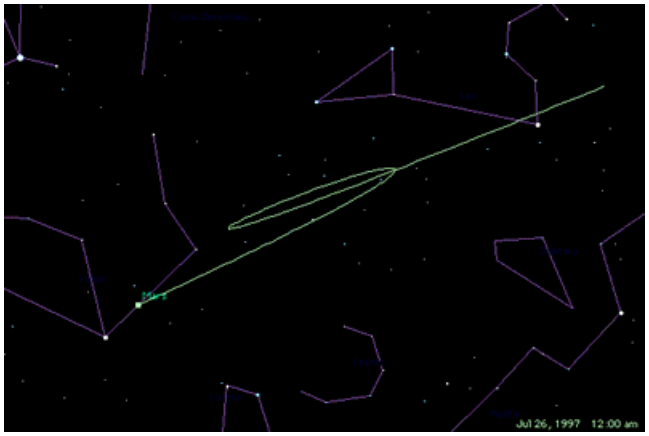
100 Illustrated Ways to Pass the Earth Science Regents with Sample Questions and Games

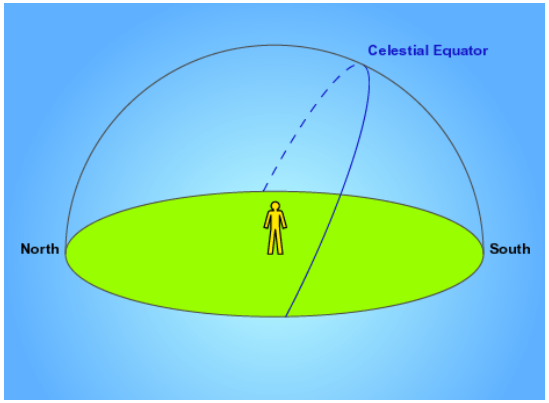
*****This is a copy of the online review sheet located at: (www.ReviewEarthScience.com/100ways). Many of the images located in the online version are animations or pictures which show movement. In order to get the most out of this review sheet, the online site should be visited! This sheet does not do the online version justice! Additionally, the online version has practice regents questions and online games! *****

21 Planets appear to go backwards (retrograde) as the earth passes them in space.

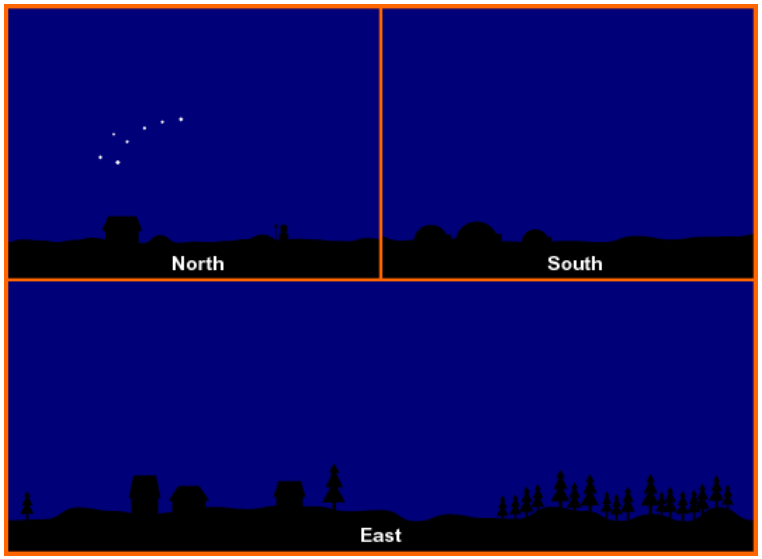


If observed from one night to the next, a planet appears to move from West to East against the background stars most of the time. Occasionally, however, the planet's motion will appear to reverse direction, and the planet will, for a short time, move from East to West against the background constellations. This reversal is known as retrograde motion, and is illustrated in the following animation.

