

# “Outer Space”

## A Fun Family Quiz



The Enjoyable Way to Learn

**Education**Quizzes

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## 10 Steps to an Enjoyable Quiz

1. Print out the questions (Pages 4 to 16)
2. Print out an answer sheet (Page 3) for each person or team
3. Appoint a quizmaster (usually mum or dad!)
4. Each person or team puts their identification at the top of the answer sheet
5. The quiz-master asks each question in turn and reads out the four multiple choice answers - a, b, c and d
6. Each person or team uses their answer sheet to write a, b, c or d against each question number
7. After all the questions have been asked the participating people or teams swap their answer sheets with each other so that nobody marks their own sheet!
8. The quizmaster reads out the correct letter (a, b, c, or d) for each question and each corresponding answer on the answer sheet is ticked if correct
9. On each sheet the number of correct answers is recorded
10. The person or team with the most correct answers is the winner

**No fighting now – it's only a game!**

# Answer Sheet

Name of Person or Team .....

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Total Correct \_\_\_\_\_

For the eyes of the quizmaster only - correct answers are in red!



1. This quiz is all about outer space, which we think of as being very far away. Space is in fact the same distance as from Liverpool to which other city?

[a] **Sheffield**

[b] Paris

[c] New York

[d] Sydney

Space isn't really very far at all – a mere 62 miles above our heads. You could drive there in less than an hour – if you had a car that could go upwards that is!

2. We haven't been going into space for very long at all. We started sending unmanned rockets up in the 1940s. Then Yuri Gagarin became the first man to leave our atmosphere on the 12<sup>th</sup> April 1961. Which country was he from?

[a] The USA

[b] China

[c] **Russia**

[d] The UK

The first woman in space was also Russian. Valentina Tereshkova made her flight on June 16<sup>th</sup> 1963

3. The first man to walk on the Moon was American. He did this on July 20<sup>th</sup> 1969, but what was his name?

[a] Buzz Aldrin

[b] Louis Armstrong

[c] Buzz Lightyear

[d] **Neil Armstrong**

Buzz Aldrin was the second man to walk on the Moon. His mother's maiden name was, believe it or not, Marion Moon!

4. When men first came back from the Moon they were placed in quarantine for 3 weeks. Why?

[a] Because one of them had contracted an unknown disease

[b] **In case they'd brought back any alien lifeforms**

[c] Because they were behaving strangely

[d] Because staff at the Space Centre had contracted tuberculosis

At the time we were not sure whether there might be alien viruses or bacteria on the Moon. As a precaution, the astronauts were placed into quarantine to protect Earth's population. We now know that there are no lifeforms on the Moon – microscopic, or otherwise

5. Moving on to the planets, how many are there in our solar system?

[a] Seven

[b] **Eight**

[c] Nine

[d] Ten

They are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Until recently, Pluto was also classed as a planet - but no longer (more on that later!)

6. Which planet is closest to the Sun?

[a] **Mercury**

[b] Venus

[c] Earth

[d] Mars

Despite being closest to the Sun, Mercury is not the hottest planet – that title belongs to Venus, where temperatures can reach 462°Celsius!

7. Days on Venus are longer than on any other planet. How much time passes between sunrise and sunset there?

[a] 34 hours

[b] 34 days

[c] **34 weeks**

[d] 34 months

Because it's closer to the Sun than we are, a year on Venus lasts for only 225 days. That means its days are longer than its years!



8. Life has been found on only one of the planets. Which?

- [a] Jupiter
- [b] Mars
- [c] Venus
- [d] **Earth**

Our planet has just the right temperature for liquid water, an essential ingredient for life. It's the only planet we know of where life exists – at least for now! Scientists believe that we may find life on Europa, one of Jupiter's moons, which might also have liquid water



9. Mars is probably the most famous of the planets. It is named after the Roman god of what?

- [a] The sea
- [b] Love
- [c] The sky
- [d] **War**

Mars' red colour led to it being associated with bloodshed, at least to the Greeks and Romans. The Babylonians named it Nergal after their god of fire, and the Mesopotamians after Guglanna, the destructive bull of their mythical underworld

10. The highest mountain in the Solar System is on the planet Mars. What is its name?

- [a] Ares Astra
- [b] **Olympus Mons**
- [c] Romulus Prime
- [d] Big Green Man

Olympus Mons is actually a volcano. It stands some 21.23 km above Mars' surface – that's well over twice the height of Mount Everest!

