## The Ecliptic

$\star$ the annual path that the sun traces in the sky,
$\star$ the projection of the plane of Earth's orbit onto the celestial sphere.
$\star$ The constellations which the ecliptic traverses



Of course, there are many other stars visible, some bright, most dim.

Direction that the
Sun moves along the ecliptic

Constellation
Scorpius


South
View to the south at midnight on June 21

## Consider that ...

the Sun is higher at noon in June than in December,
the Sun is slightly farther from Earth in June than in December,
the stars that are in the midnight December sky are the same stars in the noon June sky, and vice versa, the ecliptic is high at midnight in December and at noon in June, and it is low at noon in December and at midnight in June.

## Also consider that ...

the Sun always lies directly on the ecliptic line, moving two of its own apparent diameters to the east each day, (The Sun's diameter is 0.5 degrees. It moves $1^{\circ}$ each day.) it takes the Sun 365.25 days to complete one circuit around the ecliptic, and the Moon and the planets lie either on or near the ecliptic.


Apparent direction of motion of the Sun across the celestial dome

Direction of view at noon on Dec. 21


Duplication allowed and ecouraged for

On Dec. 21, Winter begins in the northern hemisphere. The North Pole reaches its maximum tilt away from the Sun.