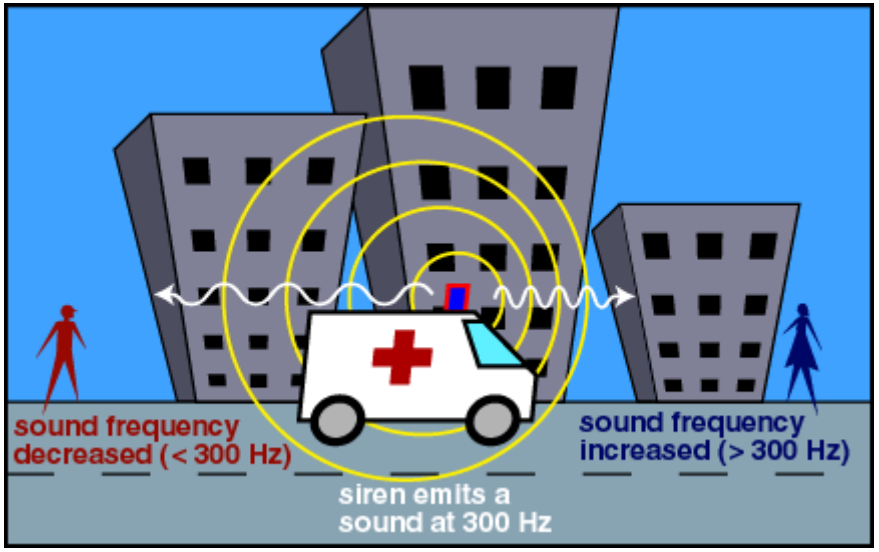
22 Summer solstice: June 21st; Winter solstice: December 21st; Equinoxes: March 21st & September 23rd.



23 To an observer in the mid-latitudes of the northern hemisphere facing north, stars appear to make a complete circle around Polaris (North Star).



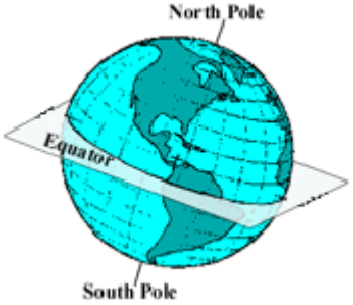
24 Blue Shift: object (e.g.: star) is getting closer to earth. Red Shift: object is getting further away (provides evidence universe is still expanding).



