



Upshur County Snow Packet #5
8th Grade
2018-2019

Just because we're out of school is "sNOw" reason to stop learning!

Instructions: (Read ALL instructions carefully.)

- Packets will be passed out during Advisory.
- Complete Snow Packet #5 when instructed by Parent Link.
- Put the following heading on each assignment:
 - * Your Name
 - * Teacher's Name for that Subject
 - * Class Period
- Return the completed Day 5 assignments to your subject teacher within two days of returning to school.
- Students with an IEP, who are in self-contained classes, will receive their assignments from their Special Education teacher. If they lose their assignments, they will do the packet that is posted on the school's website for their grade level.

Day 5:

Use the list below to check off your assignments:

Day 5:

- ___ Math: Picture Graph (1 Page)
- ___ ELA (Reading and English): The Men That Don't Fit In (3 Pages)
- ___ Science: The Solar System (8 Pages)
- ___ Social Studies: Vocabulary Scramble (1 Page)

Snow Packet

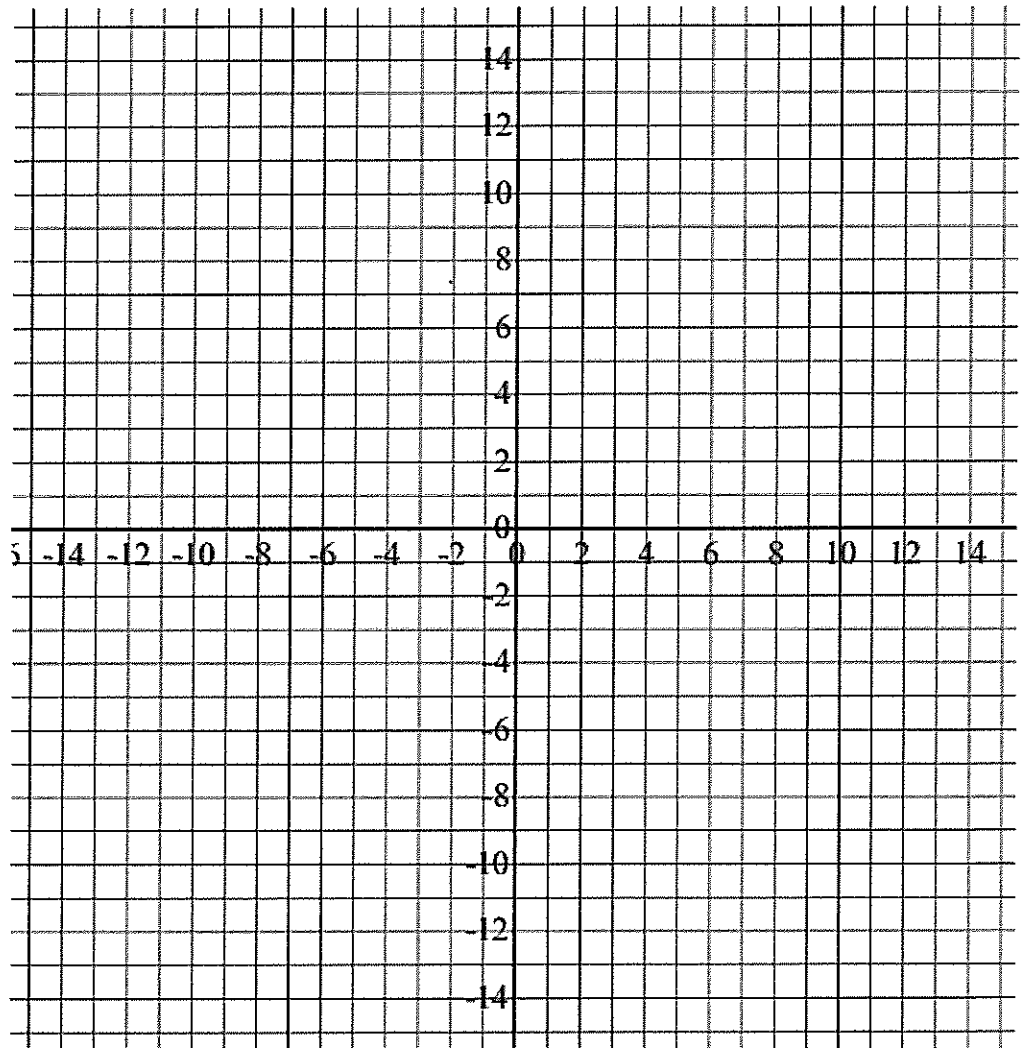
Picture Graph

Day 5

Begin at the starting point and connect the points in order with line segments.