11. The planet Jupiter is famous for which feature?

- [a] **Its red spot**
- [b] Its blue poles
- [c] Its green fields
- [d] Its yellow submarine

This spot is larger than the Earth and is actually an atmospheric storm. It was first seen in 1830, so has been going on for at least 177 years - and probably much longer than that!

12. Jupiter has more moons than any of the other planets. How many of them have been discovered so far?

- [a] 7
- [b] 17
- [c] 27
- [d] 67

And that's just the ones we know of! Saturn gives Jupiter a run for its money, with 62 known moons. Uranus has 27, Neptune 14, Mars 2 and Earth 1. Mercury and Venus are the only planets without any moons

13. Saturn is renowned for its rings, but what are they made of?

- [a] Ice
- [b] Rock
- [c] Iron
- [d] Rubber

The rings are made of countless frozen water particles which form a 20 metre thick disc with a diameter of 150,000 miles. That's almost 20 times the size of the Earth!

14. The strongest winds ever recorded on Earth lasted for 3 seconds and reached a speed of 302 mph. Neptune has the strongest winds in the Solar System. How fast do they go?

- [a] 600 mph
- [b] 800 mph
- [c] 1,000 mph
- [d] 1,300 mph

Neptune is a long way from the Sun, so you might think it's cold and still. But the planet has a mysterious way of heating its atmosphere from within, and this heat powers its intense climate

15. Neptune is the most recently discovered planet. In which year was it found?

- [a] 1646
- [b] 1746
- [c] 1846
- [d] 1946

It was spotted at the same time by two different scientists - English astronomer, John Couch Adams, and French mathematician, Urbain Le Verrier. It was nearly named after one of these but, in keeping with tradition, a Roman god was finally settled on – Neptune, the god of the sea



16. Pluto is no longer considered a planet – what is it classified as instead?

- [a] An elf planet
- [b] **A dwarf planet**
- [c] A goblin planet
- [d] A pixie planet



Pluto was always rather small for a planet - even smaller than our Moon. When other, similar sized objects were discovered they were classified as dwarf planets. Pluto officially joined their ranks and ceased being a planet in 2006

17. Apart from the Earth, how many planets can be seen with the naked eye?

- [a] None
- [b] Three
- [c] **Five**
- [d] Seven

These are the five inner planets (Mercury, Venus, Mars, Jupiter and Saturn). They were known to ancient civilisations long before telescopes were invented

18. The word 'planets' comes to us from the Ancient Greeks. What did it mean to them?

- [a] Worlds
- [b] Gods
- [c] **Wanderers**
- [d] United

The planets seem to move across the background of distant stars when viewed from Earth – hence their Greek name, *asters planetai*, or 'wandering stars'

19. Between the orbits of Mars and Jupiter lies an enormous disc made of billions upon billions of rocks. What is its name?

- [a] The asteroid garden
- [b] The asteroid field
- [c] The asteroid girdle
- [d] **The asteroid belt**

Asteroids come in all shapes and sizes. Most are no larger than grains of sand but some are over 600 km across. The largest, Ceres, is so big (its diameter is the same as the length of Great Britain) that it has been classified as a dwarf planet



20. The Moon is our closest neighbour in space. If we were travelling at 1,000 mph, how long would it take to get there?

- [a] About 10 months
- [b] About 10 weeks
- [c] About 10 days
- [d] About 10 hours

The Moon is an average distance of 240,000 miles from Earth – that's ten times the circumference of the Earth. It took the lunar missions just over 2 days to get there, travelling at an average speed of 4,250 mph

21. Uranus has 27 moons, all named after characters from the works of two English writers: Alexander Pope and which other?

