

Science Vocabulary HOT WORDS

→ SOL 4.7 + 4.8 the Math & Science Maestro

Name: _____
 Teacher: _____
 Date: _____

Solar System: Planets

Master your science vocabulary in 5 words or less! Study the terms below carefully!

Vocabulary Term	Hot Words
Mercury	Smallest planet, closest to sun
Jupiter	Largest planet
Earth	Only known planet with life
Astronomers	Study universe and solar system
Sun	Center of our solar system
MMVENUSJ	Planets from smallest to largest
<u>M</u> y <u>V</u> ery <u>E</u> xcellent <u>M</u> other <u>J</u> ust <u>S</u> erved <u>U</u> s <u>N</u> achos	Closest to farthest from sun
Terrestrial Planets	Rocky Planets (M V E M)
Gas Giants	Planets made of gases (J S U N)
Orbit	Means to go around, revolve
Dwarf Planets	Too small, irregular orbit
Asteroid belt	Separates terrestrials and gas giants

Draw and label the Sun and the 8 planets below using our memory tool:
 "(Sun) My Very Excellent Mother Just Served Us Nachos"

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Solar System: Sun, Moon Earth

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Vocabulary Term	Hot Words
Revolution	"To Move around an Object"
Rotation	"Object is spinning"
Earth's Axis	"Imaginary line through earth's center"
Earth's Distance from the sun	"150 million kilometers"
One revolution around the sun by earth =	"365 1/4 days (1 year)"
One revolution around the earth by the moon =	"About 30 days (1 month)"
Earth's tilt causes...	"Spring, summer, fall and winter"
The Sun	"Star, 4.6 billion years old"
Aristotle and Ptolemy believed...	"Earth was center of universe"
Copernicus and Galileo proved...	"Sun is center of universe"

DEFINITION MATCH

Can you match the term with the correct **HOT WORDS** definition?

Vocabulary Term

MMVENUSJ •

Earth •

MVEMJSUN •

Jupiter •

Mercury •

Sun •

Hot Words Definition

• **Center of our solar system**

• **Planets from smallest to largest**

• **Closest to farthest from sun**

• **Smallest planet, closest to sun**

• **Largest planet**

• **Only known planet with life**

WORD SCRAMBLE

Can you unscramble the words and then remember the definition?

Scrambled!	Unscrambled!	Definition
<i>soosrtramen</i>		
<i>broti</i>		
<i>asg ngsait</i>		
<i>Taestrreri Inpetas</i>		
<i>Wdafr nltapse</i>		

PROVE YOUR KNOWLEDGE

Can you use each of the following words in separate sentences or a paragraph?