Starting Point

- (4, -10) $(-1\frac{1}{2}, 2)$
- (4, -7) $(-1\frac{1}{2}, 4)$
- $(3\frac{1}{2}, -4)$ $(-2, 5)$
- $(1\frac{1}{2}, 2)$ $(-3, 5)$
- $(1\frac{1}{2}, 4)$ $(-4, 4)$
- (2, 5) $(-5, 1)$
- (3, 5) $(-4\frac{1}{2}, 3)$
- (4, 4) $(-4\frac{1}{2}, 8)$
- (5, 1) $(-5, 10)$
- $(4\frac{1}{2}, 3)$ $(-6, 12)$
- $(4\frac{1}{2}, 8)$ $(-7, 13)$
- (5, 10) $(-9, 14)$
- (6, 12) $(-11, 14)$
- (7, 13) $(-13, 13)$
- (9, 14) $(-14, 10)$
- (11, 14) $(-14\frac{1}{2}, 6)$
- (13, 13) $(-14\frac{1}{2}, 1)$
- (14, 10) $(-14, -3)$
- $(14\frac{1}{2}, 6)$ $(-13, -7)$
- $(14\frac{1}{2}, 1)$ $(-13, -10)$
- (14, -3) $(-11, -10\frac{1}{2})$
- (13, -7) $(-6, -10\frac{1}{2})$
- (13, -10) $(-4, -10)$
- $(11, -10\frac{1}{2})$ **End**
- $(6, -10\frac{1}{2})$
- (4, -10)
- (3, -11)
- (1, -12)
- (-1, -12)
- (-3, -11)
- (-4, -10)
- (-4, -7)
- $(-3\frac{1}{2}, -4)$



ELA Snow Packet Directions – 8th Grade

- 1.) Read the article.
- 2.) Answer the comprehension questions.
- 3.) Use the ACE method
 - A-** Answer and restate the question
 - C-** Cite evidence and use quotation marks when it is a direct quote
 - E-** Explain the evidence in your own words
- 4.) Using the ACE method, answer the short answers in at least 1-2 paragraphs with at least 5-8 sentences.
- 5.) Return the ELA packet to your English teacher within 2 days of your return.

ROBERT SERVICE

Robert Service was born in Preston, Lancashire, England. His parents were Scottish. He spent his childhood in Scotland. He attended the University of Glasgow. His vagabond career took him throughout the world. He worked at a wide variety of jobs, from cook to clerk, from hobo to correspondent. He emigrated to Canada in 1894. He took a job with the Canadian Bank of Commerce. He was stationed for eight years in Whitehorse, Yukon. It was while in the Yukon that he published his first book of poems, *Songs of a Sourdough*. It was to make him famous.

Writing became a career. He was a correspondent for *The Toronto Star* during the Balkan Wars of 1912–1913. He was an ambulance driver and correspondent in France during World War I. He settled in France after World War I and married a French woman.

THE MEN THAT DON'T FIT IN

by Robert W. Service

There's a race of men that don't fit in,
A race that can't stay still;
So they break the hearts of kith and kin,
And they roam the world at will.
They range the field and they rove the flood,
And they climb the mountain's crest;
Theirs is the curse of the gypsy blood,
And they don't know how to rest.

If they just went straight they might go far;
They are strong and brave and true;
But they're always tired of the things that are,
And they want the strange and new.
They say: "Could I find my proper groove,
What a deep mark I would make!"
So they chop and change, and each fresh move
Is only a fresh mistake.

And each forgets, as he strips and runs
With a brilliant, fitful pace,
It's the steady, quiet, plodding ones
Who win in the lifelong race.
And each forgets that his youth has fled,
Forgets that his prime is past,
Till he stands one day, with a hope that's dead,
In the glare of the truth at last.

He has failed, he has failed; he has missed his chance;
He has just done things by half.
Life's been a jolly good joke on him,
And now is the time to laugh.
Ha, ha! He is one of the Legion Lost;
He was never meant to win;
He's a rolling stone, and it's bred in the bone;
He's a man who won't fit in.



The Solar System

The Outer Planets

..... Before You Read

What do you think? Read the two statements below and decide whether you agree or disagree with them. Place an A in the Before column if you agree with the statement or a D if you disagree. After you've read this lesson, reread the statements to see if you have changed your mind.

Before	Statement	After
	5. The outer planets are also called the gas giants.	
	6. The atmospheres of Saturn and Jupiter are mainly water vapor.	

Key Concepts

- How are the outer planets similar?
- What are the outer planets made of?

..... Read to Learn

The Gas Giants

The outer planets are Jupiter, Saturn, Uranus, and Neptune. The figure below shows the sizes of the outer planets compared to each other and to Earth. As you can see, their sizes are much greater than Earth's size. The outer planets are mostly made of hydrogen and helium. These elements are usually gases on Earth. Gases change to liquids at high pressure. This property of gases affects the outer planets. The outer planets are called the gas giants.

The huge size of each outer planet creates strong gravitational forces. These gravitational forces put so much pressure on the atmosphere of each planet that the gases change to liquids. As a result, the outer planets are mostly liquid inside. An outer planet has a thick gas and liquid layer covering a small solid core.

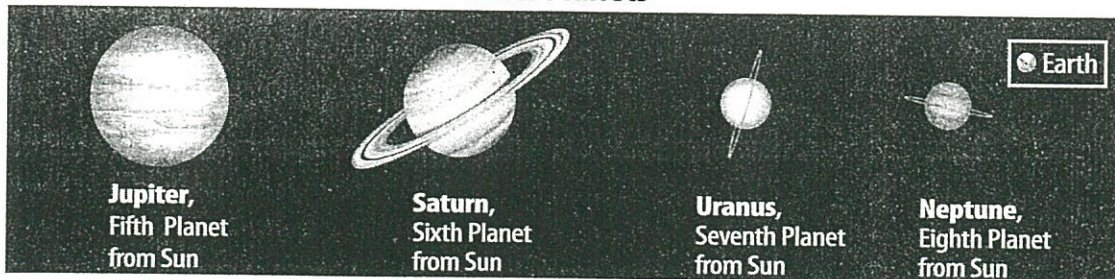
Study Coach

Create a Quiz Write a quiz question for each paragraph. Answer the question with information from the paragraph. Refer to these questions and answers as you review the chapter.

Visual Check

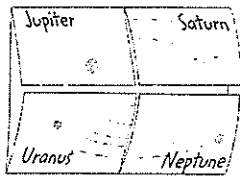
1. Compare Which outer planet is the largest?

Outer Planets



FOLDABLES®

Make a four-door book to organize your notes on the outer planets.



✓ Key Concept Check

2. Describe what makes up each of Jupiter's three distinct layers.

Math Skills $\frac{\times}{\div}$

A ratio is a quotient—it is one quantity divided by another. Ratios can be used to compare distances.

For example, Jupiter is 5.20 AU from the Sun. Neptune is 30.05 AU from the Sun. Divide the larger distance by the smaller distance:

$$\frac{30.05 \text{ AU}}{5.20 \text{ AU}} = 5.78$$

Neptune is 5.78 times farther from the Sun than Jupiter is.

3. Use Ratios The figure on the right shows that Saturn is 9.58 AU from the Sun. Jupiter is 5.20 AU from the Sun. How many times farther from the Sun is Saturn than Jupiter?

