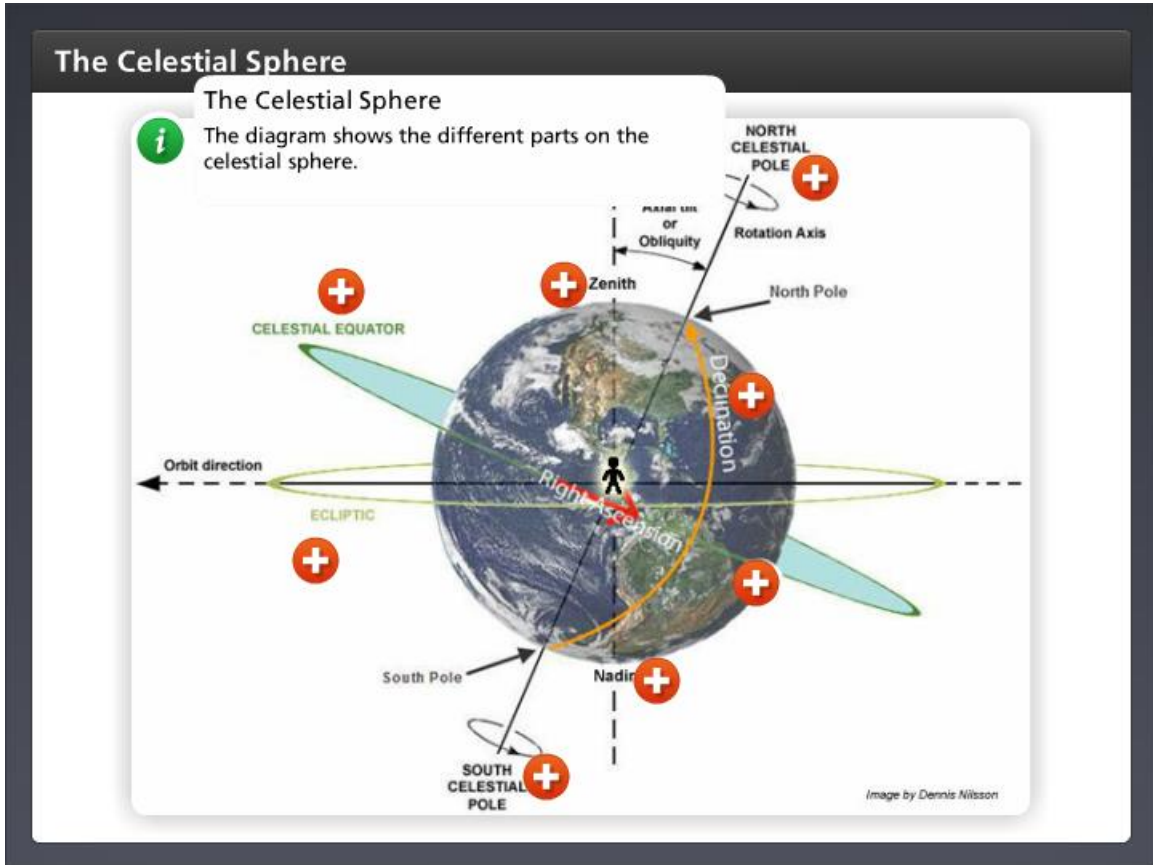


Module 2: Constellations

Topic 1 Content: The Celestial Sphere

The Celestial Sphere

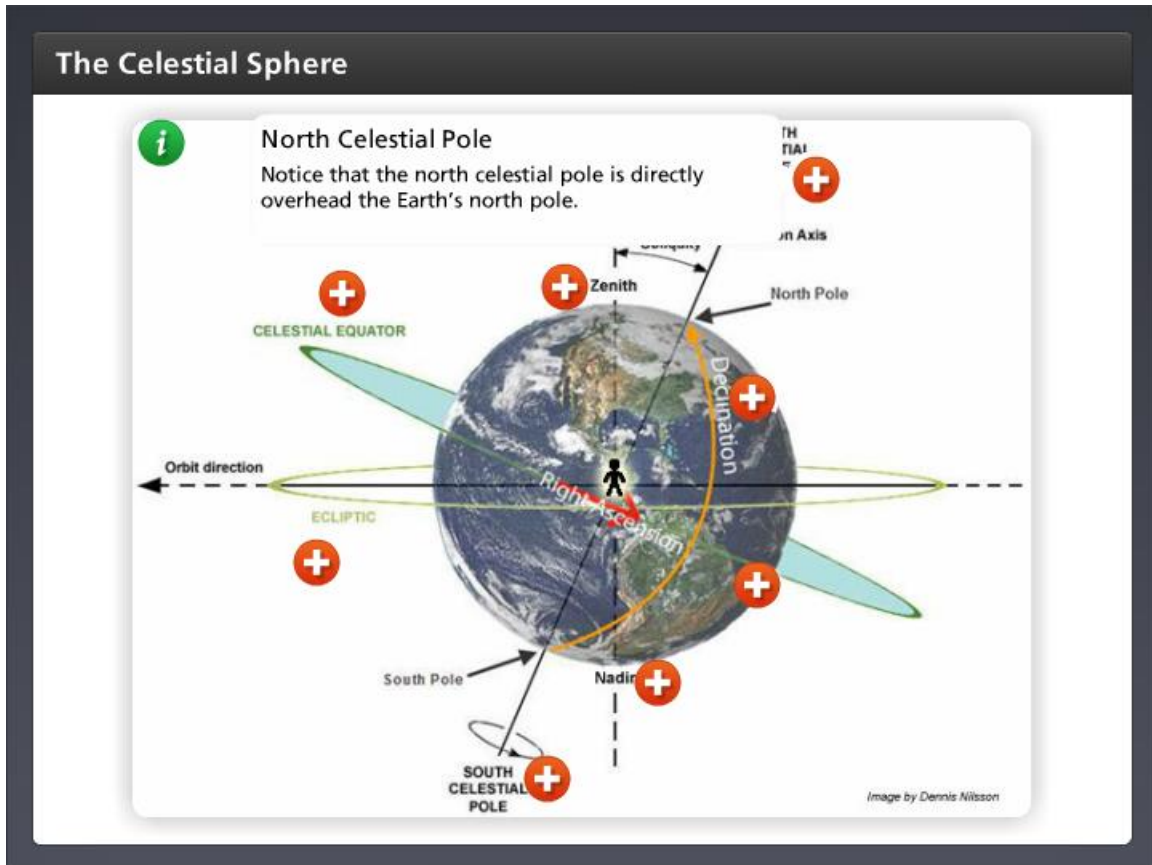


The diagram shows the different parts on the celestial sphere.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

