

Excerpts from The Book of Daniel



Belshazzar's Feast, Jan Muller, 1598, engraving on laid paper.



Daniel in the Lions' Den, Peter Paul Rubens, circa 1616, oil on canvas.

Context regarding these excerpts:

The Book of Daniel is the 27th book of the Old Testament. Daniel is a prophet who lives in the city of Babylon. Like Joseph, whom we read about earlier in the year, Daniel can interpret dreams. In this passage, the king of Babylonia is having a feast, but he is using the gold and silver that was taken from the temples in Jerusalem. Read the passage below to find out what happens to the king and Daniel.

The Handwriting on the wall - Daniel chapter 5

King Belshazzar made a great feast for a thousand of his lords and drank wine in front of the thousand. ² Belshazzar, when he tasted the wine, commanded that the vessels of gold and of silver that Nebuchadnezzar his father had taken out of the temple in Jerusalem be brought, that the king and his lords, his wives, and his concubines might drink from them. ³ Then they brought in the golden vessels that had been taken out of the temple, the house of God in Jerusalem, and

the king and his lords, his wives, and his concubines drank from them. 4 They drank wine and praised the gods of gold and silver, bronze, iron, wood, and stone.

5 Immediately the fingers of a human hand appeared and wrote on the plaster of the wall of the king's palace, opposite the lampstand. And the king saw the hand as it wrote. 6 Then the king's color changed, and his thoughts alarmed him; his limbs gave way, and his knees knocked together. 7 The king called loudly to bring in the enchanters, the Chaldeans¹, and the astrologers. The king declared to the wise men of Babylon, "Whoever reads this writing, and shows me its interpretation, shall be clothed with purple and have a chain of gold around his neck and shall be the third ruler in the kingdom." 8 Then all the king's wise men came in, but they could not read the writing or make known to the king the interpretation. 9 Then King Belshazzar was greatly alarmed, and his color changed, and his lords were perplexed.

10 The queen, because of the words of the king and his lords, came into the banqueting hall, and the queen declared, "O king, live forever! Let not your thoughts alarm you or your color change. 11 There is a man in your kingdom in whom is the spirit of the holy gods. In the days of your father, light and understanding and wisdom like the wisdom of the gods were found in him, and King Nebuchadnezzar, your father—your father the king—made him chief of the magicians, enchanters, Chaldeans, and astrologers, 12 because an excellent spirit, knowledge, and understanding to interpret dreams, explain riddles, and solve problems were found in this Daniel, whom the king named Belteshazzar. Now let Daniel be called, and he will show the interpretation."

Daniel Interprets the Handwriting

13 Then Daniel was brought in before the king. The king answered and said to Daniel, "You are that Daniel, one of the exiles of Judah, whom the king my father brought from Judah. 14 I have heard of you that the spirit of the gods is in you, and that light and understanding and excellent wisdom are found in you. 15 Now the wise men, the enchanters, have been brought in before me to read this writing and make known to me its interpretation, but they could not show the

¹ Chaldeans: Members of Chaldea; ruled Babylonia; known for astronomy and astrology

The Solar System

Chapter

1

When you notice the sun, you're observing one part of our **solar system**. Earth is a part of this system, as are other planets and other objects that move around our sun.

A solar system includes at least one star and the objects that travel around it. Some of these objects are planets, large spheres that move around the star. Other objects in a solar system include moons, asteroids, comets, and particles of rock and dust. The path an object follows around another object in space is called its **orbit**. Objects are held in orbit by the force of gravity.

Our solar system has one star—the sun—and eight planets. Other solar systems have more than one star at their center.

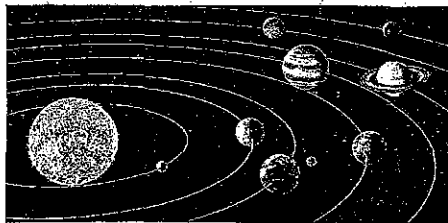
Big Question

What is the solar system?

