



Lesson Plan: The Solar System

Grade Level: 3

Subject: Earth Science

Duration: 45–60 min

SD1: Develop an understanding of the cyclical changes controlled by energy from the sun and by Earth's position and motion in our solar system.

Learning Objectives

By the end of this lesson, students will be able to:

- **Identify** the major components of the solar system, including the Sun, planets, moons, and asteroids
- **Distinguish** between the inner terrestrial planets and the outer gas giants



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- **Outer planets:** The four gas giants farthest from the Sun: Jupiter, Saturn, Uranus, and Neptune.

Materials Needed: (all links are included in this PDF)

- Study Guide: The Solar System (<https://newpathworksheets.com/api/guide/study-guide-science-grade-3-the-solar-system-1.pdf>)



- Activity Lesson: Our Solar System (<https://newpathworksheets.com/api/activity-lesson/activity-lesson-science-grade-3-the-solar-system-1-our-solar-system-4.pdf>)
- Practice Worksheet: The Solar System (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-1.pdf>)
- Assessment Quiz: The Solar System (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-3.pdf>)
- Vocabulary Worksheet: The solar system (<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-3-the-solar-system-1-1.pdf>)

Lesson Procedure



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- Distribute the Vocabulary Worksheet and guide students to match terms like 'Plasma', 'Asteroid', and 'Solar System' to their definitions. (<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-3-the-solar-system-1-1.pdf>)
- Review the answers as a class to ensure understanding of the terminology.

Step 4: Independent Practice (20 minutes)



- Students complete the 'Our Solar System' activity, coloring and labeling the planets in order. (<https://newpathworksheets.com/api/activity-lesson/activity-lesson-science-grade-3-the-solar-system-1-our-solar-system-4.pdf>)
- Assign the Inner/Outer Planets worksheet to reinforce facts about Mercury, Venus, Earth, and Mars. (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-1.pdf>)

Step 5: Assessment (10 minutes)

- Administer the Solar System Quiz to evaluate student retention of planet names, order, and characteristics. (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-3.pdf>)
- Review the quiz results to identify any areas needing re-teaching.

Differentiation Strategies



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Complete List of Available Resources:

- Topic Page: The Solar System (<https://newpathworksheets.com/science/grade-3/the-solar-system-1>)
- Study Guide: The Solar System (<https://newpathworksheets.com/api/guide/study-guide-science-grade-3-the-solar-system-1.pdf>)
- Activity Lesson: Our Solar System (<https://newpathworksheets.com/api/activity-lesson/activity-lesson-science-grade-3-the-solar-system-1-our-solar-system-4.pdf>)



- Worksheet: General Practice (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-0.pdf>)
- Worksheet: Inner and Outer Planets (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-1.pdf>)
- Worksheet: Outer Planets (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-2.pdf>)
- Worksheet: Assessment Quiz (<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-3-the-solar-system-1-3.pdf>)
- Vocabulary Worksheet (<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-3-the-solar-system-1-1.pdf>)



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THE SOLAR SYSTEM

The Sun is a gigantic star that is made up of hot gases called **plasma**. The **solar system** includes the Sun, planets, the moons of each planet, as well as other objects that revolve around the Sun.



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The second closest planet to the Sun is **Venus**. Venus has no moons and is also very hot and a rocky planet.



Earth is the third planet from the Sun and is where we live. Earth is the only planet in the solar system that can support human life. Earth has water, atmosphere that contains oxygen and carbon dioxide, and just the right temperatures in order for things to live on Earth.