North Celestial Pole

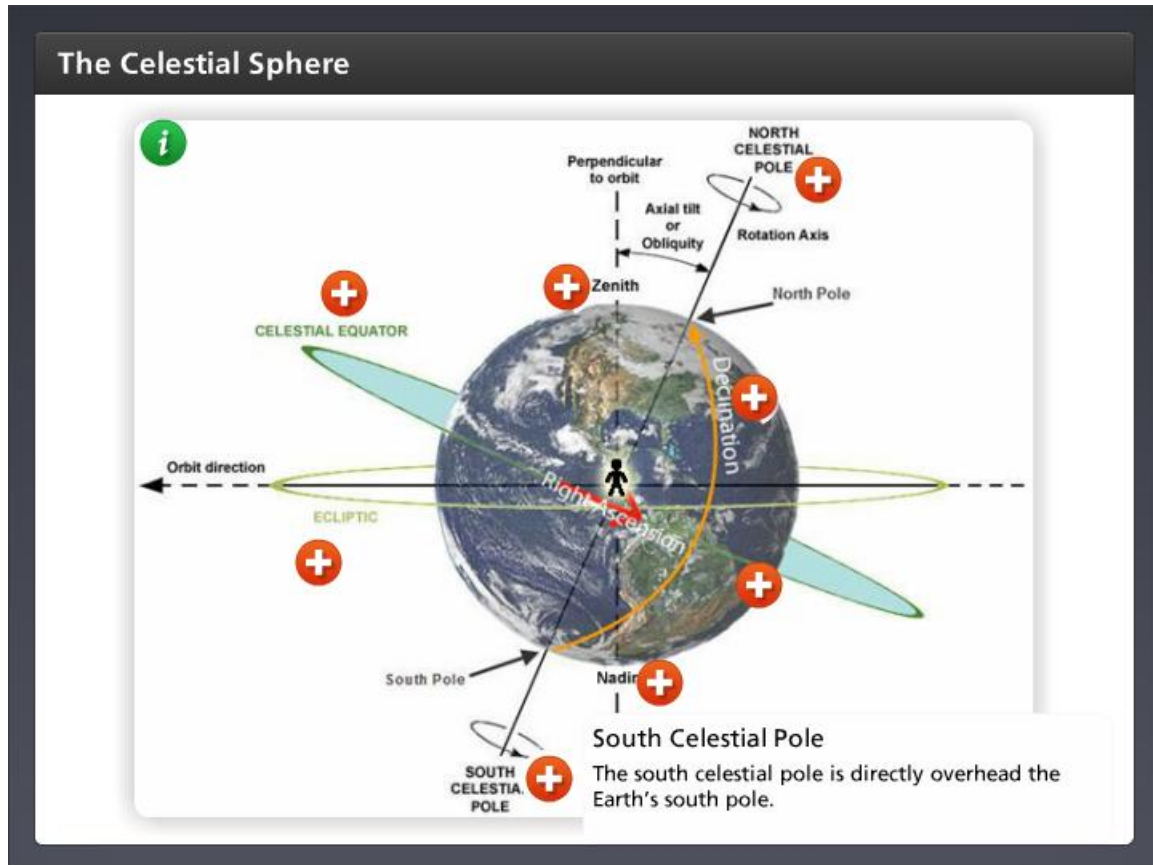


Notice that the north celestial pole is directly overhead the Earth's north pole.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

