"Understanding The Night Sky"/ Planetarium Lab

Planetarium:

- " A device to project images of celestial bodies onto the inner surface of a dome"
- Advantages: ability to project the sky at any time of day, any given day of any year, from any given location on earth; also ability to make this changes occur at a faster rate than natural. **Also, no mosquitoes, no clouds, no rain, no heat or cold!**

Constellations:

- Ancients
- Star patterns
  -constellation
  - asterism
- Star names
  -proper names
  -greek alphabet
  -numbers

Star Brightness:

- Magnitude scale (higher # = dimmer; lower # = brighter)

Reference Points

-Celestial sphere
-Zenith
-Horizon
-Cardinal points (N<S<E<W)
-Meridian
-North Celestial Pole (NCP)
-South Celestial Pole (SCP)
-Celestial equator

Daily Changes In The Sky:

-Earth's rotation (W---E)
-Star's apparent rotation (E---W)
-Star's motion as seen from:
  -North Pole
  -Equator
  -Mid-latitudes

Seasonal/Yearly Changes In The Sky:

-Seasonal Sky Patterns:
-Revolution of Earth around the Sun
-Ecliptic
-Zodiac

-What causes the seasons?
    -Axial tilt of Earth?
    -Revolution of Earth about Sun?
    - Angle of Sunlight on Earth
    - "Midnight Sun"
    - Solstice (Summer, Winter)
    -Equinox (Spring/Vernal, Autumnal)

Long-Term (1000's of years) Changes In The Sky:

-Precession (what causes it?)
-26,000 year cycle
-Polestar changes