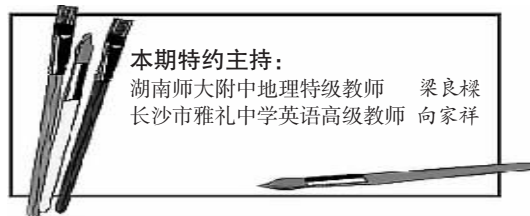


# 太阳高度



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## 课本连线

太阳高度是指太阳光线与地平面之间的夹角,即太阳在当地的仰角,又称太阳高度角。在任何地点,进入晨昏线时太阳在天空的位置为最低,这时的太阳高度为 $0^\circ$ 。正午时太阳在天空的位置最高,这时的太阳高度称为正午太阳高度。太阳高度等值线一般呈闭合的同心圆,其变化规律以太阳直射点为中心向四周递减。

## 读短文 答问题 学单词

### 读短文,答问题

阅读下面短文,根据所读内容将文后的10个小题的信息补充完整。注意:每空不超过3个单词。

C.O.P.D., chronic obstructive pulmonary disease (慢性阻塞性肺疾病), blocks airflow through the lungs, making breathing difficult. It is a new name for emphysema(肺气肿) and chronic bronchitis(慢性支气管炎). These are the two most common forms of the disease. Many people with C.O.P.D. have both of them. And Doctors say more women than men now die from the disease. The leading cause is cigarette smoking. Experts say the damage to the lungs cannot be repaired and there is no cure.

Dawn DeMeo is an assistant professor at Harvard Medical School in Boston, Massachusetts. She says by 2020, C.O.P.D. will likely be the third leading cause of death across the world. She is the lead author of a study by a team from Harvard's Brigham and Women's Hospital and the University of Bergen in Norway. The new study adds to findings that women may be more at risk than men for the damaging effects of smoking. The team examined results from a Norwegian study of 954 people with C.O.P.D. Doctors say the findings show that women suffered more severe C.O.P.D. and a greater loss of lung function than men.

Dr. DeMeo says many people underestimate the health risks of their own cigarette consumption, thinking that a few cigarettes here and there, a few cigarettes every day, are harmless. But clearly there is no such thing as a safe level of cigarette smoke exposure. And the findings suggest that this is particularly true for women.

There are several possible explanations why women may be more at risk from the effects of cigarette smoke than men. Women have smaller airways, so each cigarette may do more harm. Also, there are differences between males and females in the way the body processes cigarette smoke. And genes and hormones could also play an important part.

### Title: Smoking and 1

Information about C.O.P.D.	It is a new name for emphysema and 1. Chronic bronchitis 2. making breathing difficult. The leading cause of the disease is 3.
Research on C.O.P.D.	The new study adds to findings that women may be more at risk than men for the damaging effects of smoking. The team examined results from a Norwegian study of 954 people with C.O.P.D.
6 of the research	Women suffer more severely and a greater loss of 7 than men. In Western Europe, 8. In Wigan, the body processes 9 are different between men and females. 10 play an important part.

文章大意:女性吸烟既不代表现代社会的时尚,也不能提高自己的地位与尊严。相反,它还带来对身体的残害。据医学专家研究认定,女性吸烟所造成的身体的危害比男性更大。

参考答案:1. C.O.P.D. (on women) 2. chronic bronchitis 3. lungs 4. cigarette smoking 5. 954 people 6. Result 7. lung function 8. smaller airways 9. cigarette smoke 10. Genes and hormones

### 读短文,学词汇

- obstructive a.引起阻塞的,阻碍的,妨碍的
- airflow n.空气的流动,气流
- severity n.严格,朴素,激烈,严重性
- underestimate vt.低估,看轻
- process vt.加工,使...接受处理,对...处置,对...起诉
- add to 增加;加到...上
- at risk 在危险中
- play a part 起作用

## 读图分析

太阳高度等值线图是一种比较新颖的等值线图。这种示意图是用等太阳高度线(由太阳高度角相等的各点连接而成的线)来反映某一时刻太阳高度的全球分布状况。其实质是以太阳直射点为中心的半球俯视图。

1、昼半球上,太阳高度等值线以直射点为圆心,呈同心圆分布;太阳高度从圆心向四周递减; $0^\circ$  太阳高度等值线为晨昏圈。

2、过圆心的横线为直射点的纬线。过圆心的竖线的大部分为直射点所在经线。

3、若太阳直射在赤道上,N、S为极点,NOS为一条完整的经线,则该经线为地方12时,经线NOS上所有点对应的太阳高度值均为正午太阳高度值(H)。(见图1)

4、若太阳直射点不在赤道上,则A、B不为极点,但A、B在同一个经线圈上,A、B的纬度值与太阳直射点的纬度值互余,该经线圈的大部分(下图中NOA经线)为12时,经线NOA上所有点对应的太阳高度值均为正午太阳高度值(H),另一部分(图中的NB)为0时(或

24时),出现极昼现象。(见图2)

5、就南北方向而言,在太阳直射的经线上,太阳高度角相差多少度,纬度就相差多少度,就东西方向而言,如果太阳直射赤道,则赤道上太阳高度相差多少度,经度就相差多少度;如果太阳直射其他纬线,此纬线上太阳高度相差多少度,经度的差值一定大于太阳高度的差值。

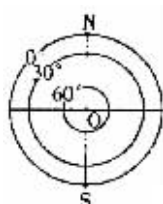


图1

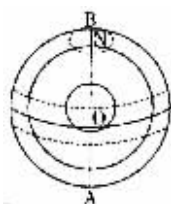


图2

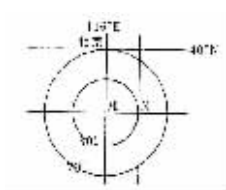
## 一周精练

一、下图中①②③为地球上某时刻太阳高度等值线(①>②>③)。读图,回答1~3题:



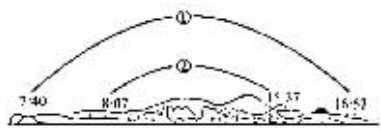
- 该日,地球上昼长最大值的地区是( )  
A. 北半球  
B. 北回归线  
C. 北回归线及其以北地区  
D. 北寒带
- P点正当( )  
A. 日出时刻  
B. 日落时刻  
C. 6点钟  
D. 18点钟
- 图中太阳高度最大值地点与P点之间的距离约为( )  
A. 5500千米  
B. 10000千米  
C. 20000千米  
D. 15000千米

二、下图为某时刻我国局部地区太阳高度分布示意图,图中圆圈为等太阳高度线,水平直线表示纬线,竖直的直线表示经线,读图回答4~5题。



- 此时北京时间是( )  
A. 12时  
B. 0时  
C. 12时16分  
D. 11时44分
- M、N两地的经度差( )  
A. 大于 $10^\circ$   
B. 小于 $10^\circ$   
C. 等于 $10^\circ$   
D. 可能大于 $10^\circ$ ,也有可能小于 $10^\circ$

三、下图为我国①②两地某日日出日落(北京时间)示意图,读图回答6~8题。



- 该日最有可能是( )  
A. 3月21日  
B. 6月22日  
C. 9月23日  
D. 12月22日
- ①地可能为( )  
A. 乌鲁木齐  
B. 成都  
C. 北京  
D. 上海
- ①地位于②地的( )  
A. 东北方向  
B. 西南方向  
C. 东南方向  
D. 西北方向

【答案】1A 2A 3B 4C 5A 6D 7C 8B