Vocabulary

solar system, n. a system of objects in space that includes at least one star, planets, their moons, asteroids, comets, and other space debris

orbit, n. the oval-shaped path an object follows as it revolves around another object in space (v. to revolve around another object)

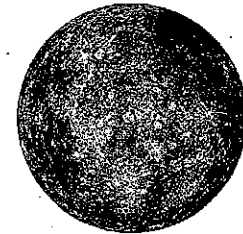


Artists illustrate the solar system to show its main objects and their orbits. But they can't all actually be photographed together. They are millions of miles apart.

Our Solar System Contains Some Rocky Planets

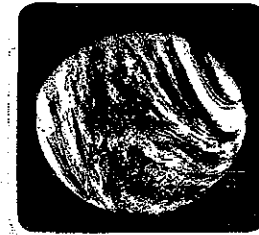
When our solar system formed over four billion years ago, only rocky materials could survive the heat near the sun. Eventually, these rocky materials formed planets. The four closest planets to the sun are made up mainly of rock and metal. Each has a solid surface and is known as a terrestrial planet.

Mercury: Mercury is the smallest of the terrestrial planets and the one that is closest to the sun. How close? It is approximately 35,600,000 miles away! Mercury is only slightly larger than Earth's moon, and it orbits the sun once every eighty-eight days. Its surface is very hot.



An instrument aboard NASA's *Messenger* spacecraft made this image of Mercury's surface.

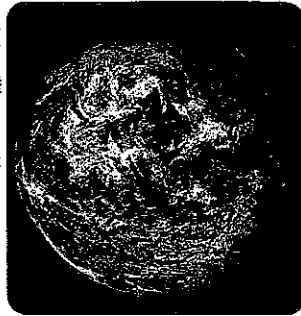
Venus: Venus may not be the closest planet to the sun, but it is the hottest! That is because Venus has a very dense atmosphere. Sunlight passes through Venus's atmosphere and is reflected off the surface. But then it is reflected back to the surface by the thick atmosphere.



This photo from the *Mariner 10* spacecraft shows clouds swirling above Venus's surface.

Venus is almost 67 million miles from the sun. It is about the same size as Earth and has many of the same features, including mountains and volcanoes. At one time, Venus may have even had a shallow ocean.

Earth: Earth, the third planet from the sun, is the only planet known to support life. Earth's temperature, the amount of water on and below its surface, and the mix of gases in its atmosphere all make life possible. Earth also has its own moon. In fact, it is the only planet with just one moon. Mercury and Venus do not have moons, and the remaining five planets have two or more.



What features of Earth do you notice when you look at this image taken from space?

Mars: Mars, the fourth planet from the sun, is about half the size of Earth. It has a thin atmosphere and is very cold, with an average temperature of -81°F . The surface of Mars is dotted with mountains, craters, canyons, and volcanoes. There is no evidence, now, that life exists on Mars. But evidence of water on Mars has led scientists to consider that it may have supported life at one time.



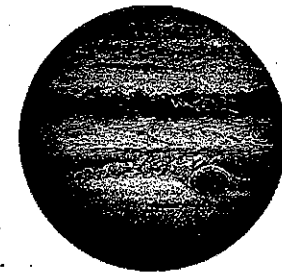
Mars is sometimes called the "red planet" because large amounts of iron in the soil give it a reddish color.

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Our Solar System Contains Some Gaseous Planets

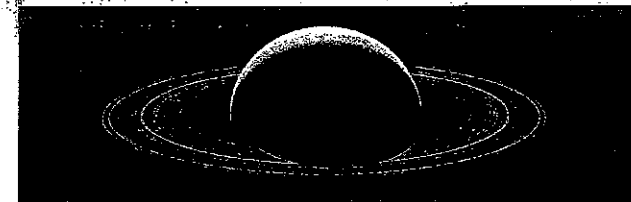
The other four planets in our solar system are classified as either ice giants or gas giants. These very large planets do not have a definite surface. Instead of a rocky ground, they are mostly made up of gases, and only their small cores at the very center are solid.