Jupiter

Jupiter is the largest planet in the solar system. Its diameter is more than 11 times the diameter of Earth. Its mass is more than twice the mass of all the other planets combined. Jupiter takes almost 12 Earth years to complete one orbit of the Sun. Yet it spins faster than any other planet. Its period of rotation is less than 10 hours. Jupiter has a ring system.

Jupiter's Atmosphere

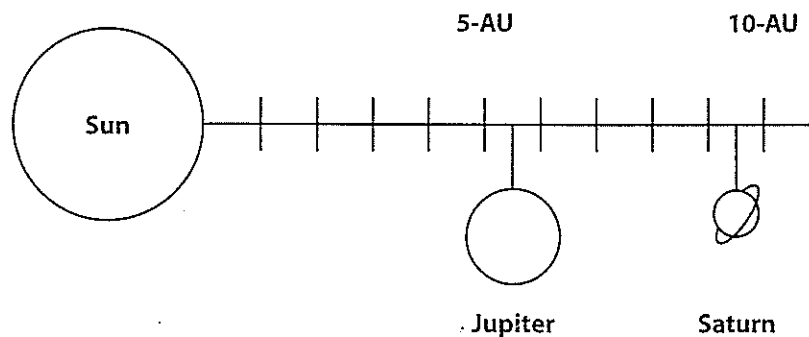
The atmosphere on Jupiter is about 90 percent hydrogen and 10 percent helium. The thickness of the atmosphere is about 1,000 km. The atmosphere holds several layers of dense, colorful clouds. Jupiter's fast rotation stretches the clouds into swirling bands of color. The Great Red Spot on the planet's surface is a storm of swirling gases.

Jupiter's Structure

Jupiter is about 80 percent hydrogen and 20 percent helium. Swirling gas covers a thick layer of liquid hydrogen over a solid core. The pressure at 1,000 km below the outer edge of the cloud layer is great. There, the hydrogen gas turns into a liquid. The core is probably rock and iron. ✓

The Moons of Jupiter


Jupiter has at least 63 moons, more than any other planet. In 1610, Galileo Galilei first spotted Jupiter's four largest moons. As a result, *the four largest moons of Jupiter—Io, Europa, Ganymede, and Callisto—are known as the Galilean moons.* Collisions between Jupiter's moons and meteorites likely created the particles that make up the planet's faint rings.



Saturn

The figure above shows the distances from the Sun of the fifth and sixth planets. Saturn is the sixth planet from the Sun. Like Jupiter, Saturn rotates rapidly and has bands of clouds. Saturn is about 90 percent hydrogen and 10 percent helium. It is the least-dense planet.


Saturn's Structure

Saturn is made up mostly of hydrogen and helium. Like Jupiter, Saturn's structure has an outer layer of gas, a thick layer of liquid hydrogen, and a solid core. Saturn's seven bands of rings are the largest in the solar system. The main ring system is more than 70,000 km wide. However, the ring system is likely less than 30 m thick. Ice particles mainly make up the rings. The particles range in size from specks to chunks as large as a house. 

Saturn's Moons

Saturn has at least 60 moons. Its five largest moons are Titan, Rhea, Dione, Iapetus, and Tethys. Most of Saturn's moons are chunks of ice that are less than 10 km in diameter. Titan, the largest moon, is the only moon in the solar system with a dense atmosphere. In 2005, the *Huygens* (HOY guns) space probe landed on Titan.

Uranus

Uranus is the seventh planet from the Sun. It has narrow, dark rings. The diameter of Uranus is about four times that of Earth. The *Voyager 2* space probe explored the planet when it flew by Uranus in 1986. The deep atmosphere of Uranus is mostly hydrogen and helium. There is also a small amount of methane. Beneath the atmosphere is a thick, slushy layer of water, ammonia, and other materials. Uranus might also have a solid, rocky core. 


Uranus's Axis and Moons

The sideways tilt of Uranus's axis of rotation is different from those of the other planets. Uranus's axis is tilted so that the planet moves around the Sun like a rolling ball.

