WordCard

The Solar System: Our Cosmic Neighborhood

Vocabulary: 20 | Sentences: 30

原文 / Original

The solar [system] consists of the Sun and everything that orbits, or [travels] around, the Sun. This includes the eight [planets] and their moons, dwarf [planets], and [countless] [asteroids], comets, and other small icy [objects]. The solar [system] extends about two light-years from the Sun, marking the outer [boundary] where the Sun's [gravitational] influence ends. At the center of our solar [system] is the Sun, a giant star that produces enormous amounts of energy through nuclear fusion. The Sun contains 99.86% of the solar [system]'s total mass and provides the light and heat necessary for life on Earth. Without the Sun's [gravitational] pull, the [planets] would drift aimlessly through space. The eight [planets] are divided into two main categories. The four inner [planets]—[mercury], Venus, Earth, and Mars—are terrestrial [planets] with solid, rocky surfaces. These [planets] are relatively small and close to the Sun. [mercury] is the smallest and fastest [planet], completing an orbit in just 88 Earth days. Venus is the hottest [planet] due to its thick atmosphere that traps heat. Earth is the only [planet] known to

support life, while Mars has attracted scientific interest for its potential to harbor life. Beyond Mars lies the [asteroid] belt, a [region] [containing] [millions] of rocky [objects]. This belt marks the [boundary] between the inner and outer [planets]. The [asteroids] range in size from tiny [particles] to Ceres, the [largest] object in the belt and the only dwarf [planet] in the inner solar [system]. The four outer [planets]—[jupiter], Saturn, [uranus], and [neptune]—are much larger than the inner [planets]. [jupiter] is the [largest] [planet] in our solar [system], with a mass more than twice that of all other [planets] combined. It features the Great Red Spot, a storm that has raged for centuries. Saturn is famous for its spectacular ring [system], composed mainly of ice [particles]. [uranus] and [neptune], the most [distant] [planets], are ice giants with frigid temperatures. [uranus] rotates on its side, while [neptune] has the strongest winds in the solar [system]. Beyond [neptune] lies the Kuiper Belt, a donut-shaped [region] [containing] [countless] icy bodies. This [region] is similar to the [asteroid] belt but much larger. Pluto, once considered the ninth [planet], is now classified as a dwarf [planet] in the Kuiper Belt. Each [planet] [travels] in an elliptical orbit around the Sun,

following the laws of gravity discovered by Isaac Newton. Earth completes one orbit in exactly 365.25 days, defining our year. The outer [planets] take much longer—[neptune], the most [distant], requires about 165 Earth years to complete one orbit. The solar [system] formed approximately 4.6 billion years ago from a giant cloud of gas and dust. Over [millions] of years, this material slowly collapsed under its own gravity, forming the Sun and the surrounding protoplanetary disk from which the [planets] eventually emerged. Today, scientists continue to explore our solar [system] using spacecraft and telescopes. Missions like Voyager have sent back remarkable images of [distant] worlds, while Mars rovers search for signs of ancient life. Understanding our solar [system] helps us appreciate both the fragility and resilience of our home [planet].

中英双语 / EN-CH

The solar [system] consists of the Sun and everything that orbits, or [travels] around, the Sun. This includes the eight [planets] and their moons, dwarf [planets], and [countless] [asteroids], comets, and other small icy [objects]. The solar [system] extends about two light-years from the Sun, marking the outer [boundary] where the Sun's [gravitational] influence ends.

太阳系包括太阳和围绕太阳运转的物体.其中包括八颗行星及其卫星,矮行星,无数小行星
,彗星和其他小冰层物体.太阳系从太阳延伸约两光年,标志着太阳引力影响结束的外界.

At the center of our solar [system] is the Sun, a giant star that produces enormous amounts of energy through nuclear fusion. The Sun contains 99.86% of the solar [system]'s total mass and provides the light and heat necessary for life on Earth. Without the Sun's [gravitational] pull, the [planets] would drift aimlessly through space.

我们的太阳系的中心是太阳,这颗巨大的恒星通过核聚变产生大量的能量.太阳包含太阳系
总质量的99.86%并提供地球上生命所需的光和热量.如

果没有太阳的引力,行星将无 目的地漂流在太空中.

The eight [planets] are divided into two main categories. The four inner [planets]—[mercury], Venus, Earth, and Mars—are terrestrial [planets] with solid, rocky surfaces. These [planets] are relatively small and close to the Sun. [mercury] is the smallest and fastest [planet], completing an orbit in just 88 Earth days. Venus is the hottest [planet] due to its thick atmosphere that traps heat. Earth is the only [planet] known to support life, while Mars has attracted scientific interest for its potential to harbor life.

八个行星分为两个主要类别.四个内行星水星,金星,地球和火星是有固体,岩石表面的陆
地行星.这些行星相对较小,离太阳近.水星是最小的和最快的行星,仅在88个地球日内
完成一次轨道.金星是最热的行星,因为它的厚厚的大气层捕捉热量.地球是已知的唯一支
持生命的行星,而火星因其潜力吸引了科学兴趣.

Beyond Mars lies the [asteroid] belt, a [region] [containing] [millions] of rocky [objects]. This belt marks the [boundary] between the inner and outer [planets]. The [asteroids] range in size from tiny [particles] to Ceres, the [largest] object in the belt and the only dwarf [planet] in the inner solar

[system].

火星之外的小行星带是一个包含数百万颗岩石物体的区域.这个带标志着内行星和外行星之
间的边界.小行星的尺寸从微小的粒子到Ceres,这是该带中最大的物体,也是内太阳 系中唯一的矮行星.

The four outer [planets]—[jupiter], Saturn, [uranus], and [neptune]—are much larger than the inner [planets]. [jupiter] is the [largest] [planet] in our solar [system], with a mass more than twice that of all other [planets] combined. It features the Great Red Spot, a storm that has raged for centuries. Saturn is famous for its spectacular ring [system], composed mainly of ice [particles]. [uranus] and [neptune], the most [distant] [planets], are ice giants with frigid temperatures. [uranus] rotates on its side, while [neptune] has the strongest winds in the solar [system].

四颗外行星 - - 木星,土星,天王星和海王星 - - 比内行星大得多.木星是我
们太阳系中最大的行星,质量是其他所有行星的两倍以上.它具有大红斑,这是几个世纪以
来的暴风雨.土星以其壮观的环系统而闻名,主要由冰颗粒组成.天王星和海王星是最遥远
的行星,是冰巨星,温度极低.天王星在侧面旋转,而海王星在太阳系中拥有最强的风.

Beyond [neptune] lies the Kuiper Belt, a donut-shaped [region] [containing] [countless] icy bodies. This [region] is similar to the [asteroid] belt but much larger. Pluto, once considered the ninth [planet], is now classified as a dwarf [planet] in the Kuiper Belt.

海王星以后的位置是柯伊伯带,一个以甜甜圈形状的区域,包含无数的冰质物体.这个区域
类似于小行星带,但更大.曾经被认为是第九颗行星的冥王星现在被归类为柯伊伯带中的矮 行星.

Each [planet] [travels] in an elliptical orbit around the Sun, following the laws of gravity discovered by Isaac Newton. Earth completes one orbit in exactly 365.25 days, defining our year. The outer [planets] take much longer—[neptune], the most [distant], requires about 165 Earth years to complete one orbit.

每颗行星都以圆轨道绕太阳运行,遵循由艾萨克·牛顿发现的引力定律.地球在正确的36
5.25天内完成一个轨道,定义了我们的一年.外行星需要更长的时间海王星,最遥远的
,需要大约165个地球年才能完成一个轨道.

The solar [system] formed approximately 4.6 billion years ago from a giant cloud of gas and dust. Over

[millions] of years, this material slowly collapsed under its own gravity, forming the Sun and the surrounding protoplanetary disk from which the [planets] eventually emerged.

太阳系大约在46亿年前由一个巨大的气体和尘埃云形成.数百万年来,这种物质在自己的
重力下慢慢崩,形成了太阳和周围的原行星盘,最终从中形成了行星.