Jupiter: Jupiter is the largest planet in our solar system. Jupiter also has seventy-nine different moons that we know of! Most people identify Jupiter by its colorful surface and the presence of its Great Red Spot. This spot is actually a huge storm that has been occurring for hundreds of years. The gases in Jupiter's atmosphere are mostly hydrogen and helium, the same elements that make up the sun.



Jupiter is eleven times the width of Earth.

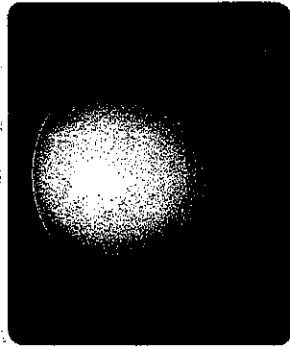
Saturn: Saturn is nearly a billion miles from the sun. Like Jupiter, it is a gas giant that is made up mainly of hydrogen and helium. Saturn is most famous for its rings. Saturn has over fifty moons, and some of them may have the ability to support life.



Saturn's rings are made up of chunks of rock and ice.

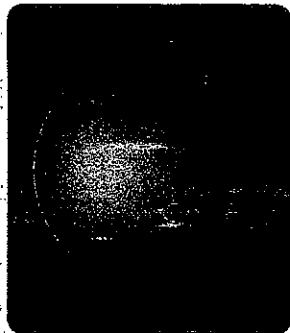
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Uranus: Uranus is one of the two ice giants. It is made up mostly of water, methane gas, and other materials. Methane is what gives Uranus its blue-green color. Uranus is a very cold and windy planet. Wind speeds can reach up to 560 miles per hour! Like Saturn, Uranus has rings. One characteristic that makes Uranus unique is that it tilts almost completely on its side as it orbits the sun.



Uranus as seen from *Voyager 2*. What gives Uranus its blue-green color?

Neptune: The other ice giant is Neptune, which is also the farthest planet from the sun. Neptune is very dark, windy, and cold. Its winds can reach up to 1,200 miles per hour. Like Uranus and the gas giants, Neptune does not have a solid surface. Its structure is similar to Uranus, with a swirling mixture of water, methane gas, and other materials. Some scientists think there may be a hot ocean deep under Neptune's clouds of gases.

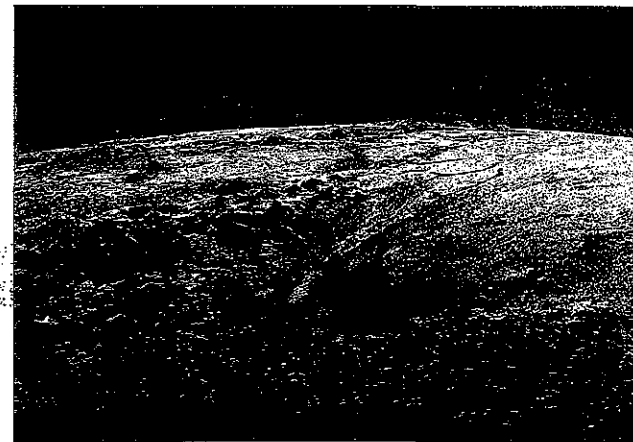


Why are there no rocky features to be seen on Neptune's surface?

Our Solar System Contains Other Space Objects

The sun and planets and their moons are major parts of the solar system. But the solar system contains other objects, too. Some of these objects are dwarf planets. A dwarf planet has some, but not all, of the characteristics of regular planets. Pluto is one example of a dwarf planet. Scientists have identified and named five dwarf planets. They are farther from the sun than Neptune.

Asteroids, meteors, and comets are also part of our solar system, all orbiting the sun and interacting with the planets. These objects range in size from small particles to large bodies that are hundreds of miles across. Comets contain ice and dust. When they are close to the sun, they form a "tail" of gas and other material.



A NASA spacecraft called *New Horizons* captured this photo of Pluto's icy mountains and frozen plains.