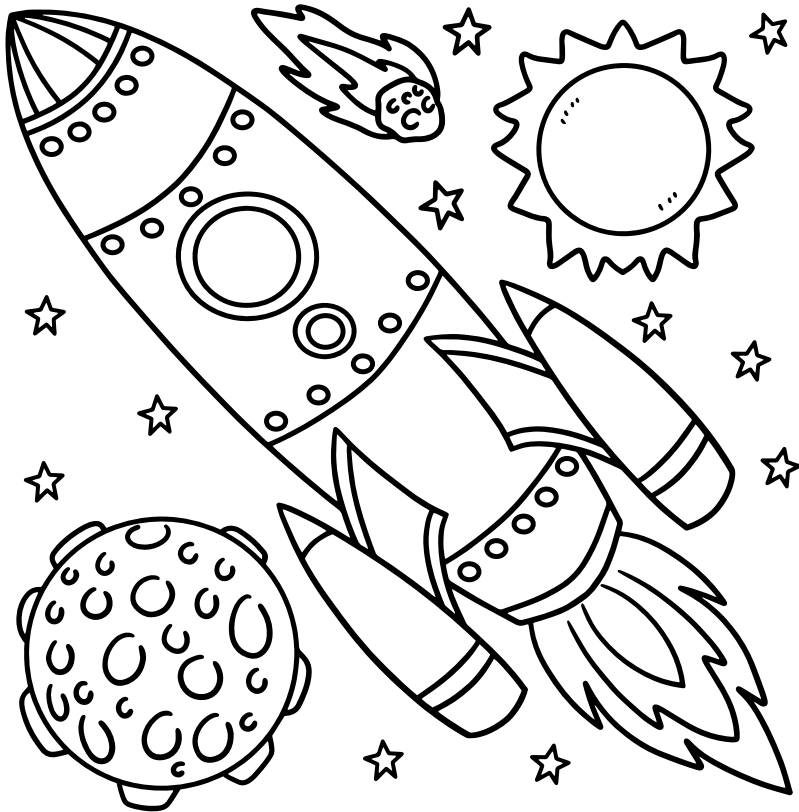




SPACE

Activity Book



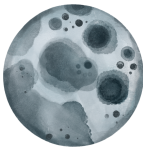


Name:



The Solar System

Our solar system is made up planets, stars, dwarf planets, moons, asteroids, comets and meteoroids. The Earth, sun and our moon are all part of the solar system. Read the following information, and then answer the questions on Page 3.

Object	Picture	Description
Earth		Earth is the planet that we live on, and the third planet from the sun. It is 150 million kms away from the Sun. It is the fifth largest planet in the solar system, and the only planet that contains liquid water.
Sun		The sun is the largest star in our solar system and is a sphere of gasses that give off incredible heat and light. The sun's gravity makes the planets in our solar system orbit around it, and the light and heat from it allow us to survive.
Moon		The moon is a natural satellite (object that orbits around something). It controls the tides, and reflects the light from the sun. It is the brightest object in the night sky due to its proximity to Earth, and is covered with pits called craters. Our moon orbits around Earth, as Earth orbits around the Sun.

What are Physical Characteristics

Physical characteristics are features that we can observe, allowing us to differentiate between objects. The Earth, the Sun, and the Moon share some characteristics, but also have many unique features that set them apart.

Some examples of physical characteristics include size, mass, density, temperature, gravity and more. When identifying and comparing these characteristics, we can understand similarities and differences between these three important objects in our solar system. The table on Page 2 shows these different characteristics.



Characteristics of the Earth, sun and moon

Object	Earth	Sun	Moon
Diameter	12.755 kms	1.4 million kms	3474.8 kms
Atmosphere	Nitrogen, oxygen, argon and a small amount of other gasses	Hydrogen, helium, and other elements	Sodium and potassium
Average temp	13.8 degrees Celsius	Approx. 5600 degrees Celsius	-183 degrees Celsius at night, 106 degrees Celsius during the day
Composition	Rocks and metals (iron and nickel)	Hot gasses (hydrogen and helium) and plasma	Igneous rock
Landforms	Volcanoes, mountains, oceans, forests, deserts, ice caps and glaciers.	Hot, glowing ball of gas with no solid surface.	Mountains, craters and flat areas

Earth, Sun & Moon

1. Which two objects are made from rock?

- a. Earth and Sun
- b. Sun and Moon
- c. Moon and Earth

2. The Earth, Sun and Moon all have an atmosphere

True/False

3. Which lists the objects in size order from largest to smallest?

- a. Moon, Sun, Earth
- b. Earth, Sun, Moon
- c. Sun, Moon, Earth
- d. Sun, Earth, Moon

4. The Sun has a solid surface

True/False

5. What physical characteristics do the Earth and moon have in common?

6. Which two objects are uninhabitable because of their temperature?

- a. Earth and Sun
- b. Sun and Moon
- c. Moon and Earth

7. Which of the following is a physical feature of the Earth, but not the moon?

- a. Made of rock
- b. Has liquid water
- c. Craters
- d. Solid

8. How is the sun different from the Earth?

9. The Earth is smaller than the Moon

True/False

10. Circle the statement that is true for the Earth, Sun and Moon?

- a. The surface is solid
- b. The composition is gas, liquid and solid
- c. The shape is spherical
- d. The atmosphere contains gasses that allow humans to breathe.

