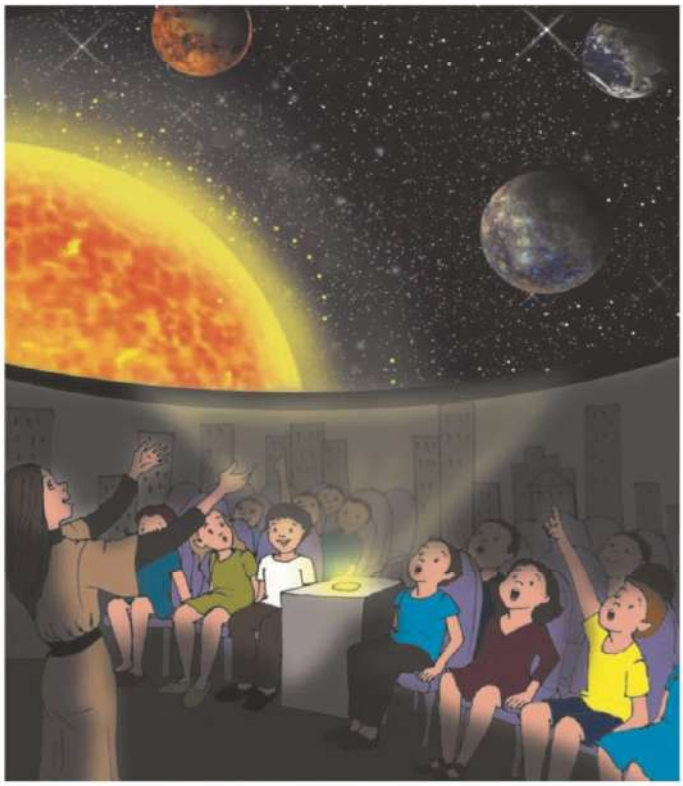
ALL QUESTIONS WORTH 4 POINTS

At the Planetarium



In the round hall of the planetarium, the kids of the 3rd grade are anxiously waiting for the projection to begin. There are 14 boys, and the girls are two more than the boys.

The celestial bodies will appear on the dome of the hall. First came the star of the day – the Sun. The Sun is a star that is over 4 billion years old. On Its surface, the temperature reaches over 6000 degrees Celsius (°C), and inside, the temperature is much higher. Inside the Sun, there are nuclear reactions that produce a large amount of energy. This energy gives heat to all the planets in the Solar System. Without it, there would be no life on Earth. The Sun is estimated to produce energy for another 3 billion years.

The children looked at how the image of the Sun headed towards the line of the horizon and disappeared. Darkness slowly descended into the room. In place of the Sun, thousands of stars appeared on the night sky. Then, the children were shown the planets of the Solar System one at a time, in order of their closeness to the Sun: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

Planet Mercury

Mercury is the closest planet to the Sun. A day on Mercury lasts the equivalent to 58 days on Earth. Mercury rotates around the Sun in approximately 88 days. This planet is heavily bombarded by meteorites – pieces of celestial bodies. This is why we see on its surface a lot of deep craters.

Here, the temperature varies enormously from day to night. During the day, the temperature reaches 420°C, and at night, it drops to –173°C.

Planet Venus

Venus is the brightest planet seen from the Earth. It is also called "the morning star".

Venus is the hottest place in the Solar System, after the Sun, with a surface temperature of about 500°C.

This planet is different from others because here the Sun rises from the west and sets in the east. Venus has about the same size as Earth. A day on Venus is equivalent to almost 117 days on Earth.

1. What is the Sun?

A) a planet **B)** a satellite **C)** a star
D) a continent **E)** an ocean

2. The Sun's age is....

A) 4 thousand years **B)** over 4 billion years
C) not more than 4 billion years **D)** 4 million years **E)** 4 millennia

3. How long will the Sun keep on producing energy?

A) 8 billion years **B)** 4.6 billion years **C)** 3 billion years
D) 1.6 billion years **E)** 10 billion years

4. The Sun's temperature is….

A) 6000°C, both at the surface, as well as inside
B) 6000°C inside
C) 600°C inside
D) 6000°C at the surface
E) 600°C at the surface

5. What is a meteorite?

A) a piece from a celestial body
B) a small planet
C) a star
D) a rock
E) a mountain on Venus

6. Because of the meteorites bombarding it, Mercury has a lot of….

A) craters
B) crickets
C) characters
D) crypts
E) crystals

7. Planet Venus is unique in the Solar System because:

A) it is seen from the Earth
B) there the Sun rises from the east
C) it is uninhabited
D) there the Sun sets in the east
E) it has the shortest day

