2025 Science Challenger D1 Earth Science/Astronomy QUESTIONS

1. What is the radius of the earth in km?
    a. 6400 km
    b. 3200 km
    c. 12000 km
    d. 5000 km
2. What is the distance between the Earth and the Moon in miles?
    a. 275000 mi
    b. 125000 mi
    c. 239000 mi
    d. 750000 mi
3. What is the sun mostly made of?
    a. Nitrogen
    b. Oxygen
    c. Hydrogen
    d. Helium
4. What percentage of Earth's surface is water?
    a. 50%
    b. 47%
    c. 90%
    d. 71%
5. What percentage of the Solar System's mass is Earth?
    a. 0.0003%
    b. 0.01%
    c. 1.2%
    d. 5%
6. How many gas planets are in the solar system?
    a. 5
    b. 4
    c. 3
    d. 0
7. What is the closest planet to the Sun?
    a. Mercury
    b. Venus
    c. Earth
    d. Mars
8. What is the planet Jupiter mostly made out of?
    a. Ice
    b. Helium & Nitrogen
    c. Hydrogen & Helium
    d. Hydrogen
9. What is the approximate age of the Earth?
    a. 3.5 million years

b. 450 thousand years
c. 4.5 billion years
d. 10 billion years

10. Which planet has the most moons?
    a. Jupiter
    b. Saturn
    c. Neptune
    d. Earth
11. What is the hottest planet in our solar system?
    a. Earth
    b. Mercury
    c. Venus
    d. Mars
12. What do we call a rock that comes from space and lands on Earth?
    a. Meteorite
    b. Comet
    c. Asteroid
    d. Shooting Star
13. Which layer of the Earth is made of solid rock and forms the continents?
    a. Core
    b. Mantle
    c. Magma
    d. Crust
14. What tool is used to measure earthquakes?
    a. Thermometer
    b. Seismograph
    c. Barometer
    d. Ruler
15. Which planet has a giant red spot that is actually a storm?
    a. Saturn
    b. Uranus
    c. Jupiter
    d. Neptune
16. What causes day and night on Earth?
    a. The moon’s orbit
    b. Earth's rotation
    c. Earth's revolution
    d. The sun’s movement
17. What is lava before it erupts from a volcano?
    a. Rock
    b. Magma
    c. Gas
    d. Ash
18. What is the main source of energy for Earth?

a. Moon
b. Stars
c. Wind
d. Sun

19. What kind of scientist studies rocks?
    a. Biologist
    b. Meteorologist
    c. Astronomer
    d. Geologist
20. Which of these planets rotates on its side?
    a. Mars
    b. Mercury
    c. Earth
    d. Uranus
21. What does the Earth do once every 24 hours?
    a. Orbits the Sun
    b. Changes shape
    c. Spins (rotates)
    d. Orbits the Sun halfway
22. What kind of rock forms from lava?
    a. Metamorphic
    b. Sedimentary
    c. Fossil
    d. Igneous
23. Which layer of Earth is made of liquid metal?
    a. Crust
    b. Mantle
    c. Outer Core
    d. Inner Core
24. The group of asteroids between Mars and Jupiter is called
    a. The Kuiper Belt
    b. The Asteroid Belt
    c. The Oort Cloud
    d. Hawking's Asteroid Strip
25. Titan is a moon of
    a. Venus
    b. Mars
    c. Jupiter
    d. Saturn
26. The closest major galaxy to the Milky Way is the
    a. Andromeda Galaxy
    b. Bode's Galaxy
    c. Large Magellanic Cloud
    d. Cigar Galaxy

27. The acronym for spectral classifications is
    a. ABCDEFG
    b. OBAFGKM
    c. YKWIM
    d. TAFSCI
28. The hottest type of star is
    a. Blue
    b. White
    c. Yellow
    d. Red
29. Which of the following explains why Pluto is classified as a dwarf planet rather than a full-fledged planet?
    a. It does not orbit the Sun directly.
    b. It lacks sufficient mass to achieve a nearly round shape.
    c. It has not cleared its neighboring region of other objects.
    d. It does not have any natural satellites.
30. What accounts for the significant difference in time it takes for sunlight to travel from the Sun's core to its surface compared to its journey from the Sun's surface to Earth?
    a. The Sun's core emits light at a slower speed than its surface.
    b. Photons undergo numerous absorptions and re-emissions in the dense solar interior, delaying their escape.
    c. Gravitational forces accelerate photons as they leave the Sun, shortening their travel time to Earth.
    d. The vacuum of space slows down the photons, extending their journey to Earth.