11. The Moon is 12,755kms in diameter

True/False

12. The Sun's temperature is approximately 5,600 degrees Celsius

True/False

13. List the seven landforms found on Earth

- _____
- _____
- _____
- _____
- _____
- _____
- _____

The Solar System

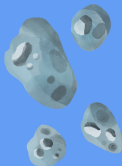
Find-A-Word



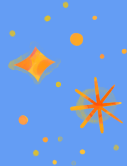
Use the list below to find the words.

S	U	N	W	C	R	A	T	E	R	S	N
O	Z	C	E	M	I	L	K	Y	W	A	Y
L	X	O	B	I	P	L	A	N	E	T	B
A	U	M	E	T	E	O	R	O	I	D	S
R	M	E	F	A	Y	D	D	S	M	V	T
S	A	T	E	L	L	I	T	E	O	R	A
Y	B	S	R	Y	K	L	O	W	O	G	R
S	A	S	T	E	R	O	I	D	N	W	Y
T	B	A	T	M	O	S	P	H	E	R	E
E	S	T	G	R	A	V	I	T	Y	N	Z
M	G	A	L	A	X	Y	A	E	D	I	O
I	G	N	E	O	U	S	R	O	C	K	L

- solar system
- satellite
- star
- gravity
- igneous rock



- comets
- meteoroids
- sun
- atmosphere
- galaxy

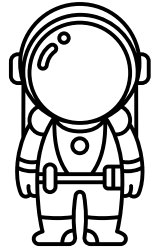


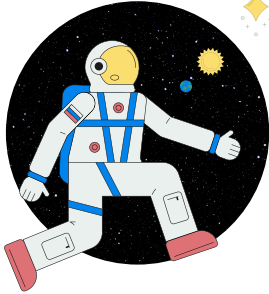
- planet
- moon
- asteroid
- craters
- Milky Way

Descriptive Writing

An Astronaut For a Day

Imagine you could become an astronaut for a day. What would you do? What would your day be like? Draw yourself in outer space and describe a day in your life as an astronaut.

A large empty rectangular box with a thin purple border, intended for drawing the astronaut in outer space.



EXPLORING SPACE BINGO CHALLENGE

Complete the boxes with information about space exploration.

The first person to fill five in the same row wins!

A person who goes into space	The closest planet to the sun	The biggest star in the Solar System	What astronauts wear to go out of the shuttle	The space shuttle takes off like a...
The space shuttle lands like an...	The last planet of the Solar System	What astronauts use to move things outside the shuttle	The smallest planet in the Solar System	The third planet (our home)
What astronauts do when there's no gravity	An activity that astronauts do in space	The hottest planet in the Solar System	What astronauts use to tie sleeping bags to walls	What astronauts do to keep clean
The planet that has bright rings	What astronauts do to stay strong	What astronauts eat	The coldest planet	An activity that astronauts do in space
What astronauts use to go into space	What astronauts use to fly the space shuttle	What astronauts use to sleep	An object that astronauts use to see things far away	The number of moons that Earth has



SPACE WORD SCRAMBLE



Unscramble the following space words

ATORSNTUA _____

PTENLAS _____

SCPEA STLTHUE _____

STRAS _____

MNOOS _____

SNU _____

SEPCA STUI _____

CMOTSE _____

RKCTEO _____

FLATO _____

GTIRAYV _____

OBITR _____



SPACE SEARCH

x	y	x	a	l	a	g	i	c	n	l	m	z
m	r	s	l	m	s	m	b	z	o	u	x	o
z	o	t	t	u	t	o	i	j	i	f	p	b
c	y	t	e	a	e	o	v	t	t	l	t	e
b	a	r	a	m	r	n	o	z	a	l	u	s
m	w	o	f	b	o	s	n	n	l	y	a	r
b	y	e	i	r	i	c	e	u	l	t	n	e
x	k	t	w	l	d	t	b	s	e	d	o	v
k	l	e	i	d	s	s	u	l	t	b	r	i
z	i	m	p	v	j	p	l	q	s	y	t	n
s	m	o	o	t	a	i	a	o	n	f	s	u
n	i	i	y	r	t	r	r	k	o	a	a	y
p	z	i	w	e	l	y	g	l	c	c	x	k

asteroids

galaxy

moons

satellite

astronaut

gravity

nebula

stars

comet

meteor

orbit

sun

constellation

milkyway

planets

universe



The Atmosphere



Read the sentences and fill in the gaps with words from the box.

hottest gases weather coldest thermosphere carbon dioxide
highest five nitrogen oxygen mesosphere lowest ultraviolet