Uranus has at least 27 moons. The two largest moons, Titania and Oberon, are much smaller than Earth's moon. Titania has an icy, cracked surface. At one time, an ocean might have covered Titania's surface.

Neptune

Like Uranus, Neptune has an atmosphere of mostly hydrogen and helium, with a little methane. Like Uranus, Neptune's interior is frozen water and ammonia with a core of rock and iron.

Neptune has at least 13 moons and faint dark rings. Triton (TRI tun) is Neptune's largest moon. Triton is made of rock, with an icy outer layer. Triton's surface is frozen nitrogen. Geysers on the surface erupt nitrogen gas. 

Key Concept Check

4. Describe what makes up Saturn and its ring system.

Key Concept Check

5. Identify the substances that make up the atmosphere and the thick, slushy layer on Uranus.

Key Concept Check

6. Compare How do the atmosphere and interior of Neptune compare with those of Uranus?

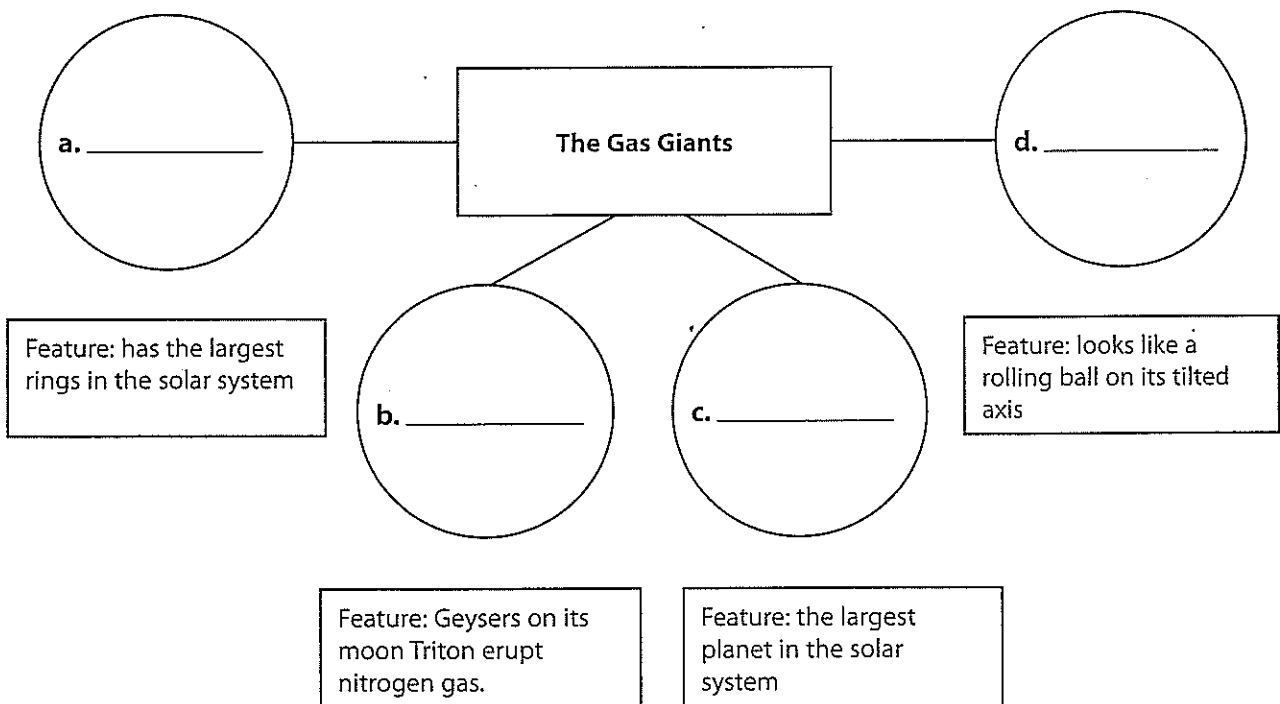
..... **After You Read**

Mini Glossary

Galilean moons: the four largest moons of Jupiter—Io, Europa, Ganymede, and Callisto

1. Review the term and its definition in the Mini Glossary. Write a sentence that explains how this group of moons got its name.