Today, scientists continue to explore our solar [system] using spacecraft and telescopes. Missions like Voyager have sent back remarkable images of [distant] worlds, while Mars rovers search for signs of ancient life. Understanding our solar [system] helps us appreciate both the fragility and resilience of our home [planet].

今天,科学家们继续使用太空飞船和望远镜探索太阳系.像"旅行者号"这样的任务已经发
回了遥远世界的非凡图像,而火星探测器则在寻找古代生命的迹象.了解太阳系有助于我们
欣赏地球的脆弱性和弹性.

词汇表 / Vocabulary

1. planets|星球
2. system|系统
3. planet|星球
4. neptune|海王星
5. distant|在远方
6. region|地区
7. uranus|乌兰子
8. gravitational|引力
9. containing|含有
10. countless|无数的
11. asteroids|小行星
12. particles|颗粒
13. boundary|边界
14. asteroid|小行星
15. millions|数百万
16. travels|旅行
17. objects|其他物品
18. mercury|水银
19. largest|最大的
20. jupiter|木星

精彩句子 / Sentences

1. The solar [system] consists of the Sun and everything that orbits, or [travels] around, the Sun.

太阳系由太阳和围绕它运行的一切组成，或在周围旅行，在太阳.

2. This includes the eight [planets] and their moons, dwarf [planets], and [countless] [asteroids], comets, and other small icy [objects].

这包括八个行星及其卫星，矮行星，以及无数的小行星，彗星，其他小冰的物体.

3. The solar [system] extends about two light-years from the Sun, marking the outer [boundary] where the Sun's [gravitational] influence ends.

太阳系距离太阳大约有两光年，标志着太阳引力影响结束的外界.

4. Without the Sun's [gravitational] pull, the [planets] would drift aimlessly through space.

没有太阳的引力，星球会无目的地在太空中漂流.

5. The four inner [planets]—[mercury], Venus, Earth, and Mars—are terrestrial [planets] with solid, rocky surfaces.

四个内行星水星，金星，地球，火星是地球类的行星,，在岩石表面.

6. Beyond Mars lies the [asteroid] belt, a [region] [containing] [millions] of rocky [objects].

在火星之外,有小行星带，这是一个包含数百万岩石物体的区域.

7. The [asteroids] range in size from tiny [particles] to Ceres, the [largest] object in the belt and the only dwarf [planet] in the inner solar [system].

小行星的尺寸从微小的粒子到天体，它是太阳系内唯一的矮行星.

8. The four outer [planets]—[jupiter], Saturn, [uranus], and [neptune]—are much larger than the inner [planets].

四颗外行星木星，土星，太阳，而海王星则比内行星大得多.

9. [jupiter] is the [largest] [planet] in our solar [system], with a mass more than twice that of all other [planets] combined.

木星是太阳系中最大的行星，它的质量是其他行星总和的两倍.

10. Saturn is famous for its spectacular ring

[system], composed mainly of ice [particles].

土星以其壮观的环系而闻名，主要由冰颗粒组成.

11. [uranus] and [neptune], the most [distant] [planets], are ice giants with frigid temperatures.

天王星和海王星，最遥远的行星，它们是极寒的冰巨星.

12. [uranus] rotates on its side, while [neptune] has the strongest winds in the solar [system].

天王星在侧面旋转，而海王星拥有太阳系中最强的风.

13. Beyond [neptune] lies the Kuiper Belt, a donut-shaped [region] [containing] [countless] icy bodies.

海王星的另一边是柯伊伯带，一个甜甜圈形状的区域包含无数的冰体.

14. Each [planet] [travels] in an elliptical orbit around the Sun, following the laws of gravity discovered by Isaac Newton.

每颗行星都以圆轨道绕太阳运行，根据艾萨克·牛顿发现的引力定律.

15. Over [millions] of years, this material slowly collapsed under its own gravity, forming the Sun and the surrounding protoplanetary disk from which the [planets] eventually emerged.

在数百万年里，这种物质在自身的重力下慢慢崩，形成太阳和周围的原行星盘,从中行星最 终出现.