South Celestial Pole

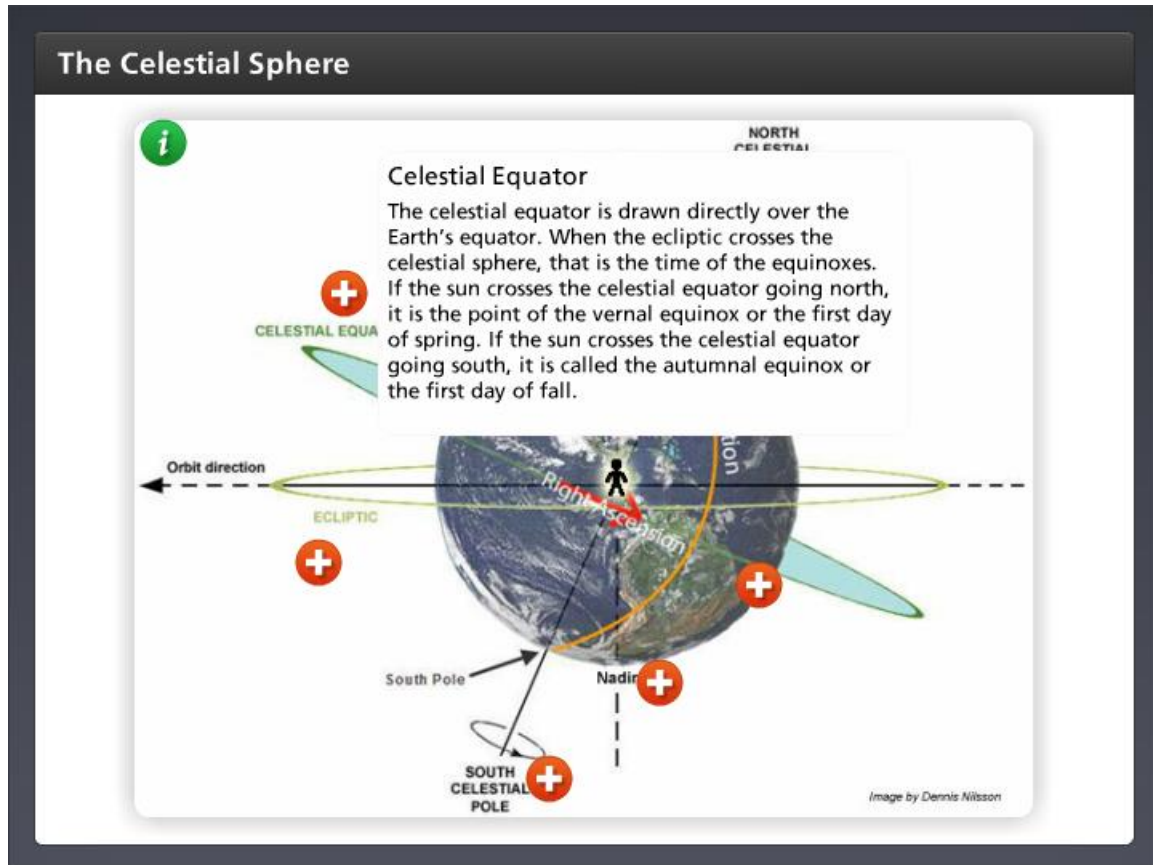


The south celestial pole is directly overhead the Earth's south pole.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

