**八年级（下）英语第3周第3课时**

**Module 3 Unit 3 学程拓展**

**请同学们阅读短文，了解宇宙的相关知识。**

*What is the Solar System?*

The Solar System is made up of all the planets that go around our Sun. Besides planets, the Solar System also has moons, comets, asteroids (小行星), minor planets, dust and gas.

Everything in the Solar System goes around the Sun. The Sun has around 98% of all the objects in the Solar System. The larger an object is, the more gravity (重力) it has. Because the Sun is so large, its powerful gravity makes all the other objects in the Solar System go towards it. At the same time, these objects, which are moving very fast, try to fly away from the Sun, outward into the emptiness of outer space. The result of the planets trying to fly away, and at the same time the Sun is trying to pull them inward, is that they become trapped half-way in between. Balanced between flying towards the Sun, and running into space, they will forever go around their parent star.

*The Milky way*

The Milky way is our own galaxy in which our Solar System stays. The word galaxy means milk in Greek. Before the use of telescopes, the galaxies looked like a milky or cloudy area in the sky. Our relatively small Solar System is one of 100-200 billion stars. The Sun and all the planets in the Solar System take about 200 million years to finish one turn around its centre.

*How do we measure the universe?*

People usually measure the objects in the universe by light year. A light year is the distance that light travels in empty space in one year. A light year is not a length of time but a length of distance.

*How big is the universe?*

 No one knows how big the universe is. All we have discovered is that the Galaxy and the Milky way is 100,000 light years in diameter (直径). It means that it will take the light 50,000 years to travel only half of the Galaxy. And in the universe that we can see now, there are about 170 billion galaxies like this. What we cannot see is unknown. So how big is our universe?