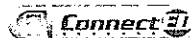
2. Fill in the diagram below to match the name of each outer planet with its key feature.
Outer Planets: Jupiter, Saturn, Neptune, and Uranus



3. How are the outer planets similar?

What do you think NOW?

Reread the statements at the beginning of the lesson. Fill in the After column with an A if you agree with the statement or a D if you disagree. Did you change your mind?



Log on to ConnectED.mcgraw-hill.com and access your textbook to find this lesson's resources.

END OF LESSON

The Solar System

Dwarf Planets and Other Objects

..... Before You Read

What do you think? Read the two statements below and decide whether you agree or disagree with them. Place an A in the Before column if you agree with the statement or a D if you disagree. After you've read this lesson, reread the statements to see if you have changed your mind.

Before	Statement	After
	7. Asteroids and comets are mainly rock and ice.	
	8. A meteoroid is a meteor that strikes Earth.	

Key Concepts

- What is a dwarf planet?
- What are the characteristics of comets and asteroids?
- How does an impact crater form?

..... Read to Learn

Dwarf Planets

The International Astronomical Union (IAU) defines a dwarf planet as an object that orbits a star. When a dwarf planet formed, there was enough mass and gravity for it to form a sphere. A dwarf planet has objects similar in mass orbiting nearby or crossing its orbital path. Astronomers classify Pluto, Ceres, Eris, Makemake, and Haumea (how MAY ah) as dwarf planets. Pluto was once considered to be a planet, but now it has the status of a dwarf planet.

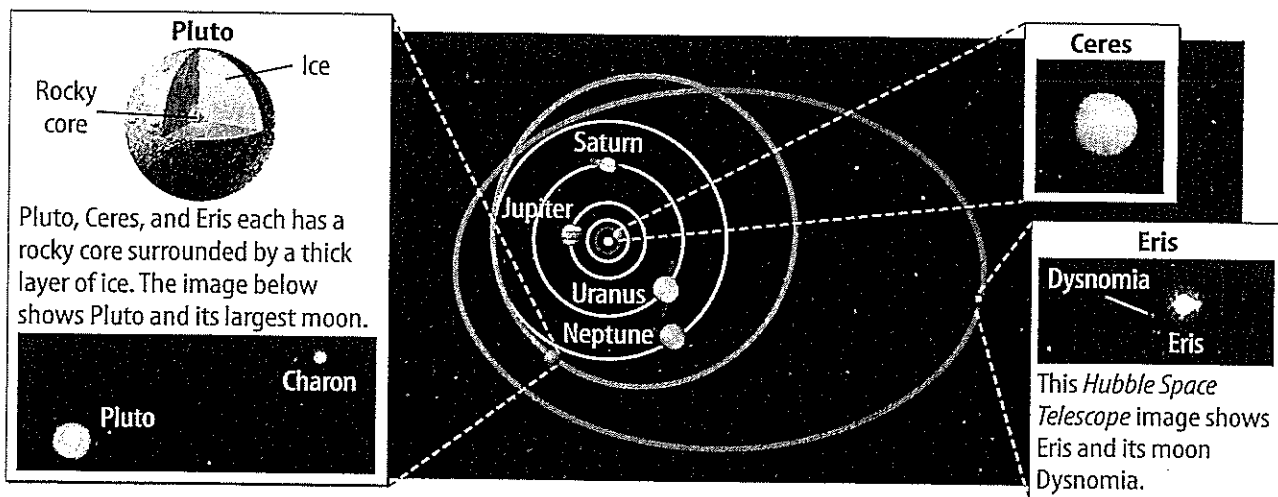
All dwarf planets are smaller than Earth's moon. The figure below locates Ceres, Pluto, and Eris. These dwarf planets each have a rocky core surrounded by a thick layer of ice.

Mark the Text

Define Words Skim the lesson and underline words that you do not know. Then read the lesson to see if you can define those words. If you cannot, look up the word and write its definition in the margin to use as you study.

Visual Check

1. Interpret Which dwarf planet orbits closest to Earth?



FOLDABLES

Make a layered book to organize your notes on other objects in the solar system.

Dwarf Planets
Asteroids
Comets
Meteoroids

Reading Check

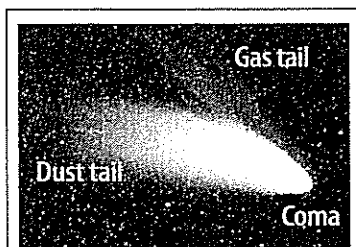
2. State Which dwarf planet is the largest? Which dwarf planet is the smallest?

Key Concept Check

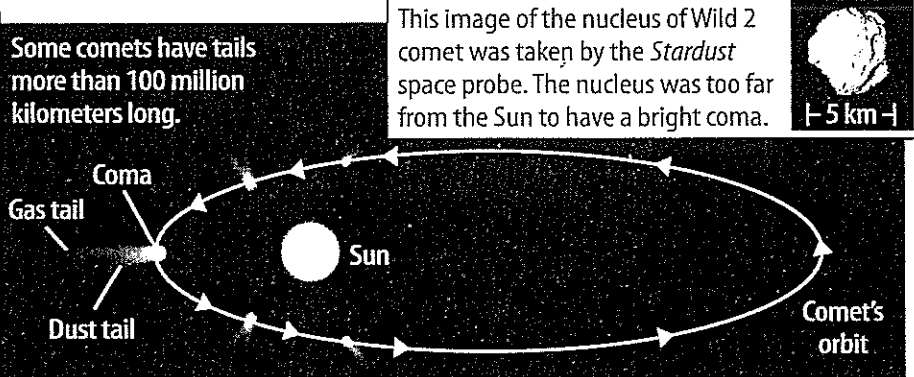
3. Specify Where do the orbits of most asteroids occur?

Visual Check

4. Identify In the figure, highlight the comet's elliptical orbit.



The visible parts of a comet are the coma, the dust tail, and the gas tail. The coma surrounds the comet's nucleus.



Ceres

Ceres is the smallest dwarf planet. It orbits the Sun in the asteroid belt. It might have a rocky core. A thin, dusty crust covers a layer of water ice that surrounds the core.

Pluto

Pluto is about two-thirds the size of the Moon. It is so far from the Sun that its period of revolution is about 248 Earth years. The surface of Pluto is so cold that it is covered with frozen nitrogen. Its average temperature is -230°C . Pluto has three known moons: Charon, Hydra, and Nix. Charon is Pluto's largest moon.

Eris

Eris is the largest dwarf planet. It was discovered in 2003. Eris takes about 557 Earth years to complete one orbit around the Sun. Dysnomia (dis NOH mee uh) is the only known moon of Eris.

Makemake and Haumea

Makemake and Haumea, named dwarf planets in 2008, orbit in the Kuiper (KI puh) belt region of the solar system. Makemake is one of the largest objects in the Kuiper belt.


Asteroids

Recall that asteroids are chunks of rock and ice that never clumped together to form a planet. Most asteroids orbit the Sun in the asteroid belt. The asteroid belt is between the orbits of Mars and Jupiter. There are hundreds of thousands of asteroids. Pallas is the largest asteroid. Some astronomers suggest that asteroids are very old objects left over from the formation of the solar system.

Comets

Comets are mixtures of particles of rock, ice, and dust. The particles' gravity holds them loosely together. As shown below, comets orbit the Sun in stretched-out elliptical orbits.

The Structure of Comets

The solid, inner part of a comet is its nucleus. As a comet moves closer to the Sun, it gets hotter. Higher temperatures change the ice in the comet into a gas. Energy from the Sun pushes some of the gas and dust away from the comet's nucleus and makes it glow. This produces the comet's bright tail and glowing nucleus, called a coma. The coma surrounds the comet's nucleus. When energy from the Sun strikes the gas and dust in the comet's nucleus, it can create a two-part tail—a dust tail and a gas tail. The gas tail always points away from the Sun. 


