



Our Solar System

Discuss

- What is the solar system?
- What are some of the things that you can find in our solar system?
- Why do these things stay together instead of flying off into outer space?
- Would you leave Earth to explore our solar system? Why or why not?

Vocabulary

Solar System

Earth

Orbit

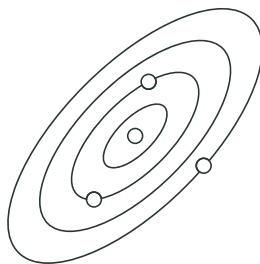
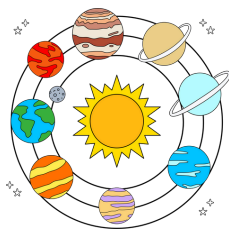
Comet

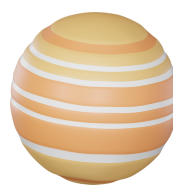
Gas Giants

Asteroid Belt

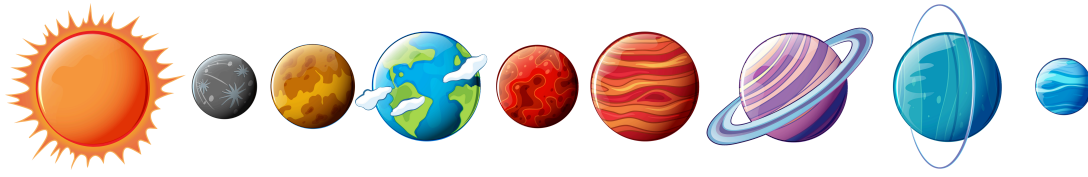
Moon

Star





Our Solar System



Our solar system includes the sun and all the objects that orbit the sun.

The sun is the largest of these objects; its gravity holds the solar system together, and its light makes life on Earth possible. Without the sun, the solar system cannot exist. The next largest objects are the eight planets that orbit the sun. They also have gravity; some, like Earth, may have moons. Nearest to the sun are the rocky planets Mercury, Venus, Earth, and Mars. These are sometimes called the inner planets.

Beyond Mars is the asteroid belt. Asteroids are leftover rocks from the making of the inner-planets 4.5 billion years ago. Some are small, and some are large. There are millions of rocky objects in the asteroid belt.

After the asteroid belt, you will find the four gas giants - Jupiter, Saturn, Uranus, and Neptune. These are sometimes called the outer planets. These planets are much larger than the inner planets, but they are very lightweight for their size.

When the sun was born, its gravity pulled all the heavy rocks close. The lighter gases stayed further away. The gases hydrogen and helium are what mostly make up the large outer planets of the solar system.

If you travel beyond the outer planets, you will arrive in the Kuiper Belt. The dwarf planets and asteroids in the Kuiper Belt are called Kuiper Belt objects. The dwarf planet Pluto is a Kuiper Belt object.

Even further out are the comets of the Oort Cloud. These are so far away that they are invisible in even the largest telescopes. Every so often, something will disturb a comet, causing it to head towards the sun. It then becomes visible in the night sky.

Together, these objects make up our solar system.

Comprehension

A mnemonic, also known as a memory aid, is a tool that helps you remember an idea or phrase with a pattern of letters, numbers, or relatable associations. Mnemonic devices include special rhymes and poems, acronyms, images, songs, outlines, and other tools. The following mnemonic can help you memorise the order of the planets.