- 1 The atmosphere is the layer of _____ that surrounds the Earth.
- 2 The atmosphere is composed of _____, oxygen and other gases.
- 3 The atmosphere contains the _____ we need to breathe.
- 4 Plants use _____ from the air for photosynthesis.
- 5 Earth's atmosphere has _____ main layers.
- 6 The troposphere is the _____ layer from the Earth.
- 7 The troposphere is where the _____ occurs.
- 8 The Ozone layer in the stratosphere, filters _____ radiation.
- 9 The top of the mesosphere is the _____ place in the Earth system.
- 10 Meteors and space junk burn up in the _____
- 11 Ultraviolet radiation makes the thermosphere the _____ layer.
- 12 Aurora and satellites are found in the _____
- 13 The exosphere is the _____ layer of the atmosphere.

SOLAR SYSTEM

The solar system consists of the Sun and eight planets. At the center of the solar system is the Sun, which is a star that provides energy and light to all the planets. The eight planets in order from the Sun are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.

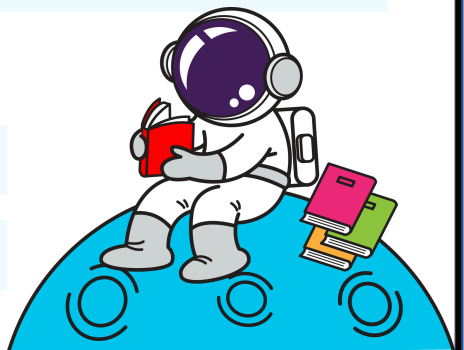
Mercury, Venus, Earth, and Mars are rocky and smaller in size compared to the other four planets which are gas giants. Jupiter is the largest planet in the solar system and has the most moons. Saturn is known for its beautiful rings. Uranus and Neptune are both considered ice giants and have a blueish color due to the methane gas in their atmospheres.

Earth is the only planet in the solar system known to have life. Water, a protective atmosphere and a stable climate make it a hospitable home for plants and animals.

What is at the center of the solar system?

What makes Earth able to sustain life?

Make up your own acronym to remember the order of the planets:


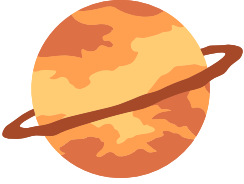



PLANETS OF OUR SOLAR SYSTEM

Sort & Review

Activity Instructions:

1. Cut out the boxes on page 1
2. Stick them underneath the correct heading in the table on page 2
3. Use page 3 to check your answers

	<p>Examples: Mercury, Venus, Earth and Mars.</p>	<p>Located furthest from the sun.</p>
<p>Examples: Uranus and Neptune.</p>	<p>Examples: Jupiter and Saturn.</p>	
<p>These planets are made of gas, primarily hydrogen and/or helium.</p>	<p>Located closest to the sun.</p>	<p>These planets are made from compounds which form ices when cold.</p>
<p>These planets are mostly made of rock.</p>		<p>The largest planets in the solar system.</p>

PLANETS OF OUR SOLAR SYSTEM

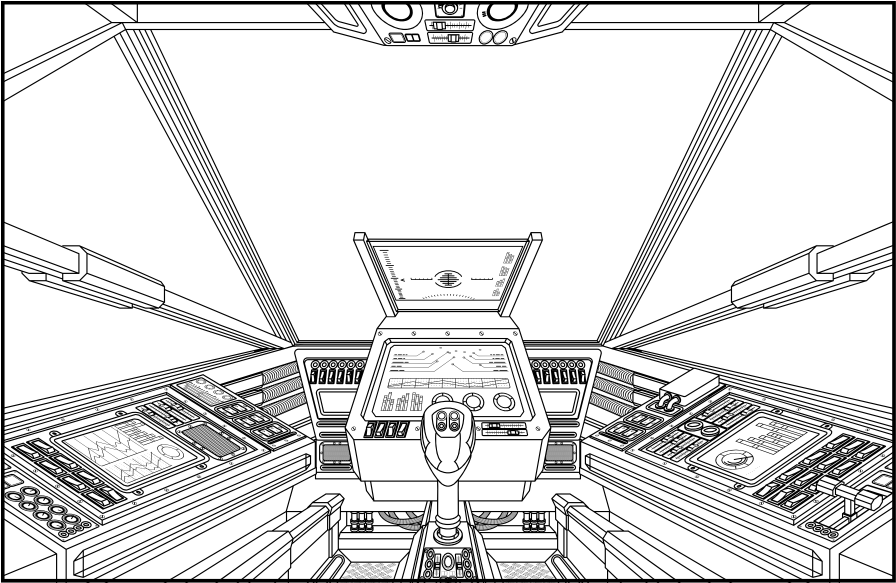
Sort & Review

Activity Instructions:

1. Cut out the boxes on page 1
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3. Use page 3 to check your answers

Page 2

Terrestrial	Gas giants	Ice giants



Write down your space facts research:
