

The Primary Stage of Grades (4-5) School Year 2022 - 2023

Name: _____

Subject: Science

Study sheet #1: The Solar System

Date: / /

Class: Grade Four National (A/B)

Objective/s: Know what our solar system consists of.

Describe the Earth's movement in the solar system.

The Solar System

Our solar system consists of the sun, eight planets and their natural satellites (such as our moon); asteroids and comets. The sun, the center of our solar system, holds eight planets in their orbits because of its huge gravitational force.

- The sun, planets and their moons are all spherical in shape.
- Planets are different in size and have different distances from the sun.
- All planets orbit the Sun in an elliptical path.
- Each planet takes different time to orbit the Sun and spin around itself.

The sun:

The sun is at the center of the solar system.

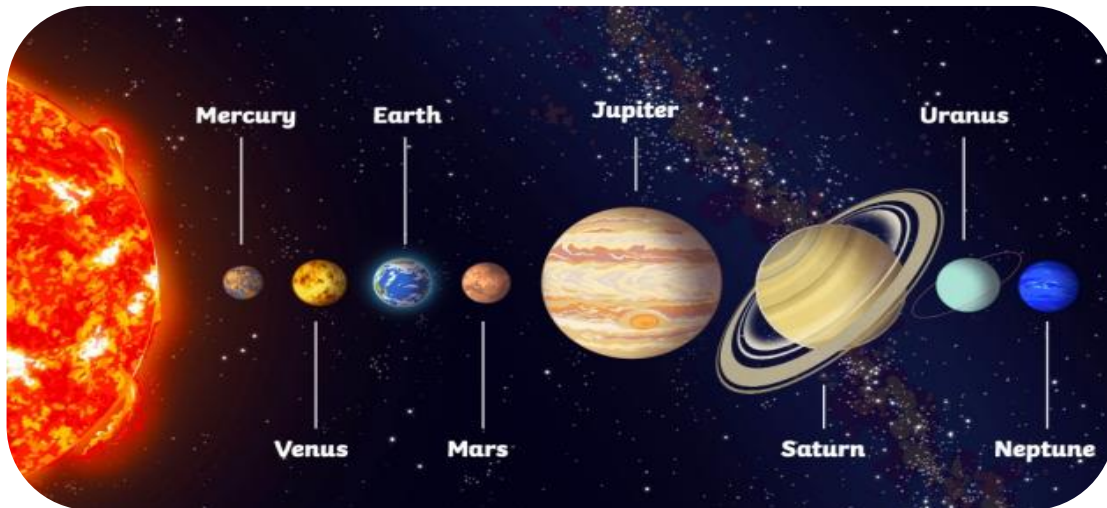
The sun is a star. It is a huge ball of very hot gases, it provides us with light and heat



Planets of the solar system:

There are eight planets in the solar system:

Mercury – Venus – Earth – Mars – Jupiter – Saturn – Uranus – Neptune.



Inner planets (rocky planets):

- Mercury: is the smallest planet in the solar system and the closest to the sun.
- Venus: is the hottest planet in the solar system.
- Earth: is the only planet with liquid water on the surface.
- Mars: is very dusty and cold. It is called the red planet.

Outer planets (made up of ice and gas):

- Jupiter: is the largest planet in the solar system.
- Saturn: is known for its ring that is made of dust and ice.
- Uranus: the seventh planet from the sun, it is called the ice giant.
- Neptune: It is the last of the planets in our solar system. Neptune is dark, cold, and very windy. It is also called an ice giant.

Earth:

Earth, our home planet, is the only planet in our solar system known to have life. All the things we need to survive exist under a thin layer of atmosphere that separates us from the cold, airless space.

- Earth has one moon. Its name is Luna.

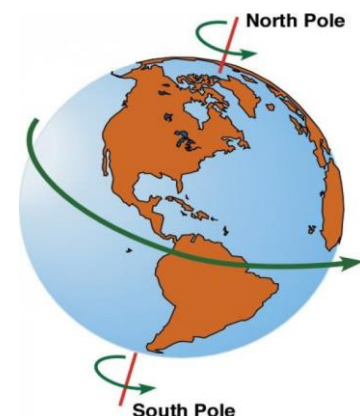
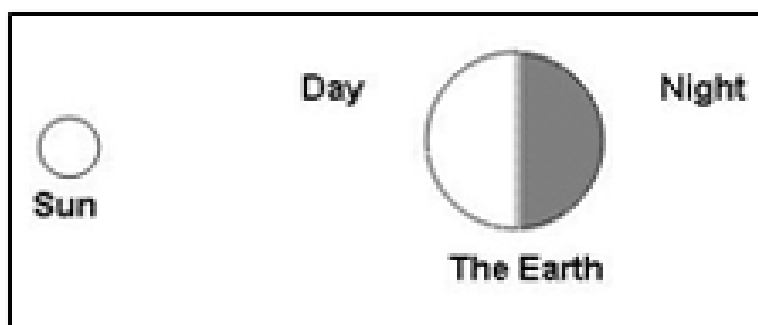
Earth's movements:

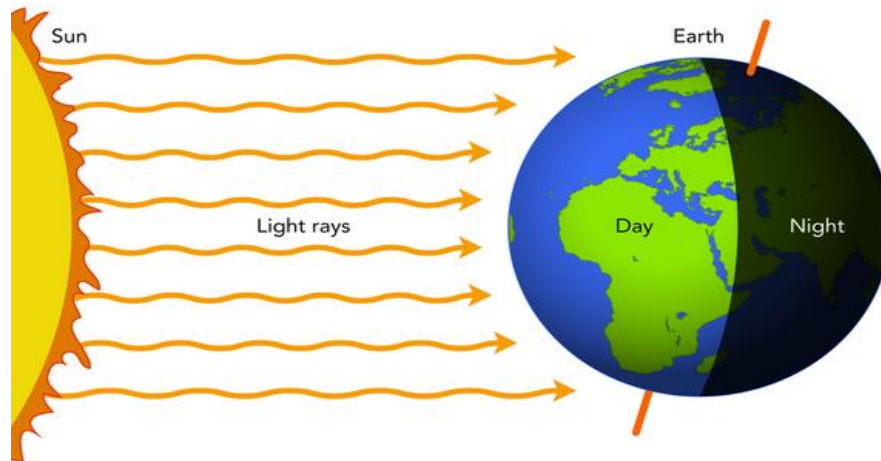
Earth has two movements:

1. Rotation around its axis: takes 1 day/ 24 hours.
2. Orbiting the sun: takes 1 year/ 365 days

1. Earth's rotation around its axis:

- Earth rotates about an imaginary line that passes through the North and South Poles of the planet. This line is called the axis of rotation. Earth rotates on its axis every 24 hours. This rotation causes day and night.
- The side of Earth that faces the Sun has daytime and the side of Earth that is turned away from the Sun has night-time. When it is daytime in Jordan, it is night-time on the opposite side of the Earth in United States.





2. Earth's orbit around the sun:

- Earth orbits or revolves around the Sun every 365 $\frac{1}{4}$ days, or one year.

Seasons:

- The rotation of Earth around the Sun causes the sequence of the four seasons (summer – spring – autumn – winter).
- The four seasons happen because of the tilt of the Earth's axis.
- When it is summer at the Northern Hemisphere the North Pole is tilted towards the Sun, so Earth receives longer hours of sunlight, resulting of becoming warmer and having longer days.