My Very Excellent Mother Just Served Us Noodle

Word Bank

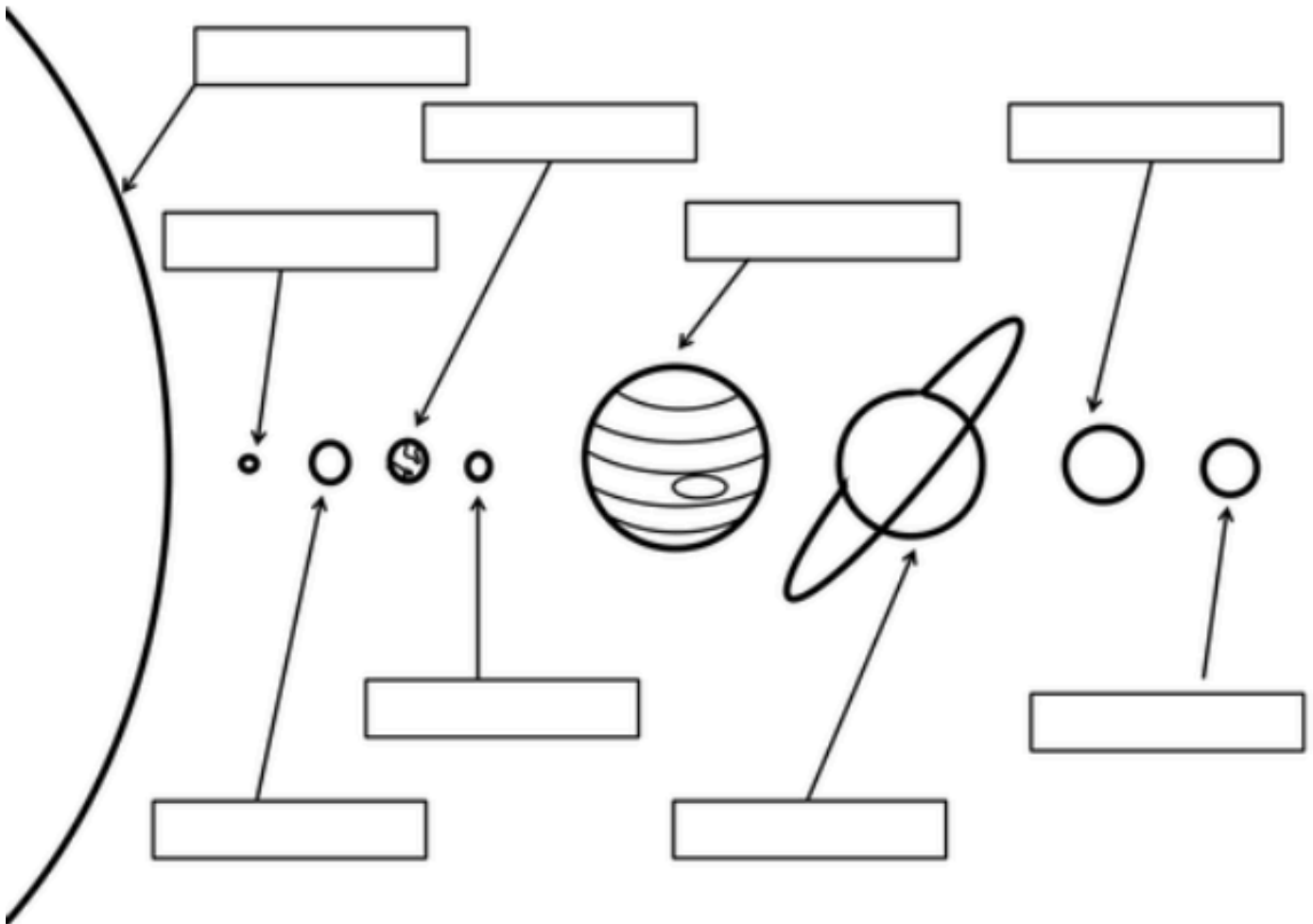
Saturn
Mercury

Venus
Earth

Neptune
Jupiter

The Sun
Uranus

Mars



Questions

Directions: Answer the questions in full sentences

1) What objects make up our solar system?

2) What is the largest object in our solar system?

3) What holds our solar system together?

4) What are the planets nearest to the sun called?

5) What are the planets furthest from the sun called?

6) What can you find between Mars and Jupiter?

7) Which two planets are on each side of Saturn?

8) Which planet comes before Neptune?

9) Which planet comes after Neptune?

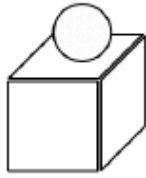
10) Why are the rocky planets closer to the sun?

11) Why are the gassy planets farther away from the sun than the rocky planets?

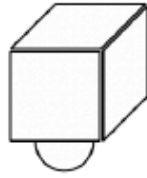
12) Which part of our solar system is the farthest away?

Practice I

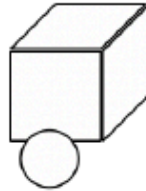
Prepositions of Place



On



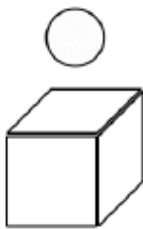
Under



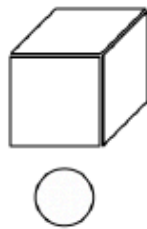
In Front Of



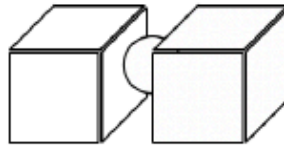
Behind



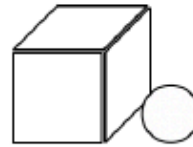
Above



Below



Between



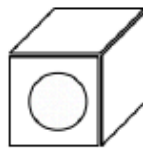
Next to / Beside



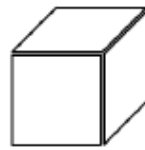
Around



Among



In



Opposite / Across

Directions: Answer the questions, "Where is the ball?" 4 times. For each sentence, use a different preposition of place. Use the images above to help you.

Example: The ball is in the box.