Celestial Equator

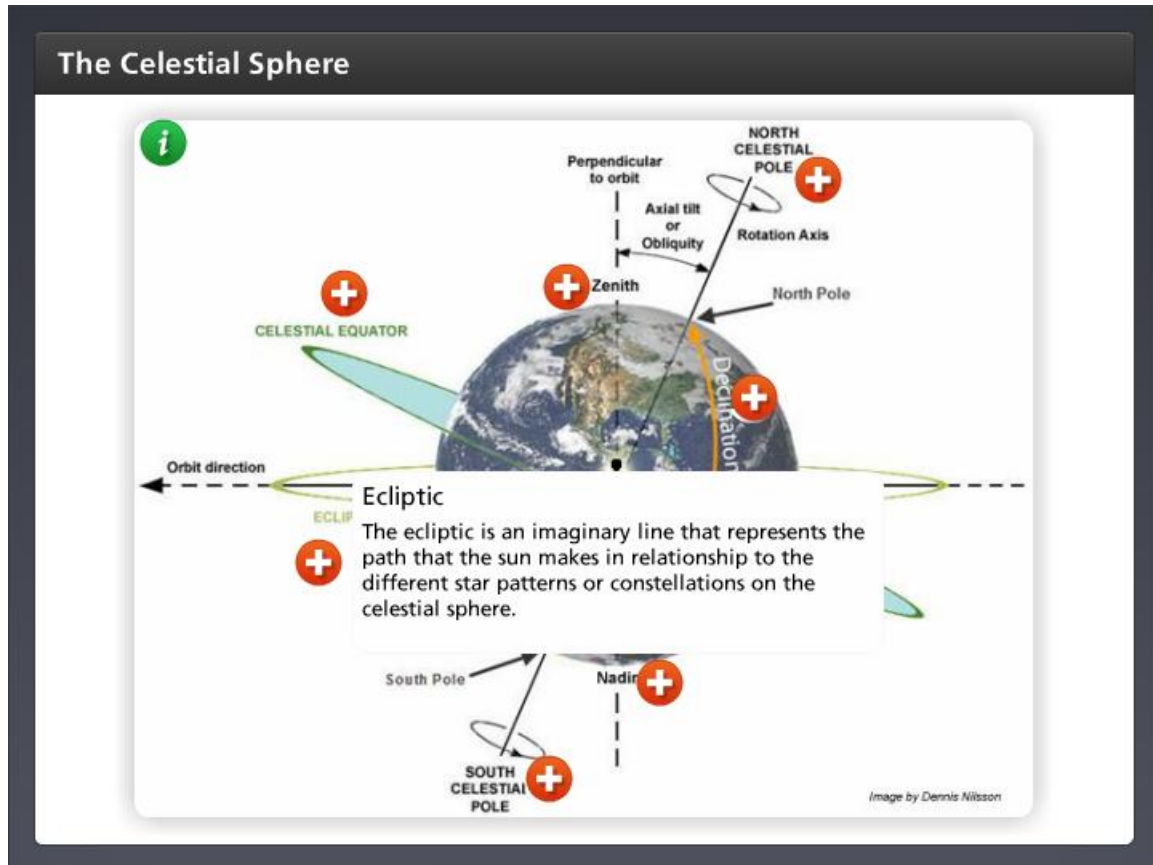


The celestial equator is drawn directly over the Earth's equator. When the ecliptic crosses the celestial sphere, that is the time of the equinoxes. If the sun crosses the celestial equator going north, it is the point of the vernal equinox or the first day of spring. If the sun crosses the celestial equator going south, it is called the autumnal equinox or the first day of fall.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

