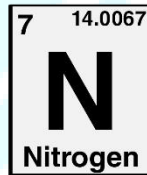
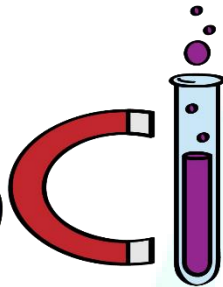
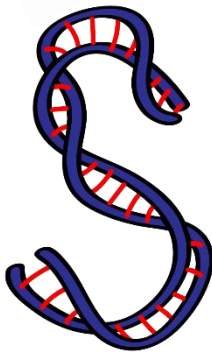




ASPIRE
INTERNATIONAL SCHOOL



Science Department

2023/2024

Year 4

Term 2, Week 10

ASPIRE

INTERNATIONAL SCHOOL

Name:

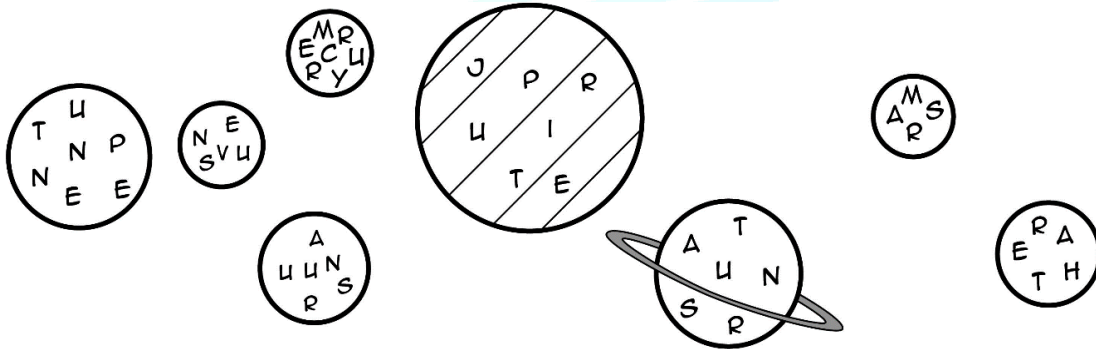
Class:

Worksheet 5.4 Light in the solar system

1) Match:

1- Asteroid b	a- Movement of a body in space around a larger body.
2- Orbit a	b- A rocky mass that orbits the sun.

2) Here is a picture of the eight planets in the solar system.



Unscramble the names of the planets. Write them in order from the planet closest to the Sun to the planet furthest from the Sun.

-----**Mercury - Venus - Earth - Mars - Jupiter - Saturn - Uranus - Neptune**-----

3) Describe where most of the asteroids are in the solar system.

-----**Most of the asteroids are between Mars and Jupiter**-----

4) Describe a comet.

-----**Is a lump of ice and dirt that moves in a large orbit around the sun**-----

Case study: Jupiter

Read the case study about Jupiter.

Jupiter is the largest planet in the solar system.
Jupiter orbits the Sun once every 12 Earth years.

Jupiter has four large moons, and at least 24 small moons which orbit it.
The largest moon is called Ganymede.
This is the largest moon in the whole solar system.

Jupiter consists mainly of two gases: hydrogen and helium, with smaller amounts of other gases in the surface layers.

Space projects have sent robotic probes to Jupiter.
A robotic probe is an unmanned spacecraft that lands on a body in space and collects data and takes photographs.
Probes have sent photographs of Jupiter back to scientists on Earth.
The photographs show colourful bands of clouds surrounding Jupiter.
No water has been found on Jupiter.

The Juno probe was launched from the USA in 2011.
It arrived in orbit around Jupiter in 2016.
Scientists hope it will stay in orbit around Jupiter until 2021.
It is powered by solar panels.
Already it has sent back amazing photographs of Jupiter.

5) Answer these questions.

1- What is a planet?

-----**A body in space that orbits the sun**-----

2- Which is the largest planet in the solar system?

-----**Jupiter**-----

3- What is a moon?

-----**A body in space that orbits planets and asteroids**-----

4- How many moons does Jupiter have?

-----**28 or more (4 large moons and 24 small moons)**-----

5- What material does Jupiter consist of?

-----**Gas**-----

6- What is Juno?

-----**A robotic probe**-----

6) Complete the table below to compare the planets Earth and Jupiter.

	Earth	Jupiter
Position in solar system	3rd from Sun	5th from the sun
Time to complete one orbit around the Sun	1 year	12 Earth years
Number of moons	1	28 or more
Composition	Rocks	Gases
Is there any water on the surface?	Yes	No

a- Describe what the Juno probe is doing.

----- **We put robotic probes into orbit around Jupiter. These take photographs which are sent back to Earth.**-----

b- Which star does Jupiter revolve around?

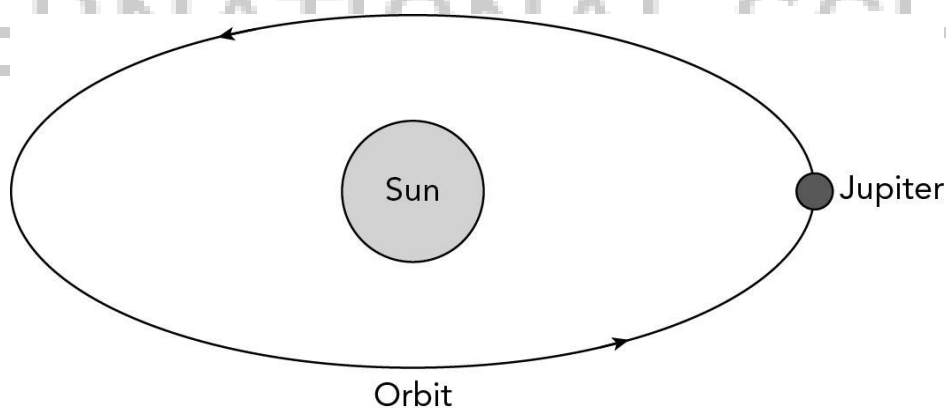
----- **The sun**-----

c- How long does Jupiter take to orbit once round this star?

----- **12 Earth years**-----

d- Draw a diagram in the space below to represent the orbit of Jupiter.

Show the movement with arrows. Label the bodies and the orbit.



e- Compare the surfaces of Earth and Jupiter.

----**Earth's surface consists of rocks and Jupiter's surface consists of gases**----

f- Do you think it would be possible for a spacecraft to land on Jupiter?

Explain why or why not.

-----**No, because the surface consists of gas**-----



ASPIRE

INTERNATIONAL SCHOOL