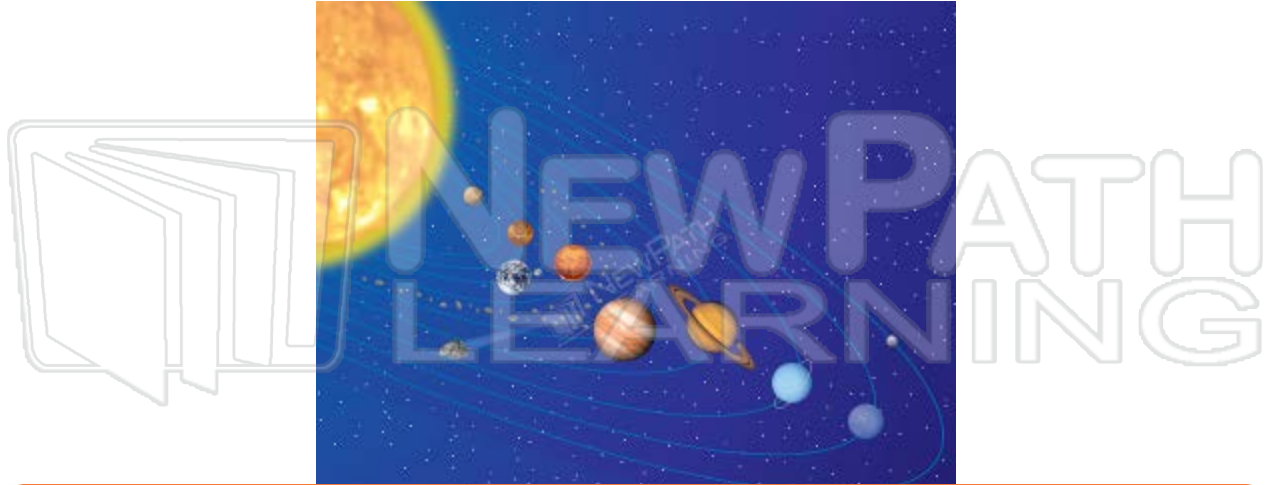


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The **asteroid belt** is located between Mars and Jupiter. It contains thousands of asteroids. Asteroids are pieces of rock that orbit around the Sun.



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The sixth planet from the Sun is **Saturn**. Saturn has rings made of ice and rock that circle around the planet.



The seventh planet from the Sun is **Uranus**. Uranus has 26 moons.



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Name _____ Class _____ Date _____

The **solar system** includes the **Sun**, **planets**, the **moons** of each planet, as well as other objects that revolve around the Sun.

A **planet** is a large body that **revolves** around the Sun in a path called an **orbit**. There are 8 known planets, plus a dwarf planet, Pluto.

The planets are divided into two groups called inner and outer planets based on their distance from the Sun. The **inner planets** include Mercury, Venus, Earth and Mars. The **outer planets** include Jupiter, Saturn, Uranus and Neptune.



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asteroid belt

asteroid

Neptune

The **asteroid belt** is located between Mars and Jupiter. **Asteroids** are small pieces of rock that orbit around the Sun.



Our Solar System

Sci
C

Name _____ Class _____ Date _____

Color the planets. Cut them out and use them to create a Solar System poster or mobile.



Mercury



Venus



Earth & Moon

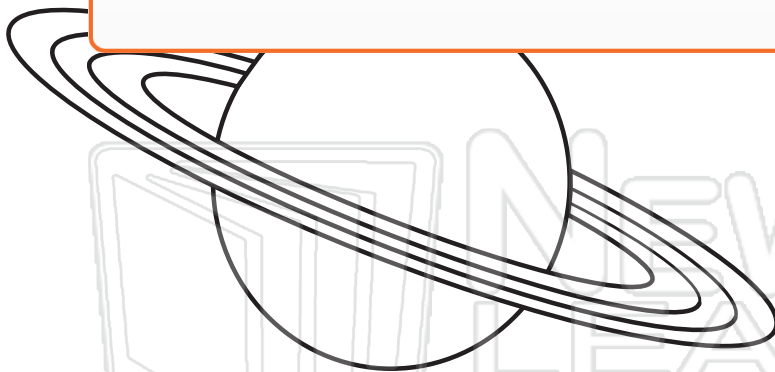


Mars

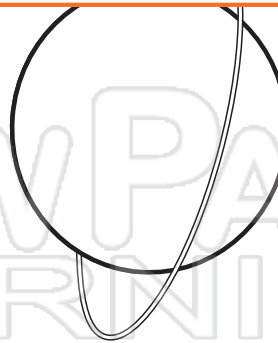


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Saturn



Uranus



Neptune



Name _____ Class _____ Date _____

Name the planets in order. Research and write a fact about each one.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

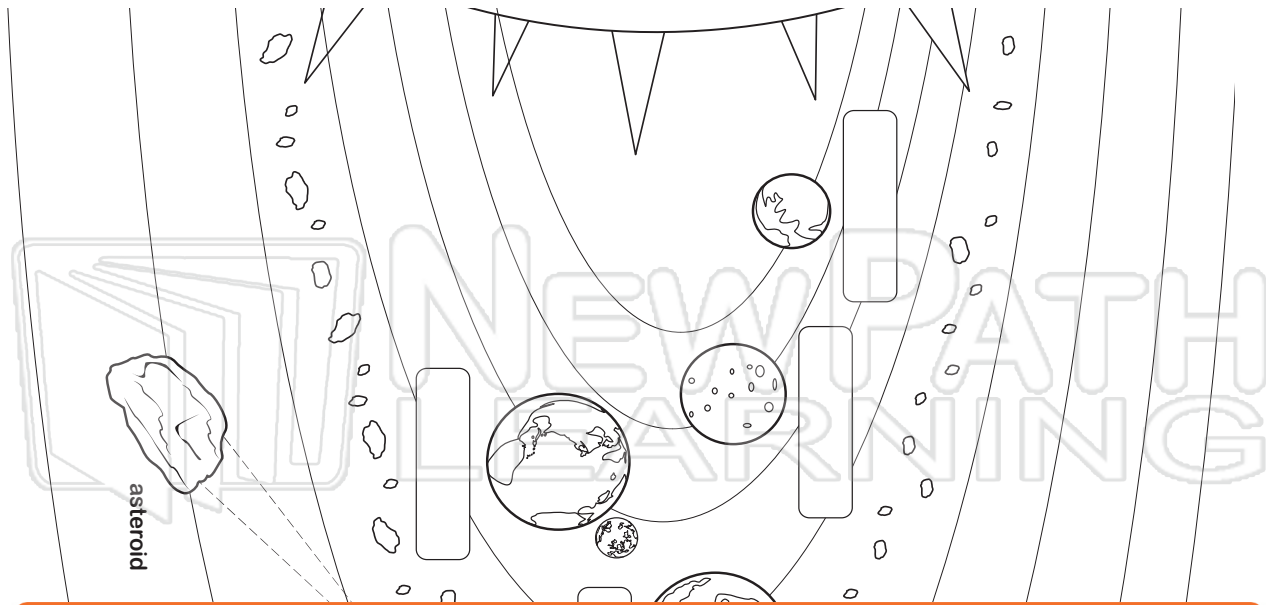


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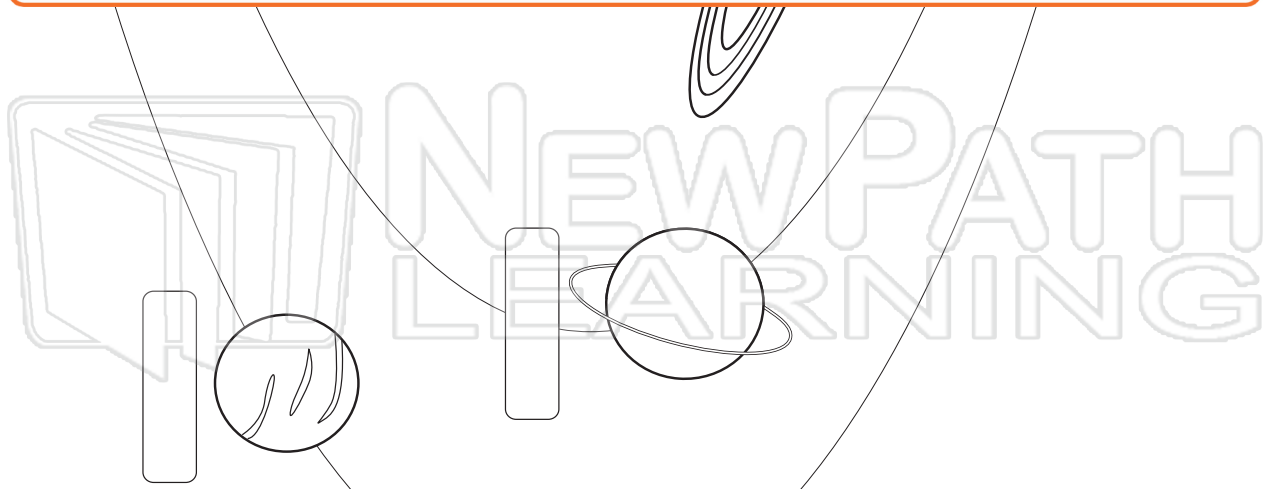
Name _____ Class _____ Date _____



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Color the Solar System. Label the planets.





Answer Key

Name the planets in order. Research and write a fact about each one.

1. **Mercury. Open-ended.**

2. **Venus. Open-ended.**

3. **Earth. Open-ended.**

4.

5.

6.



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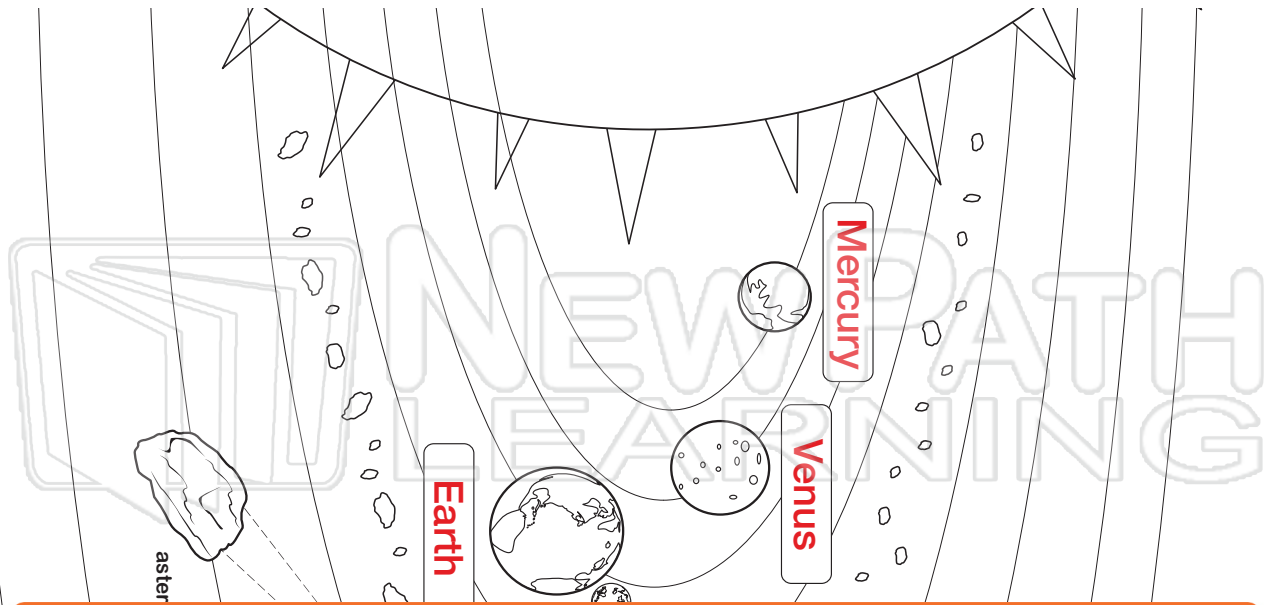
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7. **Uranus. Open-ended.**

8. **Neptune. Open-ended.**

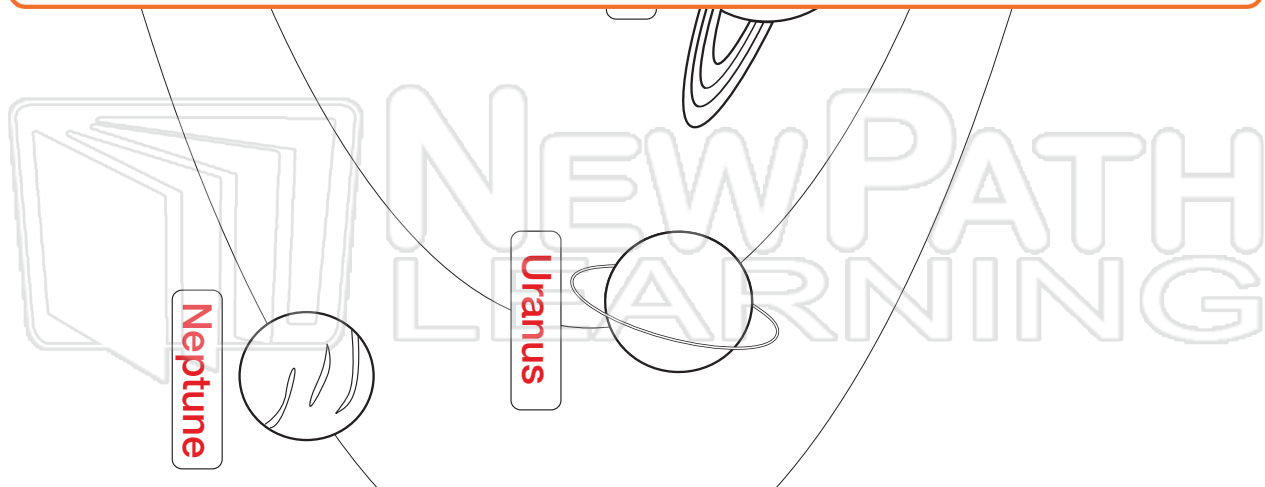


Name _____ Class _____ Date _____



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Color the Solar System. Label the planets.

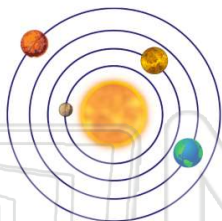


Name _____ Class _____ Date _____

1

What is the **second closest planet** to the Sun?

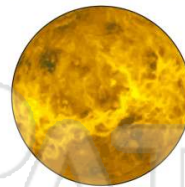
- A Mercury
- B Earth
- C Venus
- D Mars



2

Venus has _____ moons and is a very hot and rocky planet.

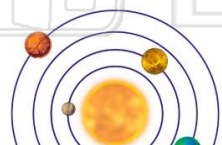
- A no
- B 2
- C 3
- D 4



3

What planet is the **third planet from the Sun**?

- A Mercury
- B Earth
- C Venus



4

Earth is the only planet in the solar system that can _____. Earth has **water**, an **atmosphere** that contains oxygen and carbon dioxide, and just the right **temperatures** for things to live.

- A have a moon



5



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7

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- D small pieces of rock that orbit around the Sun



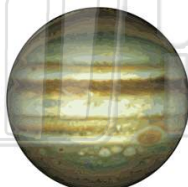
- D Neptune



9

Jupiter is the **smallest planet** in the solar system.

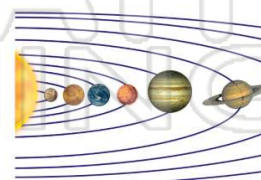
- A true
- B false



10

The **sixth planet from the Sun** is _____.

- A Saturn
- B Jupiter
- C Neptune
- D Pluto



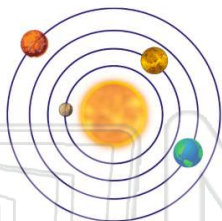


Name _____ Class _____ Date _____

1

What is the **second closest planet** to the Sun?

- A Mercury
- B Earth
- C Venus
- D Mars

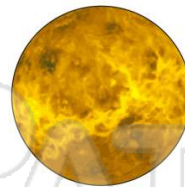


C

2

Venus has _____ moons and is a very hot and rocky planet.

- A no
- B 2
- C 3
- D 4

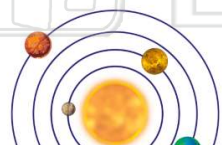


A

3

What planet is the **third planet from the Sun**?

- A Mercury
- B Earth
- C Venus



B

4

Earth is the only planet in the solar system that can _____. Earth has **water**, an **atmosphere** that contains oxygen and carbon dioxide, and just the right **temperatures** for things to live.

- A have a moon



D

5



C

PREVIEW

7

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C

- D small pieces of rock that orbit around the Sun



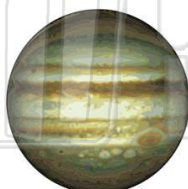
- D Neptune



9

Jupiter is the **smallest planet** in the solar system.

- A true
- B false

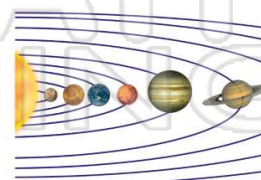


B

10

The **sixth planet from the Sun** is _____.