- [a] William Shakespeare
- [b] Charles Dickens
- [c] JK Rowling
- [d] Beatrix Potter

Uranus' moons were the first celestial objects not to be named after figures from classical mythology. The largest one, Titania, is named after the Queen of the Fairies in Shakespeare's A Midsummer Night's Dream

22. Only one of the planets is named after a female character. Which one?

- [a] Mercury
- [b] Earth
- [c] Venus
- [d] Uranus

Venus was the Roman goddess of beauty and love. Earth is the only planet which isn't named after a Roman deity. Instead its name comes from the Old English word for 'ground' – ironic, seeing as 70% of Earth's surface is covered in water!

23. What is the name of the star closest to the Earth?

- [a] Proxima Centauri
- [b] Polaris
- [c] Alpha Centauri
- [d] The Sun

That's right - the Sun is a star and it's only (!) 93 million miles away. The next closest star, Proxima Centauri, is 4 and a quarter light years away – that's 268 trillion times further than the Sun!



24. We are 93 million miles from the Sun.  
How long does it take light to travel that distance?

- [a] 8 seconds
- [b] 8 minutes
- [c] 8 hours
- [d] 8 days

Light travels so fast (300,000 km per hour) that it can cover even this vast distance in a short amount of time. Even so, it does take 8 minutes, so when we look at the Sun we are looking backwards in time



25. Stars are clustered together into galaxies. What is the name of the galaxy we live in?

- [a] The Double-Decker
- [b] The Yorkie
- [c] The Fruit and Nut
- [d] The Milky Way

The word 'galaxy' comes from the Greek word for 'milk'. That's because the Ancient Greeks thought the Milky Way looked like a trail of milk spilt over the sky!

26. Our galaxy is quite large, to say the least! How long would it take to get from one side to the other, travelling at the speed of light?

- [a] 120 years
- [b] 1,200 years
- [c] 120,000 years
- [d] 12 million years

There are as many as 400 billion stars in our galaxy, of which the Sun is just one. Big as it is, our galaxy is nothing special – it's just an average sized collection of stars, amongst at least 100 billion others!

27. From Earth, the Moon appears to grow and then shrink every month. We say that a shrinking moon is 'waning' but what do we call a growing Moon?

- [a] A washing Moon
- [b] A waxing Moon
- [c] A shaving Moon
- [d] A plucking Moon

There are four phases of the Moon which repeat every 29.5 days: new, first quarter, full and third quarter

28. Weightlessness in space can affect astronauts' bodies. Which of the following is NOT true?

- [a] **Weightlessness makes you stronger**
- [b] Weightlessness makes you taller
- [c] Weightlessness makes you thinner
- [d] Weightlessness makes your face chubbier

A lack of gravity means your spine is not under any pressure, so you can grow up to 5 cm! The fluids in your body are not pulled down either, so they enter your head and make your face puffy. But a lack of effort actually weakens your muscles, making you skinnier and weaker

29. Which planet in our solar system is the largest?

- [a] Earth
- [b] **Jupiter**
- [c] Mars
- [d] Saturn

Jupiter is so large that all the other seven planets could be squeezed inside it. No wonder it is known as The King of the Planets!

30. In the 1800s scientists thought they could see what feature on the planet Mars?

- [a] Railway lines
- [b] Roads
- [c] **Canals**
- [d] Cities

The astronomer who discovered the 'canals' thought they were a sign that Mars was home to an alien civilisation. It's since been found out that the 'canals' were nothing more than an optical illusion – there are no little green men taking narrowboat holidays I'm afraid!

31. There are trillions upon trillions of stars in the Universe, but how many can we see from Earth without using a telescope?