1. The ball _____

2. _____

3. _____

4. _____

Prepositions of Place: Definitions

A preposition is a word that indicates the relationship between a noun and the other words of a sentence. Prepositions of place describe the position of a person or thing in relation to another person or thing.

IN: something present in a place or area.

Your shirt is **in** the closet. (Not an exact location.)

He lives **in** Australia.

AT: an exact place.

He is **at** the door. (An exact location.)

I am standing **at** 13/4 George Street.

ON: a position above but touching the object.

The phone is **on** the table. (The phone is touching the table.)

He is **on** the third floor.

ABOVE: a higher position than the preposition **on** indicates.

The sky is **above** my head.

Hold your hands **above** your head.

OVER: a position between **on** and **above** which is *not* touching.

A bird flew **over** my head (but it didn't touch my head).

My flat is **over** that shop.

UNDER: the opposite of **on** and means 'below the surface of' something.

The cat is **under** the table.

The carpet **under** my feet is soft.

BELOW: indicates something which is slightly lower than **under**.

I have a scar just **below** my right eye.

Do you see the line **below** the paper?"

Prepositions of Place: Definitions

BETWEEN: in the space that separates two places, people, or objects.

The book is **between** my lunchbox and pencil case.

The USA is **between** Mexico and Canada.

OPPOSITE: the other side of something straight

The man is on the **opposite** side of the river.

The potatoes are on the **opposite** side of the table.

BESIDE: at the side of or next to something

The car **beside** the cycle is mine.

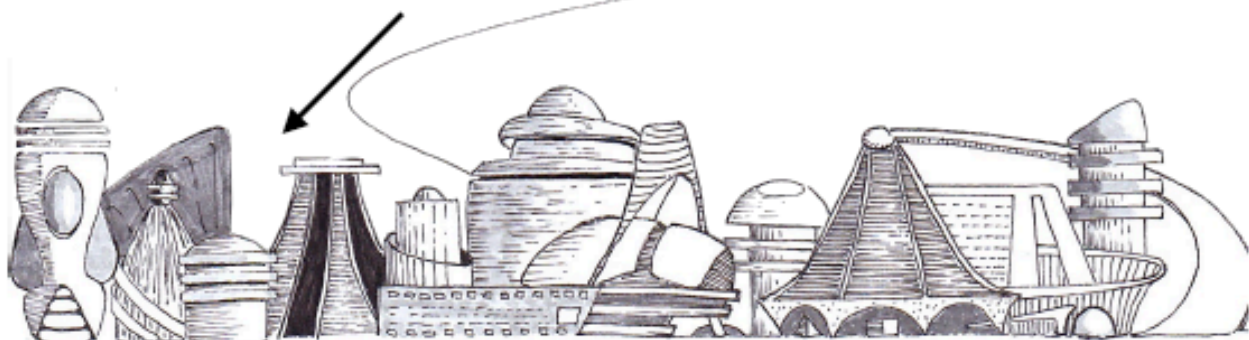
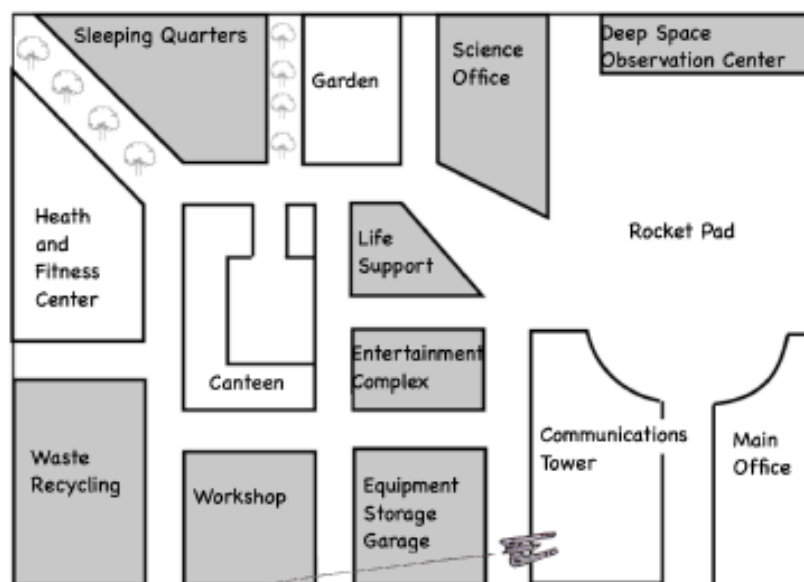
He is standing **beside** the shop.

IN FRONT OF: a position facing someone or something

He parked his car **in front of** my house.

I have a pool **in front of** patio."