Short-Period and Long-Period Comets

A short-period comet takes less than 200 Earth years to orbit the Sun. Most short-period comets come from the Kuiper belt. The Kuiper belt extends from about the orbit of Neptune to about 50 AU from the Sun.

A long-period comet takes more than 200 Earth years to orbit the Sun. Long-period comets come from an area at the outer edge of the solar system called the Oort cloud. The Oort cloud surrounds the solar system and extends about 100,000 AU from the Sun. Some long-period comets take millions of years to orbit the Sun.

Meteoroids

Millions of particles called meteoroids enter Earth's atmosphere every day. A **meteoroid** is a small, rocky particle that moves through space. Most meteoroids are only about as big as a grain of sand. As a meteoroid passes through Earth's atmosphere, it creates friction. The friction makes the meteoroid and the air around it hot enough to glow. A **meteor** is a streak of light in Earth's atmosphere made by a glowing meteoroid. Most meteoroids burn up in Earth's atmosphere. Some are large enough that they reach Earth's surface before they burn up completely. When this happens, the meteoroid is then called a meteorite. A **meteorite** is a meteoroid that strikes a planet or a moon.

When a large meteorite strikes a moon or planet, it often forms a bowl-shaped impact crater. An **impact crater** is a round depression formed on the surface of a planet, moon, or other space object by the impact of a meteorite. Earth's surface has more than 170 impact craters. 

Key Concept Check

5. Describe the characteristics of a comet.

Think it Over

6. Apply If you observed a long-period comet, would you ever be able to observe it again? Explain.

Key Concept Check

7. Summarize What causes an impact crater to form?

..... After You Read

Mini Glossary

impact crater: a round depression formed on the surface of a planet, moon, or other space object by the impact of a meteorite

meteor: a streak of light in Earth's atmosphere made by a glowing meteoroid

meteorite: a meteoroid that strikes a planet or a moon

meteoroid: a small, rocky particle that moves through space

1. Review the terms and their definitions in the Mini Glossary. Write two sentences that explain how the term *meteoroid* relates to the term *meteor*.

2. Write the name of each dwarf planet next to its description in the chart. You will need to write some names more than once.

Description	Dwarf Planet
a. Frozen nitrogen covers its surface.	
b. Largest dwarf planet	
c. Smallest dwarf planet	
d. Orbits in the Kuiper belt (two names)	
e. One of the largest objects in the Kuiper belt	
f. Orbits in the asteroid belt	
g. A thin, dusty crust covers its ice layer.	

3. Describe the characteristics of a dwarf planet.

What do you think NOW?

Reread the statements at the beginning of the lesson. Fill in the After column with an A if you agree with the statement or a D if you disagree. Did you change your mind?



Log on to ConnectED.mcgraw-hill.com and access your textbook to find this lesson's resources.



Name: _____

Vocabulary Scramble

Directions: Use the definitions to help you unscramble the vocabulary words. Write the unscrambled word in the space provided. *Use the vocabulary words in Chapter 5 and Chapter 13 to help you. You may also use the Internet, if available.*

1. The branch of government responsible for writing laws
AEEGIILLSTV
2. To take a legal case to a higher court for rehearing
AAELPP
3. Required to register to vote, the promisor had to swear that he had not taken up arms against the United States
ESTT AHOT
4. The system or established form of rule of a community, state, or nation
EEGMNNTORTV
5. A document serving as proof of a debt and requiring the repayment of the money with interest
BDNO
6. To lose as a penalty
EFFIORT
7. The branch of government responsible for making sure that the laws are enforced
CEEEITUVX
8. Every other year
BEEIILNN
9. The period of rebuilding after the Civil War
CCEINNOORRSTTU
10. To refuse to approve
EOTV
11. The branch of government that consists of the courts
ACDIIJLU
12. To take away the right to vote
ACDEFHIINRSS
13. Used on all proclamations from the governor, on certificates of incorporation, and on other records from the governor's office
AEGRT AELS