- [a] **About 10 thousand**
- [b] About 100 thousand
- [c] About 10 million
- [d] About 100 million

There are probably something like 100 octillion stars (that's a 1 with 29 zeros) in the universe. Most of them are incredibly distant though. On a clear and moonless night, well away from any light pollution, there are 9,096 stars bright enough to be seen from Earth with the naked eye



32. The Andromeda galaxy is the most distant object easily seen from Earth. How far away is it in light years?

- [a] 250 light years
- [b] 250 thousand light years
- [c] **2.5 million light years**
- [d] 2.5 billion light years



A light year is the distance light can travel in 365 days, so the light coming from Andromeda left a long time ago! Even so, it's not very far away, astronomically speaking. In fact, Andromeda is so close, that it will collide with our galaxy 4 billion years from now

33. Which day of the week is named after a planet?

- [a] **Saturday**
- [b] Sunday
- [c] Monday
- [d] Tuesday

The Romans named the days of the week after celestial objects. In England the days were named after Norse gods – except for Saturday, which used to be called 'Sunday Eve' before the Roman name was adopted

34. There are three types of planets: Rocky Planets, Ice Giants and which other?

- [a] Snow Balls
- [b] **Gas Giants**
- [c] Plasma Spheres
- [d] Liquid Titans

Jupiter and Saturn are huge, and made of the gases hydrogen and helium. If they were just a little bit larger, they would have turned into stars

35. Before any humans went into space, animals were sent to see what effect it would have on them. What was the first animal in space?

- [a] A snail
- [b] A dog
- [c] **A fruit fly**
- [d] A chimpanzee

A cargo of fruit flies was sent up in 1947 and returned to Earth alive. Since then monkeys, mice, dogs, frogs, rabbits, rats, cats, chimpanzees, wasps, tortoises, worms, fish, spiders, stick insects, newts, snails, shrimp, jellyfish, ants, moths and geckos have all been launched into space

36. What is the proper name for a shooting star?

- [a] A comet
- [b] An asteroid
- [c] A planetoid
- [d] **A meteor**

When small pieces of rock fall to Earth from outer space they burn up due to the friction with our atmosphere – that's what we see as a shooting star

37. Throughout history, comets have been seen as omens. William the Conqueror saw Halley's Comet in 1066 and took it as a good sign, before fighting in which battle?

- [a] The Battle of Britain
- [b] The Battle of Agincourt
- [c] **The Battle of Hastings**
- [d] The Battle of the Bulge

Comets were not always taken as good omens. The Roman Emperor, Nero, saw one and believed it foreshadowed an assassination attempt – so he had all his possible successors killed!

38. Comets come from the outer region of our solar system, so some take a long time to orbit the Sun. Comet West has the longest orbital period of any comet currently known. How long does it last?

- [a] Over 250 years
- [b] Over 2,500 years
- [c] Over 25,000 years
- [d] **Over 250,000 years**

We can't yet be sure how long Comet West takes to go around the Sun. It's at least 254,000 years but could be as long as 6.5 million years! For comparison, Halley's Comet takes 76 years to make the journey

39. The largest moon in the Solar System orbits Jupiter. What is its name?

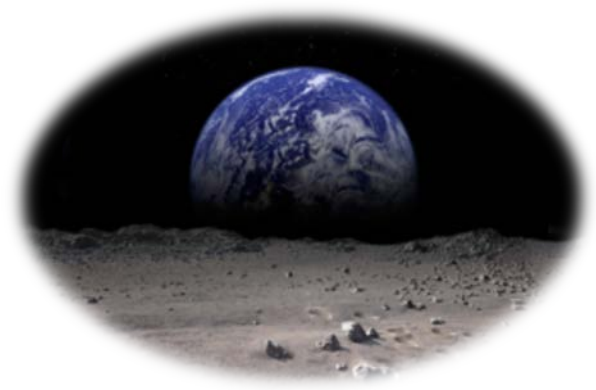
- [a] **Ganymede**
- [b] Titan
- [c] Canny Lad
- [d] Cyclops

Ganymede (named appropriately after the god Jupiter's attendant) is 5,624 km across – that's larger than the planet Mercury and nearly as big as Mars!



40. Our Moon is the 5<sup>th</sup> largest in the Solar System – not bad out of a total of nearly 150! But when did man last walk on the Moon?