8. On Planet Mercury, a day lasts around….

A) 696 hours
B) 1450 hours
C) 1392 hours
D) 58 hours
E) 1892 hours

9. Planet Venus is also called

A) The Super Star
B) The Shiny
C) The Morning Star
D) The Light
E) The Second Sun

10. What is the difference in surface temperature between the Sun and Venus?

A) 5500°C
B) 2000°C
C) 1000°C
D) 12°C
E) 100°C

11. What is Venus's position from the Sun?

A) first **B)** second **C)** third
D) fourth **E)** fifth

12. How many children from the 3rd grade have visited the Planetarium?

A) 14 **B)** 16 **C)** 20
D) 28 **E)** 30

Planet Earth

Planet Earth, also called Terra, is the fifth in size. The surface temperature varies between -50°C and 50°C. It is the only inhabited planet in the Solar System. The Earth takes 365 days and 6 hours to rotate around the Sun. The Earth has only one natural satellite, the Moon, and around 1500 artificial satellites used to collect and send important data for agriculture, meteorology, telecommunications.

Planet Mars

Mars is also called the Red Planet, because of the reddish color given by its rich iron content. Mars has the tallest volcano in our Solar System. A day on Mars lasts about 24 hours and 30 minutes, and a year has 684 days.

Like Earth, the poles of Mars have ice.

Planet Jupiter

Jupiter is the largest planet in our Solar System. It's a planet composed mostly of gas. On Its surface there is a formation called "The Great Red Spot", where powerful storms take place. On the surface, the temperature is about 150°C. Jupiter may be seen with the naked eye, looking as a very

Planet Saturn

The planet Saturn is known because of Its rings, consisting of chunks of rock and ice rotating around it.

This planet needs 29 Earth years to make a full rotation around the sun. A day on Saturn lasts 10 hours and 4

bright star. Jupiter has tens of natural satellites; four of these were discovered by Galileo Galilei in 1610. A day on Jupiter lasts 9 hours and 50 minutes, and a year has 4334 days.

minutes.

Saturn is the farthest planet in the Solar System that can be seen with the naked eye from Earth.

Planet Uranus

Uranus is the third largest planet in the Solar System. It was first observed by astronomer William Herschel on March 12 1781, who initially believed it was a comet.

It can be observed with a telescope or a binocular. Uranus has its own rings, but they are less clear. A day on Uranus lasts approximately 17 hours.

Planet Neptune

Neptune was initially discovered through mathematical calculation, but it was first observed in 1846.

Neptune has the greatest storms. Here, the wind can reach speeds of about 2000 km/hour, being the strongest wind in the Solar System. A year on planet Neptune lasts 165 Earth years, and a day lasts about 16 hours.

13. Planet Earth is unique in the Solar System because:

A) it rotates around the Sun
B) it is round
C) it is inhabited by humans
D) the temperature varies between day and night
E) it can be observed on the night sky

14. Which planet has the longest day?

A) Uranus **B)** Earth **C)** Neptune
D) Mercury **E)** Venus

15. The Moon is….

A) a star in the Solar System
B) a small planet
C) a meteorite on Mercury
D) an artificial satellite of Earth
E) a natural satellite of Earth

16. The poles of Mars have….

A) oxygen **B)** water **C)** salt
D) oil **E)** hydrogen

17. "The Great Red Spot" on Jupiter is an area with very....

A) hot summers **B)** powerful storms **C)** much water
D) much iron **E)** rich vegetation

18. The planet with the shortest day is:

A) Uranus **B)** Jupiter **C)** Earth
D) Neptune **E)** Mercury

19. How many hours does an Earth year have?

A) 24 hours **B)** 8760 hours **C)** 8784 hours
D) 8766 hours **E)** 4380 hours

20. Galileo Galilei discovered:

A) planet Jupiter **B)** 4 artificial satellites of Jupiter
C) "Great Red Spot" **D)** 4 natural satellites of Jupiter
E) all of Jupiter's natural satellites

21. Saturn's rings are made up of materials that are….

A) liquid and gas **B)** solid **C)** liquid
D) gas **E)** solid and gas

22. Saturn is the last planet in the Solar System which....

A) was discovered
B) can be observed with the naked eye from Earth
C) can be observed through a telescope
D) was studied
E) is lifeless

23. On Neptune, the wind can reach speed of over….

A) 1500 *km/h* **B)** 2500 *km/h* **C)** 3000 *km/h*
D) 5000 *km/h* **E)** 10000 *km/h*

24. A year on planet Neptune is about:

A) 25 Martian years **B)** 38 Martian years **C)** 50 Martian years
D) 88 Martian years **E)** 100 Martian years