Ecliptic

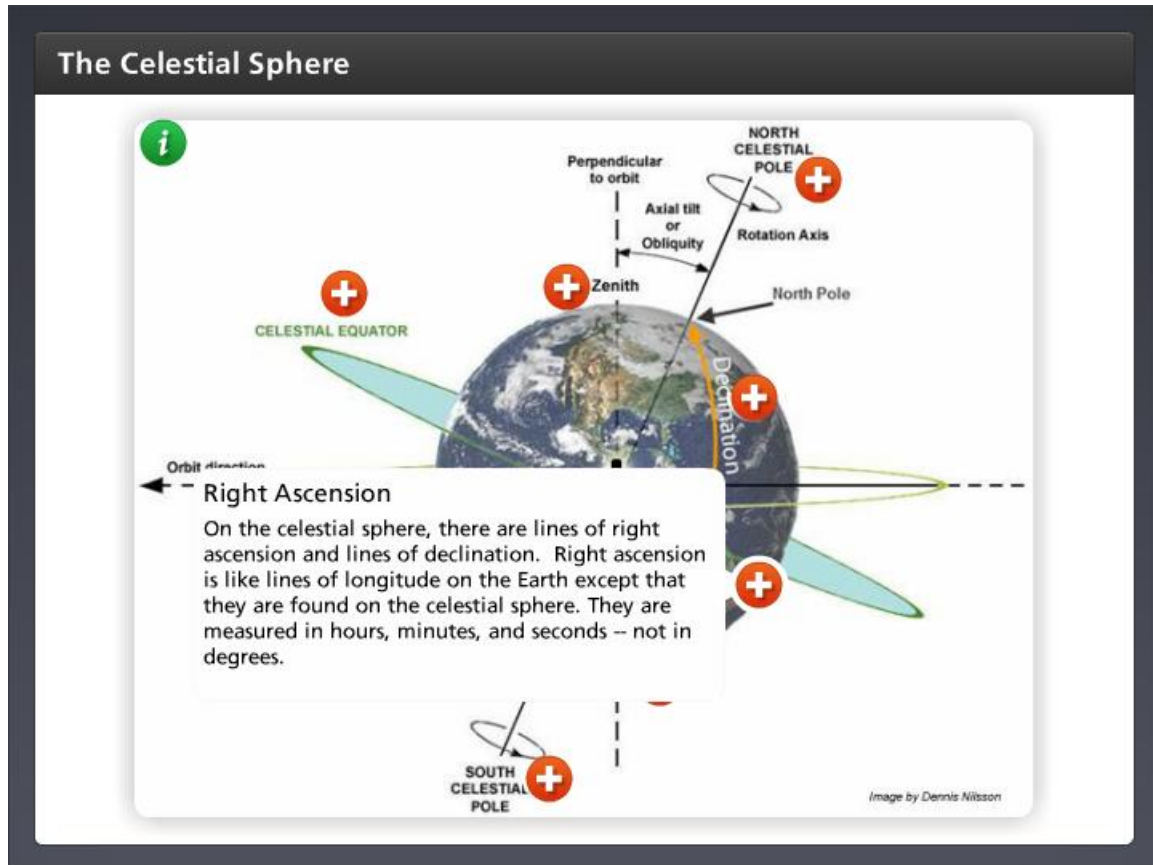


The ecliptic is an imaginary line that represents the path that the sun makes in relationship to the different star patterns or constellations on the celestial sphere.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

Right Ascension

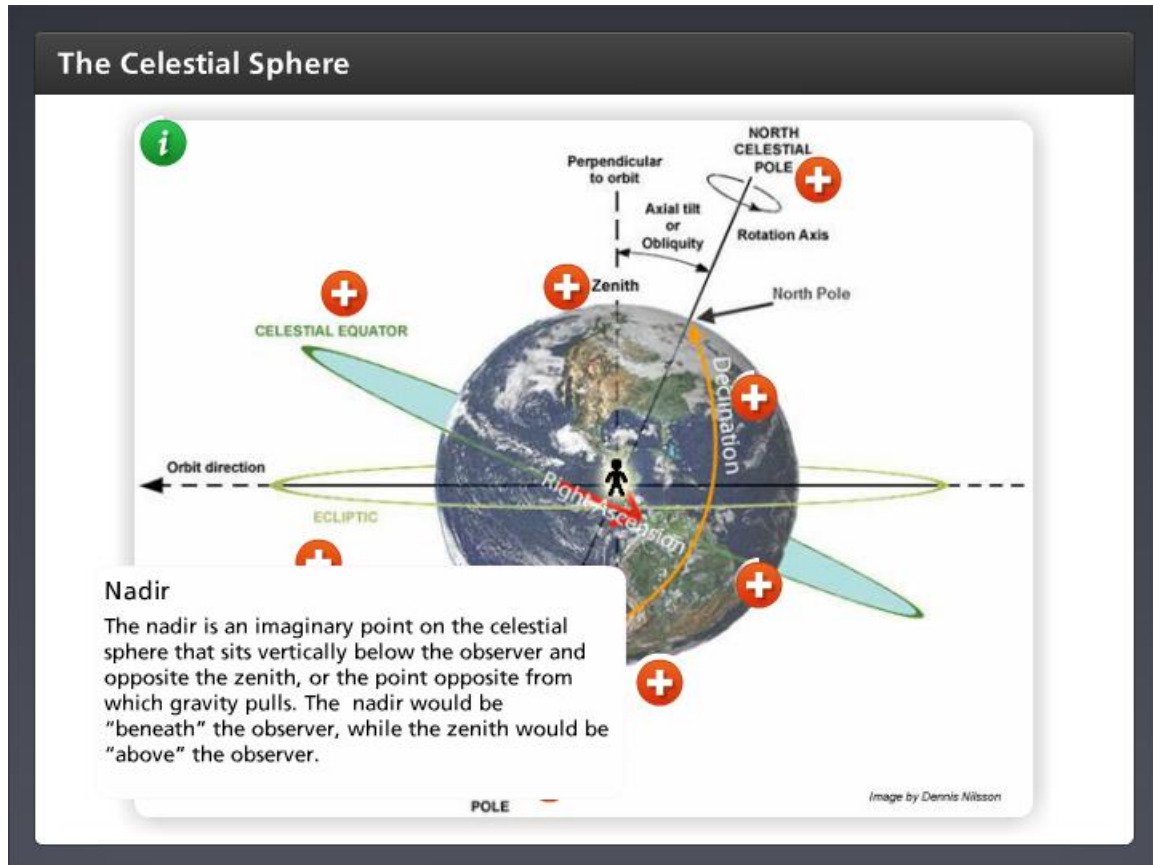


On the celestial sphere, there are lines of right ascension and lines of declination. Right ascension is like lines of longitude on the Earth except that they are found on the celestial sphere. They are measured in hours, minutes, and seconds -- not in degrees.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