- [a] In 1972
- [b] In 1982
- [c] In 1992
- [d] In 2002



12 men have walked on the Moon in total. The last to set foot there was Eugene Cernan who did so in December 1972 – hopefully we'll be going back there very soon

41. The biggest thing in our solar system is the Sun. It could hold all the planets, moons, comets and asteroids how many times over?

- [a] 7 times over
- [b] 17 times over
- [c] 70 times over
- [d] 700 times over

99.86% of the matter in the Solar System is inside the Sun, which has a circumference of 2.7 million miles – that's the same distance as from Earth to the Moon and back 5 times!

42. Big as it is, the Sun is only an average sized star. What type of star is it?

- [a] A red spot
- [b] A yellow dwarf
- [c] A blue moon
- [d] A green giant

Red dwarfs are the smallest stars – they're only slightly bigger than Jupiter. The largest stars are red hyper giants. Some of these are 1,800 times bigger than the Sun!

43. The most distant manmade object is Voyager 2, which was launched in 1977. It carries a message from which world leader?

- [a] The Pope
- [b] The President of the USA
- [c] The Dalai Lama
- [d] The UN Secretary General

In addition, the craft carries a gold disk containing greetings in 55 languages, an assortment of sounds, 90 minutes of music, an hour long recording of brainwaves and 116 images – all this assumes that any aliens finding the disk have record players of course!

44. After 40 years in space, travelling at 40,000 mph, Voyager 2 is now nearing the edge of our solar system. How long would it take to reach the nearest star, Proxima Centauri?

- [a] About 700 years
- [b] About 7,000 years
- [c] **About 70,000 years**
- [d] About 700,000 years

This gives you some idea of the enormity of space. After 40 years of travel we've covered just over one two-thousandth of the distance to the nearest star!

45. Which planet has the longest year?

- [a] Jupiter
- [b] Saturn
- [c] Uranus
- [d] **Neptune**

Being the planet furthest out from the Sun, Neptune takes the longest to complete its orbit. A year on Neptune lasts for 60,182 Earth days – that's 164 years and 9 months!

46. Some of the planets have nicknames. Venus is called the Veiled Planet and Jupiter the King of the Planets. What is Mars' nickname?

- [a] The Chocolate Planet
- [b] **The Red Planet**
- [c] Little Earth
- [d] Rudolf

Mars has a lot of iron oxide (better known as rust) in its soil. This gives the planet its red colour. Mars also has red skies, but they change to blue at dawn and dusk – exactly the opposite of what happens on Earth!

47. The Moon occasionally gets in between the Sun and the earth, casting a shadow on our planet. What do we call these events?

- [a] Lunar eclipses
- [b] Full moons
- [c] **Solar eclipses**
- [d] New moons

There are an average of 2.4 solar eclipses every year, somewhere on Earth. A lunar eclipse is different – they're formed when the Earth's shadow falls on the Moon



48. We get most of our heat from the Sun.  
How hot is the Sun on its surface?

- [a] 500° Celsius
- [b] 5,000° Celsius
- [c] 50,000° Celsius
- [d] 500,000° Celsius

The surface of the Sun is quite cool – compared to how hot it is in its centre. At its core, the Sun is 15 million degrees Celsius. It's safe to say that no-one will ever walk on the Sun!



49. Pluto was discovered in 1930 and named after what?

- [a] The Walt Disney character, Mickey Mouse's dog
- [b] The Roman god of the underworld
- [c] Its discoverer, Clyde Tombaugh's dog
- [d] The 3-headed dog which guarded the underworld in Roman myth

The Walt Disney character appeared in the same year that Pluto was discovered and was named after it to capitalise on the media frenzy surrounding the event

50. And finally, in 2004 astronomers discovered 55 Cancri e. This is a planet, 33% of which is made up of what substance?

- [a] Gold
- [b] Custard
- [c] Diamond
- [d] Jelly

55 Cancri e was once a star. Its outer layers were pulled away by the gravity of its sister star, leaving its carbon core behind. The high pressures and high temperatures it was subjected to may well have transformed this carbon into a diamond twice the size of the Earth – imagine how much money that would fetch!