

## **Other Planets**

### **Mercury**

Mercury is too small for its gravity to hold on to any appreciable atmosphere. There are a few trace levels of light gases such as helium and hydrogen, but overall Mercury is not considered to have a real atmosphere.

### **Venus**

Venus has the densest atmosphere of all the inner planets. Its atmosphere is made up almost entirely of carbon dioxide gas, which traps solar radiation and makes Venus the hottest planet in the solar system, with a surface temperature of about 860°F.

### **Earth**

Earth is the only planet with an oxygen-rich atmosphere and the only planet to support life, as far as we know.

### **Mars**

The atmosphere on Mars is extremely high in carbon dioxide gas. But unlike Venus, Mars has a very thin atmosphere, so even though it has high carbon dioxide content, Mars cannot store heat from the Sun. Mars also has a very dusty atmosphere with a high concentration of particulate matter.

### **Jupiter**

Jupiter's atmosphere is made almost entirely of the gases, hydrogen and helium. Its outermost atmosphere also contains frozen crystals of ammonia.

### **Saturn**

Saturn's atmosphere is almost entirely made of hydrogen and helium. It has thick cloud cover and very fast winds that reach speeds of up to 1,800 km/hour.

### **Uranus**

The atmosphere of Uranus is very similar to that of Jupiter and Saturn. It is made mostly of hydrogen and helium. Uranus also has significant levels of water ice, ammonia ice, and methane ice in its atmosphere.

### **Neptune**

Neptune's atmosphere is made up of hydrogen and helium, and considerable amounts of water ice and methane ice. Unlike Uranus, Neptune has noticeable weather patterns driven by the strongest winds of any planet in the solar system. Winds on Neptune can reach 2,100 km/hour.

### **Pluto**

Pluto's atmosphere is a thin layer of nitrogen, methane, and carbon monoxide. When Pluto is at its farthest point away from the Sun in its orbit, its atmosphere actually freezes and falls to the ground. As Pluto gets closer to the Sun, the atmosphere changes back to a gas, but temperatures on the planet still get as cold as about -382°F.