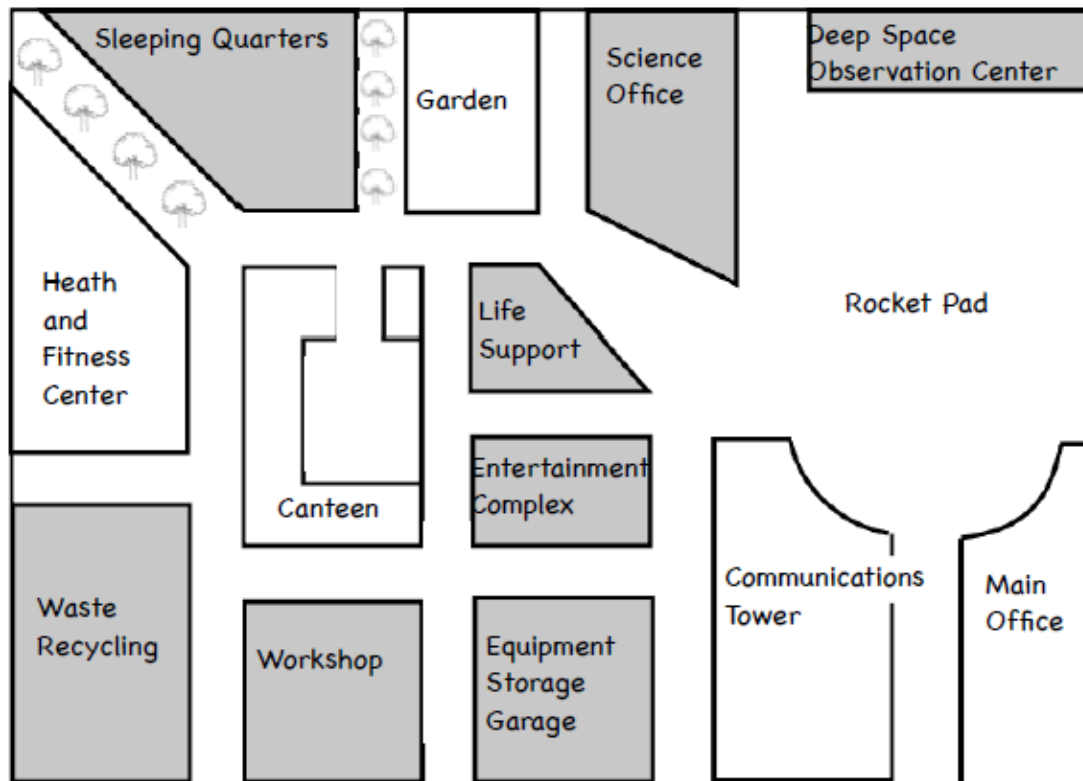
Directions: Use the prepositions above to talk about where things are on the moon base blow.



Practice I

Lunar Station: Hope

Directions: Use the prepositions to fill the gaps and answer the questions below.



1. The workshop is _____ the canteen.
2. The garden is _____ the sleeping quarters and the science office.
3. The communication tower is _____ the main office.
4. The health and fitness centre is _____ the waste recycling.
5. The rocket pad is _____ the main office, the communications tower, science office, and deep space observation centre.
6. Where is the life support?

7. Where is the equipment storage garage?

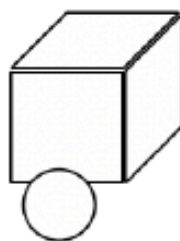
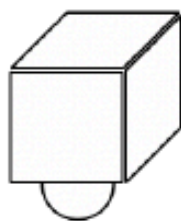
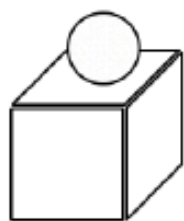
8. Where is the entertainment complex?

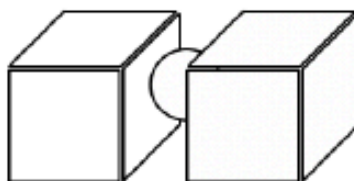
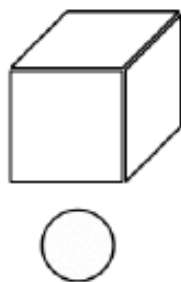
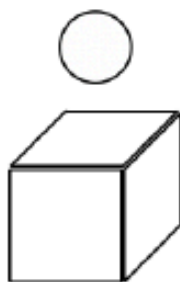
9. Where are the sleeping quarters?

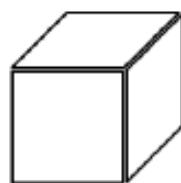
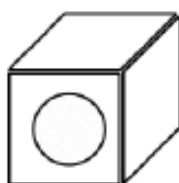
Practice II

Prepositions of Place

Directions: Use the prepositions to fill the chart below.







Vocabulary

Directions: Draw your own lunar (or Mars) base like the one pictured in Practice I. Write about where things are using the prepositions of place.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.