- A Saturn
- B Jupiter
- C Neptune
- D Pluto



A



The Solar System

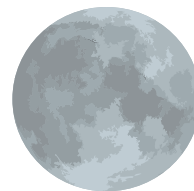
Sci
C

Name _____ Class _____ Date _____

- 1 The _____ is a **gigantic star** that is made up of hot gases called **plasma**.



- 6 Many planets have one or more moons. How many **moons** does **Earth** have?



- 2 Planets and other objects **revolve around the Sun**, each on a **path** called its _____.



- 7 _____ is often known as the "**red planet**" because of its red and orange surface.



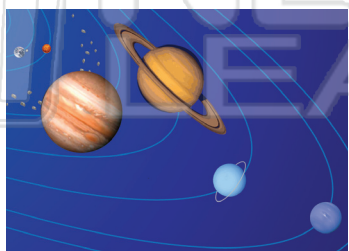
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t



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- 5 Name the **four outer planets**.



- 10 Which **outer planet** takes the **longest** time to **orbit the Sun**?



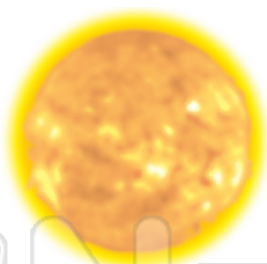


The Solar System - Answer Key

Sci
C

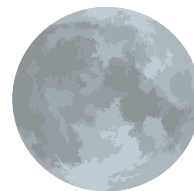
Name _____ Class _____ Date _____

- 1 The Sun is a **gigantic star** that is made up of hot gases called **plasma**.



- 6 Many planets have one or more moons. How many **moons** does **Earth** have?

one



- 2 Planets and other objects **revolve around the Sun**, each on a **path** called its **orbit**.

- 7 Mars is often known as the "**red planet**" because of its red and orange surface.



3

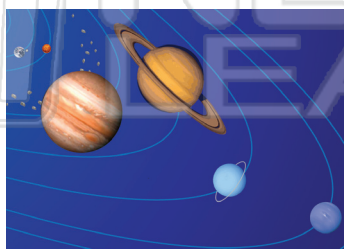


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- 5 Name the **four outer planets**.

Jupiter, Saturn, Uranus and Neptune



- 10 Which **outer planet** takes the **longest** time to **orbit the Sun**?

Neptune





Name _____ Class _____ Date _____

Match each of the following terms to its definition:

Solar system

Plasma

Orbit

Asteroid

Planet

1. - a large object that orbits around Sun



2. - the path that an electron follows as it moves around the nucleus of an atom; the elliptical path of the planet around the Sun



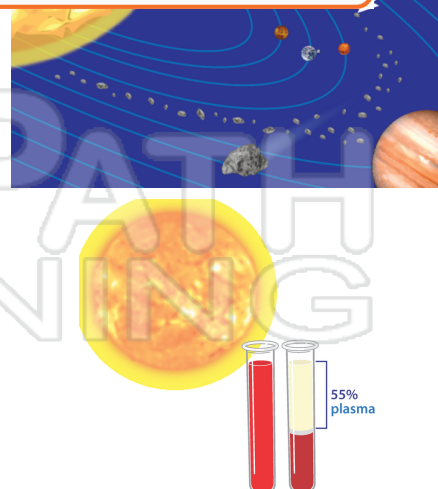
3. as well

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4. rock and gas planets

5. - hot gases that make up the Sun; also the liquid part of the blood





Name _____ Class _____ Date _____

Match each of the following terms to its definition:

Solar system

Plasma

Orbit

Asteroid

Planet

1. planet - a large object that orbits around Sun



2. orbit - the path that an electron follows as it moves around the nucleus of an atom, the elliptical path of the planets and other

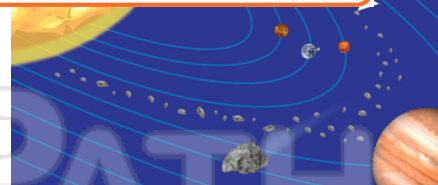
3. solar system - a system of celestial bodies, including planets, moons, and asteroids, that are bound together by gravity and orbit around a central star, such as the Sun.



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4. asteroid - a small, rocky body that orbits the Sun and is larger than a comet but smaller than a planet.



5. plasma - hot gases that make up the Sun; also the liquid part of the blood