Terrestrial Planets

Gas Giants

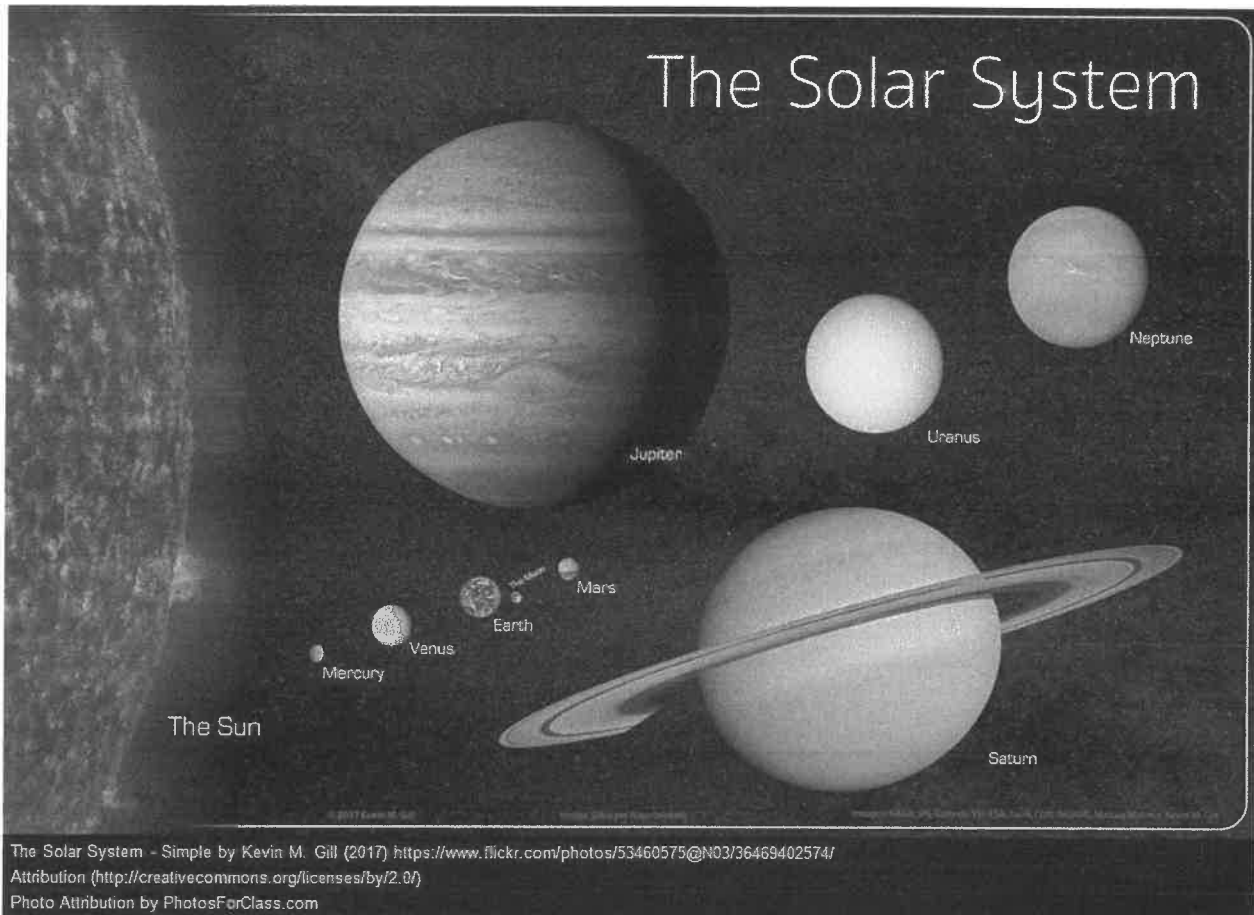
Asteroid Belt

Name _____

Date __/__/__

The solar system

Instructions: Read the text and fun facts about the solar system. Then, answer the following questions.



Our solar system consists of an average star, which we call the sun, and the planets that orbit around it. These planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and (previously) Pluto. However, Pluto was later found to not have all the required properties of a planet, because it was deemed too small.

But what is the definition of a planet? The definition of planet was set in 2006 by the International Astronomical Union (IAU). The IAU states that a planet in the Solar System is a celestial body that has three main properties: It is in orbit around the sun, it has a nearly round shape, and it has "cleared the neighborhood" around its orbit. In other words it has sucked up or pushed away any other objects to become the dominant body in the area.

Planet fun facts!

Mercury: The planet moves in a way that makes it seem like the sun moves backwards every day, but just for a little while.

Venus: It's the hottest planet of the solar system.

Earth: It is the only planet known to be inhabited.

Mars: It has two tiny moons.

Jupiter: It's the largest planet and has 79 moons, including the largest moon (called Ganymede) of the solar system, which is bigger than Mercury.

Saturn: Has a "great white storm" every Saturnian year.

Uranus: First planet to be discovered. It was visited only once in 1986 by spacecraft Voyager 2.

