

## THE COMET'S TRAIL

Your Mission...

Find one or two word answers to each of the questions and write them in the correct spaces. (There is a map to help you find the answers.)

Can you see a pattern in the first letters of each answer? This might help you get some of the other answers.

To complete your training you can also crack the code below.

You need to have the first letter of most of the answers to crack the code.

### Part 1

Start near the **Space Now Gallery**.

### QUESTIONS:

1. Comet Encke spends most of its time outside the orbit of Earth but still crosses Earth's orbit. What name is given to an object with this type of orbit.  
(Hint: Try the Near Earth Objects computer in the Space Now Gallery.)
2. Saturn is surrounded by rock and ice that make up its rings. The rest of the planet is so light that it would float in water. What is our model of Saturn (and a duck) floating in?
3. When an object from space hits a planet it leaves a hole where it landed. What is this hole called? (Tip: The Moon is covered with them.)
4. Comets have two tails. One is made of charged particles and called the Gas tail. What is the other tail called? (Tip: On Earth this stuff might make you sneeze. Have a look at the Comet information to help you.)
5. In the 15th Century what did a Pope do to a Comet because he thought it was an agent of the Devil?



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6. Look at the Picture of comet Halley. This is not what a Comet really looks like. What is the name of this type of image? (Tip: The next tip might help)
7. Which Spacecraft hanging from the top of the tower has been on a mission to rendezvous with Halley's comet? (Tip: It also took the orange False-Colour image in the Comet information.)
8. The Greeks thought that a Comet looked like a Star not with a tail but with Long \_\_\_\_\_.  
Tip: It doesn't tie it back.
9. Comets are mainly made of two things. Which one melts as the comet nears the Sun?
10. Which large striped planet was hit by a comet that broke up into 23 bits called a string of pearls?
11. Which belt (not the asteroid belt or Orions belt) do Short Period comets come from?  
Tip: read the Comets section carefully, or see question 15.
12. Short Period Comets have orbits that take **less** than 200 years. What do we call a Comet that has an orbit of **more** than 200 years?
13. The Asteroid belt is made from metallic and rocky objects. What are these objects called if they land on the Earth? Tip: a member of the Space Crew may be able to show you some examples.
14. Asteroids orbit the Sun just like the planets and Comets. When these objects approach the Earth they become known as an N.E.O. What does N.E.O. stand for?
15. Long Period Comets come from a cloud of objects much further out beyond the Kuiper Belt. What is the name of this cloud?
16. Which is the furthest Planet from the Sun (before the Kuiper Belt)?



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17. The most famous person ever to visit The National Space Centre left a plaque between the entrance barriers and the ticketing desks. What is her job?
18. Comets are mainly made of two things. Which one **does not** melt as the comet nears the Sun?
19. Long Period Comets have orbits that take **more** than 200 years. What do we call a Comet that has an orbit of **less** than 200 years?
20. Herschel and his wife discovered Uranus using something they built themselves. What was it?
21. Which planet rolls like a barrel around the Sun because an impact with a large object?
22. Comets were sometimes seen as warnings of disaster. Which Volcano erupted in 75AD?
23. What was Mr Herschel's first name?
24. Which part of the electromagnetic spectrum is used to see bones inside your body. (Tip: Find the curved spectrum wall at the back of the Orbiting Earth Gallery.)
25. A short period comet has a period of more than 200 \_\_\_\_\_?
26. The planet Jupiter was hit by a Comet in 1994. The planets are often seen as Gods. What is the Greek name of the God for the planet Jupiter?



## THE COMET'S TRAIL ANSWER SHEET

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| 1.....  | 14..... |
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| 3.....  | 16..... |
| 4.....  | 17..... |
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| 11..... | 24..... |
| 12..... | 25..... |
| 13..... | 26..... |

### Part 2 - Cracking the Code

The number of the question can be used to represent the first letter from each answer so that A is 1 and Z is 26.

For your next stage of your Astronaut training try to De-code this message below:

**23 5 12 12 / 4 15 14 5 / 1 19 20 18 15 14 1 21 20**

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**13 9 19 19 9 15 14 / 1 3 3 15 13 16 12 9 19 8 5 4**

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