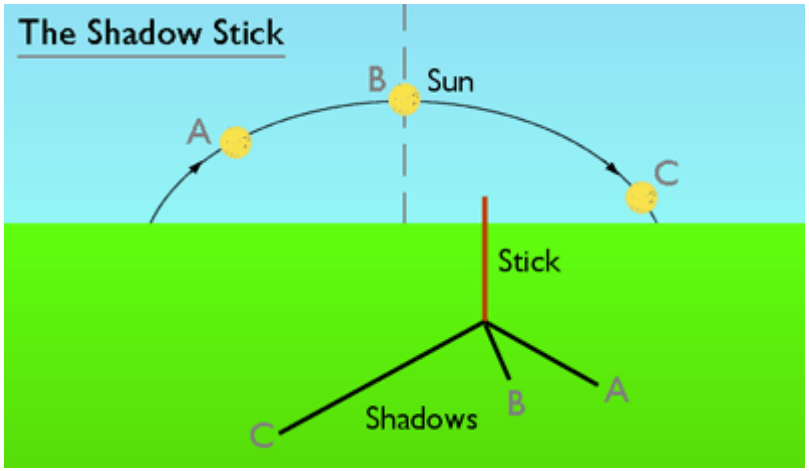
Red Shift
object further

Blue Shift
object closer

25 Equator always has 12 hours of day-light.

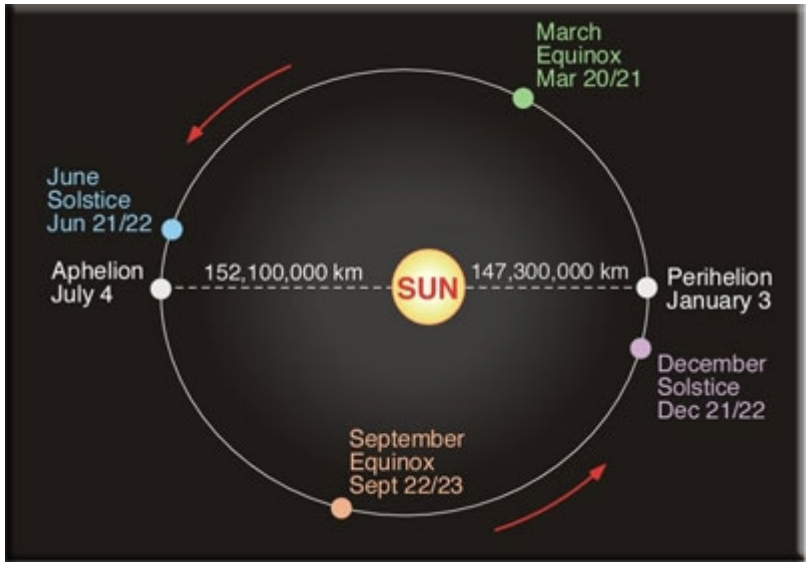


26 The lower the altitude of the sun, the longer the shadow it casts.

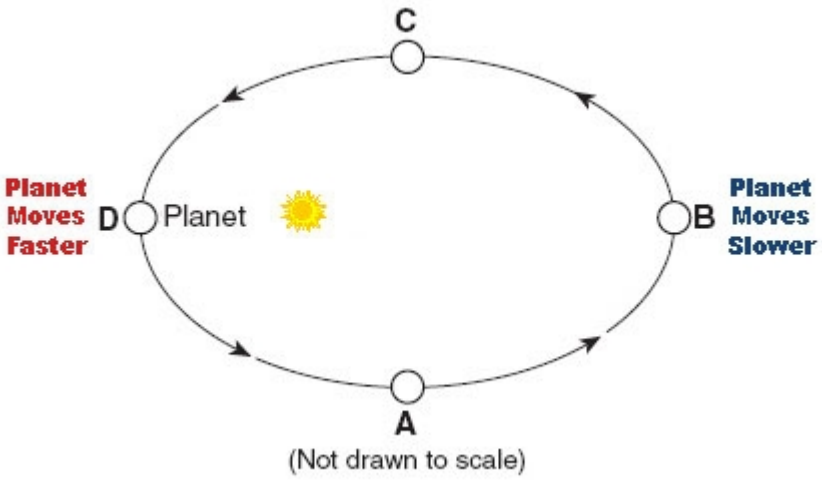


27 The Coriolis Effect results from the earth's rotation. The Foucault Pendulum illustrates the Coriolis Effect, and so 'proves' the earth's rotation.

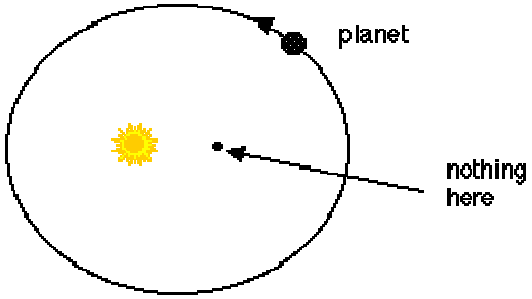
28 Earth is closer to the sun in the winter.



29 The closer the planet is to the sun the higher it's velocity and the further the planet is from the sun, the slower its velocity.



30 The sun is one foci on an ellipse. There is nothing at the other foci.



NOT TO SCALE

Eccentricity of an ellipse $\quad \text{eccentricity} = \dfrac{\text{distance between foci}}{\text{length of major axis}}$