Neptune: Has the coldest temperatures (-220 degrees C) and the longest year (equal to 165 Earth years)

1. Which fact did you find most interesting?

2. What is the largest planet?

- A. Mars
- B. Neptune
- C. Earth
- D. Jupiter

3. Why was Pluto decided to not be a planet?

4. Who set the definition of a planet?

5. How many planets does our solar system have? Name them.

6. The sun is...

- a. A planet
- b. A star
- c. A moon
- d. None of the above

7. Which of these is not a property that makes a planet?

- a. It is in orbit around the sun
- b. It has a nearly round shape
- c. It has water in it
- d. It has "cleared the neighbourhood" around its orbit

8. What does the word "orbit" mean?

9. What does it mean when a planet has "cleared the neighbourhood" around its orbit?

10. Identify 5 verbs and three nouns in the text.

Verbs

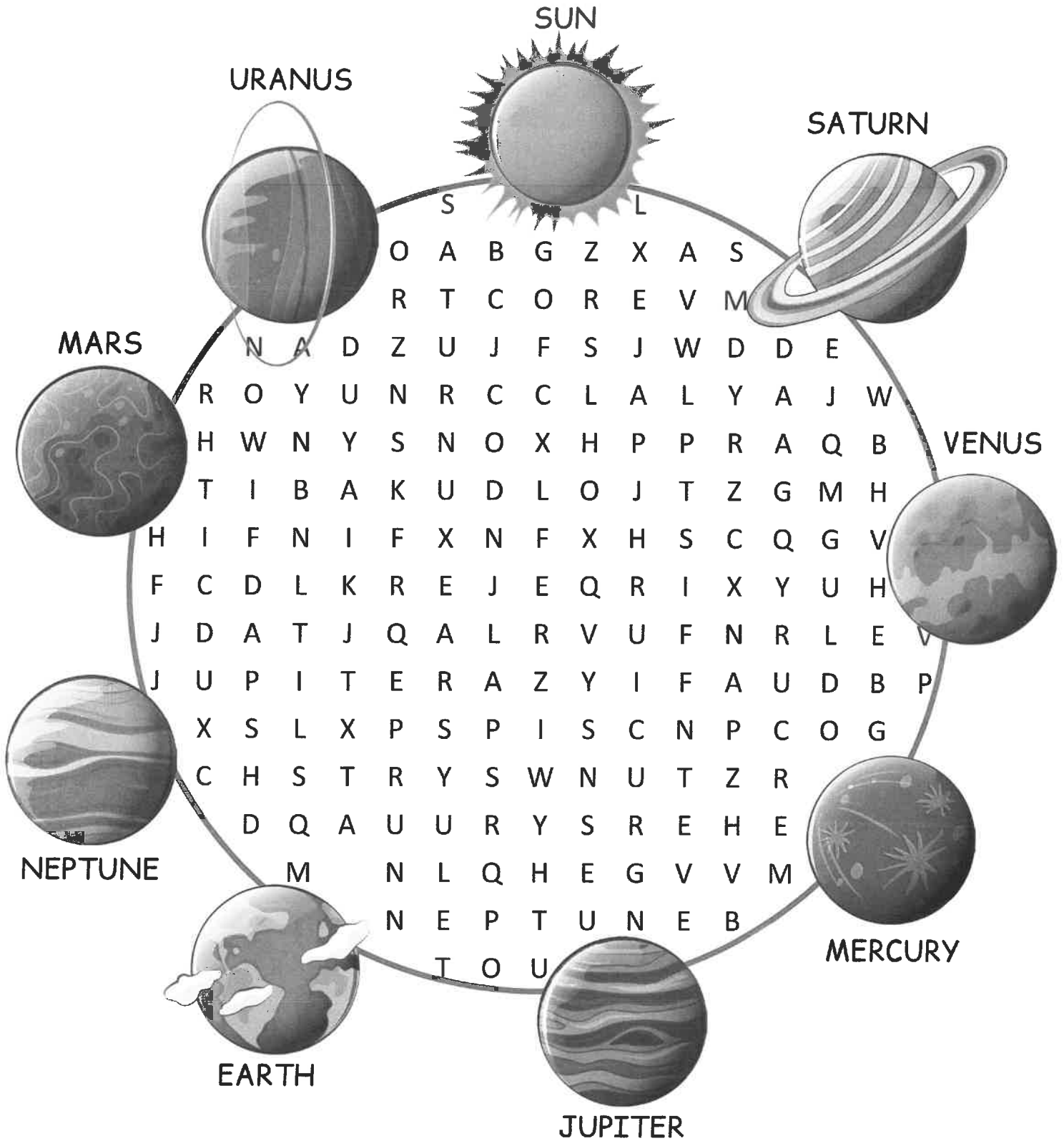
Nouns

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

- 1. _____
- 2. _____
- 3. _____

Our Solar System

DIRECTIONS: Find and circle the solar system objects in the word search grid. Look for them in all directions including backwards and diagonally.

