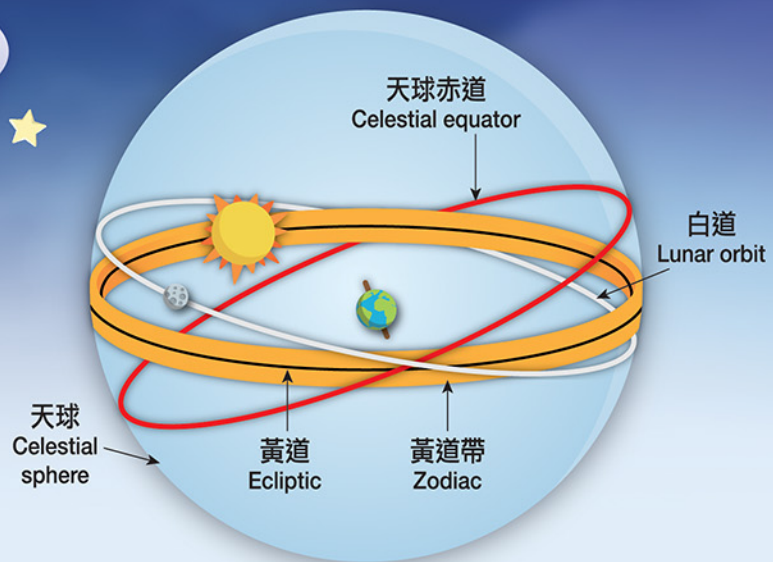


# 知多一點點：天球概念

## Know More: Celestial Sphere



### 黃道

太陽在天球上一年行經的軌跡

### Ecliptic

The path of the Sun on the celestial sphere over the course of a year

### 黃道帶

黃道附近的範圍，範圍內的星座稱為黃道十二宮

### Zodiac

The band extends from the ecliptic, containing the 12 zodiac constellations

### 白道

月球在天球上行經的軌跡

### Lunar orbit

The path of the Moon on the celestial sphere

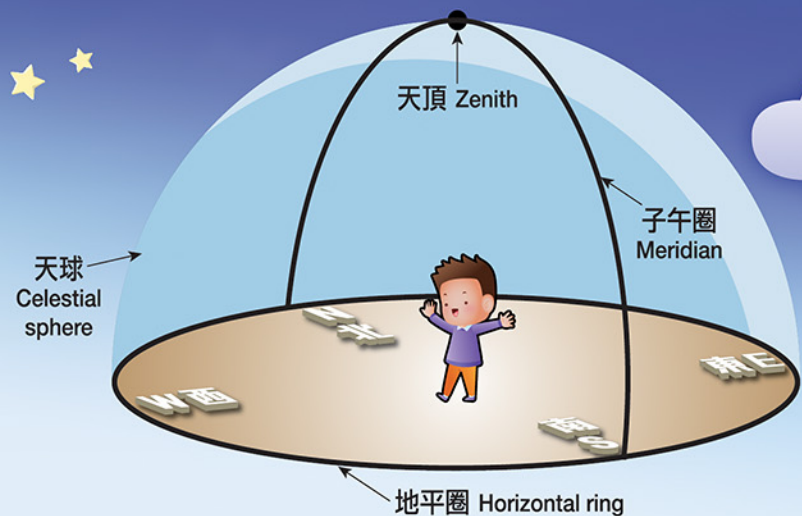
### 天球赤道

地球赤道在天球上的投影

### Celestial equator

The projection of the Earth's equator on the celestial sphere

天球是假想出來一個代表天空的球體，所有天體看來皆處於天球表面，地球孤懸在天球正中心。認識天球概念多一些，有助我們認識這些西洋天文奇器的操作。



### 天頂

天球上觀測者頭頂的一點

### Zenith

The point on the celestial sphere directly above the observer's head

### 地平圈

天球上距離觀測者天頂90°的大圓

### Horizontal ring

The great circle on the celestial sphere at 90° to the observer's zenith

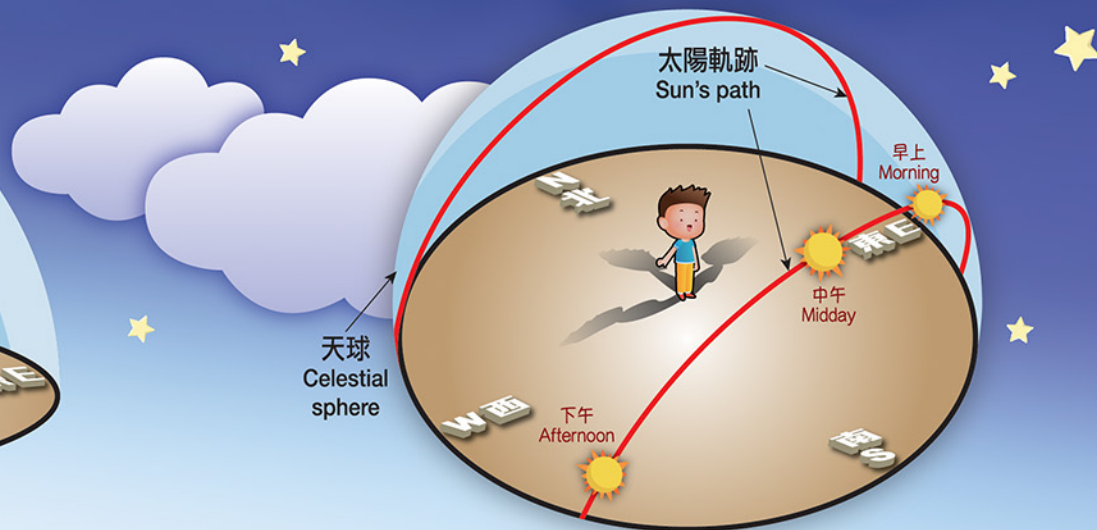
### 子午圈

天球上穿越南北兩方位和天頂的大圓

### Meridian

The great circle on the celestial sphere containing the North, South cardinal points and the zenith

The celestial sphere is an imaginary sphere representing the sky. Everything in the sky appears on the celestial sphere. The Earth is at the centre of the sphere. Learning more about the celestial sphere can help us understand more about the operation of these astronomical instruments.



### 太陽軌跡

地球的自轉軸相對於其公轉軸傾斜了約23.5°，因此太陽在天空上的軌跡每日不同。

### Sun's path

The Sun's path changes daily because the Earth's rotational axis inclines at around 23.5° to its axis of revolution.

### 日晷

太陽在天空上以大致固定的速度移動，因此從晷針影子的位置便可得知時間。

### Sundial

The shadow of the stylus tells the time because the Sun moves across the sky at a roughly uniform speed.