Nadir

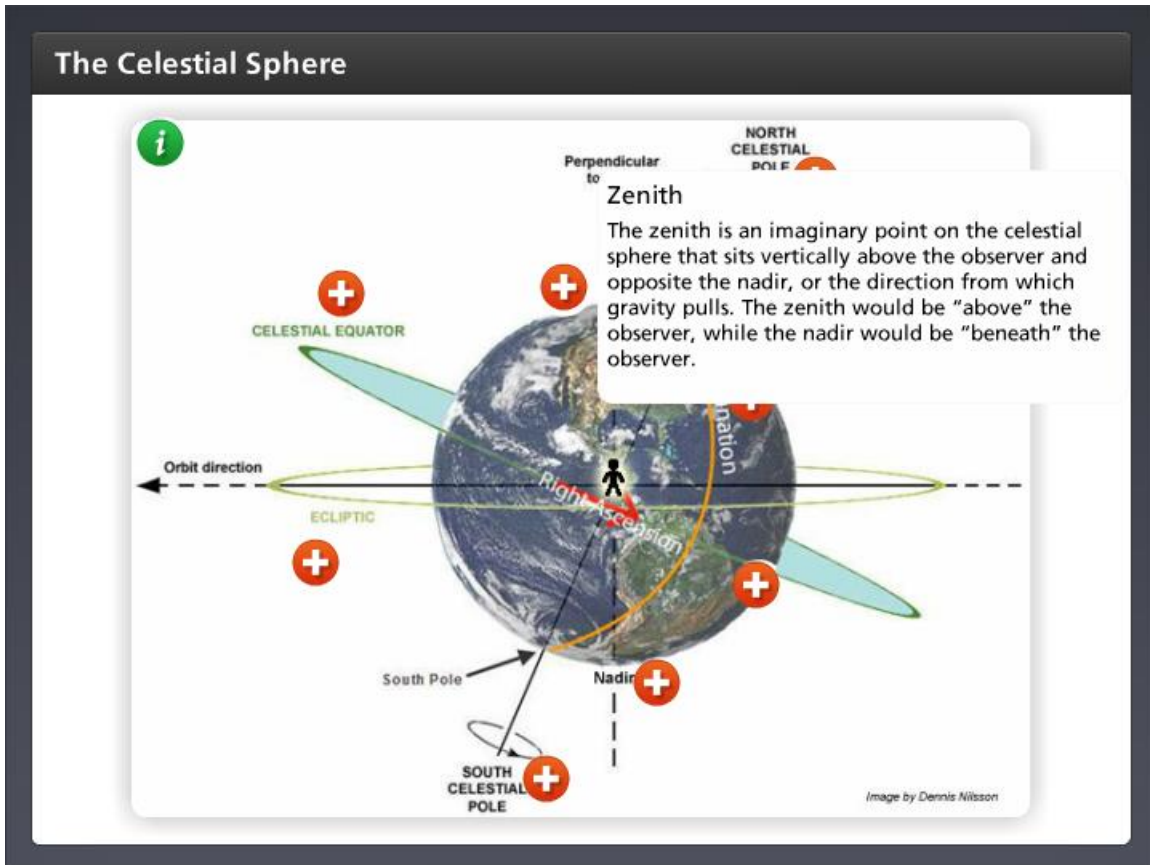


The nadir is an imaginary point on the celestial sphere that sits vertically below the observer and opposite the zenith, or the point opposite from which gravity pulls. The nadir would be “beneath” the observer, while the zenith would be “above” the observer.

Module 2: Constellations

Topic 1 Content: The Celestial Sphere

Zenith



The zenith is an imaginary point on the celestial sphere that sits vertically above the observer and opposite the nadir, or the direction from which gravity pulls. The zenith would be "above" the observer, while the nadir would be "beneath" the observer.