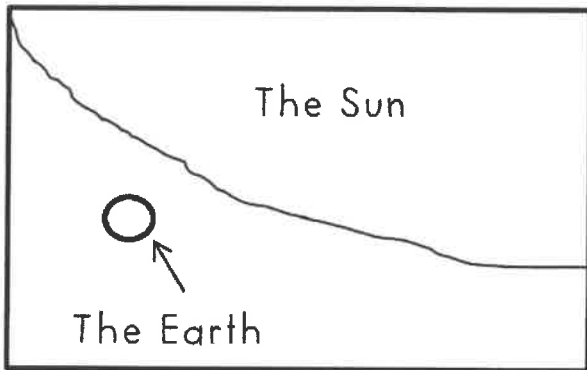
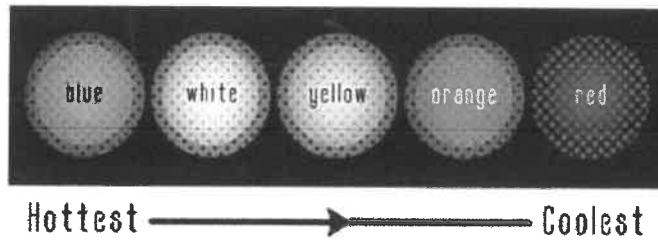


Stars

A star is an enormous ball of glowing gas that gives off heat and light. Stars look tiny because they are so far away from Earth. Stars go through a life cycle and change over time.

Stars are formed from gravity and dust in outer space. Inside the star are burning gases that push outward. Gravity pushes inward making the star stable. Blue giants are the largest stars, giving off a bright light. Red Dwarf stars are the smallest.

STARS

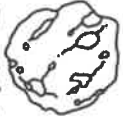


The Sun is a medium-sized star and the only star in our solar system. It looks larger to us because it is much closer to Earth than other stars. The Sun is the largest object in our solar system. It is so big that over 1 million Earths could fit inside it! The sun is over 4 billion years old.

Read each statement. For each statement, check the correct box. If it true for both, check both boxes.

Statements	Sun	Other Stars
Made up of burning gases		
In our solar system		
Makes its own light		
Can be seen at night from Earth		
Go through a life cycle		

Other Objects in the Solar System



What else orbits the sun? Asteroids are left over pieces from the formation of the solar system but are too small to be classified as planets. Asteroids are made up of metal and rock. They are similar to comets but do not have a fuzzy outline and tail.

Asteroids revolve around the sun between the orbits of Mars and Jupiter. This is called the **asteroid belt**. Some asteroids can be found outside of the asteroid belt. Currently, at least 5,000 asteroids cross the Earth's orbit.

Meteors appear when a chunk of metallic or stony matter enters the atmosphere from outer space. Often called shooting stars, they are particles that go very fast but are too small to harm us. As these particles crash into the atmosphere at a very fast speed, they burn, creating a long, bright tail.

If a meteor is big enough and does not completely burn, it can hit the ground. These are called **meteorites**. They are usually found in deserts or arctic areas.

Comets are like dirty snowballs that are the size of mountains. They are made of dust and ice but melt when they enter our solar system. This causes them to shine brightly and have long tails.

The tail's direction is determined by the location of the sun. The gas and dust the melt are blown away by solar winds, so the tail is always facing away from the sun.

	Asteroids	Meteors	Comets
Can also be called shooting stars			
Leftover pieces of the solar system			
Melt when they enter the solar system			
Has a bright tail			
Burn when they enter the atmosphere			