

## Comet's Tale Word Search Puzzle II - Clues (key)

<ol style="list-style-type: none"> <li>1. ( <b>Kuiper Belt</b> ) the band or belt of small objects formed from the solar system's planetary disk outside the orbit of Neptune, and likely source of short-period comets</li> <li>2. ( <b>Oort Cloud</b> ) the large cloud of dust and rocky planetesimals which form a comet reservoir around the solar system</li> <li>3. ( <b>aphelion</b> ) the point in the path of an object orbiting the sun (such as a comet or the earth) where it is farthest from the sun</li> <li>4. ( <b>asteroid</b> ) small, rocky body which orbits the sun; these contain very little icy material so do not develop tails</li> <li>5. ( <b>asteroid belt</b> ) collection of small, rocky bodies found orbiting the sun, mostly between the orbits of Mars and Jupiter</li> <li>6. ( <b>astronomer</b> ) scientist who uses telescopes to study the planets, sun, stars, galaxies, or universe</li> <li>7. ( <b>astronomical unit</b> ) average distance from the earth to the sun: about 150 million kilometers, called "AU"</li> <li>8. ( <b>carbon dioxide</b> ) CO<sub>2</sub> is a common gas at room temperature; in comets it is frozen -- like dry ice</li> <li>9. ( <b>coma</b> ) a hot gas of ions, from the comet's evaporating ices which glows around the nucleus as the comet approaches the sun</li> <li>10. ( <b>comet</b> ) small (few km), sun-orbiting body made of ices and rocky material that descended from the early solar system</li> <li>11. ( <b>dust tail</b> ) visible tail of a comet formed by sunlight reflecting from grains of dust released from the comet nucleus and blown off by the solar wind</li> <li>12. ( <b>ellipse</b> ) sometimes called an oval, this geometric shape has two focus points, or foci</li> <li>13. ( <b>giant planets</b> ) the planets Jupiter, Saturn, and Uranus, which contain most of the planetary mass of our solar system</li> <li>14. ( <b>graphite</b> ) a form of carbon which is found in granular form in the interstellar medium and in the Oort Cloud</li> <li>15. ( <b>interstellar medium</b> ) the thin gas and low density dust which fills the space between the stars</li> <li>16. ( <b>light year</b> ) the distance traveled in one year at the speed of light</li> <li>17. ( <b>long period comet</b> ) comet that travels on a long elliptical path, such that one orbit can take thousands of years</li> </ol>	<ol style="list-style-type: none"> <li>18. ( <b>meteor</b> ) very small bodies of rock or metal that enter the atmosphere and fall toward earth creating luminous tails as they burn</li> <li>19. ( <b>meteor shower</b> ) occurs when the earth encounters a cloud of dust grains and meteors left behind by an orbiting comet; these enter our atmosphere like a "shower"</li> <li>20. ( <b>meteorite</b> ) a meteor which enters the atmosphere and does not burn-up entirely as it falls to the ground as a rock</li> <li>21. ( <b>nucleus</b> ) a small chunk of ices mixed with dust grains and rock, which contain all the comet's mass</li> <li>22. ( <b>orbit</b> ) the path of a body that revolves periodically around another body because of gravity</li> <li>23. ( <b>organic matter</b> ) molecules made up of the most common elements found in living systems: Carbon, Oxygen, Nitrogen, and Hydrogen</li> <li>24. ( <b>perihelion</b> ) the point in the path of an object orbiting the sun (such as a comet or the earth) where it lies closest to the sun</li> <li>25. ( <b>period</b> ) time required for a body like a comet to go once round its orbit and return to the same spot</li> <li>26. ( <b>planetesimals</b> ) small (few km) chunks of dust, rocks and frozen gases which condensed as the solar nebula cooled</li> <li>27. ( <b>plasma</b> ) a hot gas of charged particles</li> <li>28. ( <b>plasma tail</b> ) this part of a comet tail glows with its own light and always points straight away from the sun</li> <li>29. ( <b>short period comet</b> ) a comet whose entire elliptical orbit lies within the solar system, such as Comet Halley</li> <li>30. ( <b>solar nebula</b> ) the cloud of gases and dust from which the sun, and eventually the solar system were created</li> <li>31. ( <b>solar nebula</b> ) the sun and everything that revolves around it, including the nine planets and their moons, asteroids and comets</li> <li>32. ( <b>solar wind</b> ) hot gases and magnetic fields that stream rapidly out of the sun in all directions at all times</li> <li>33. ( <b>sublimate</b> ) the process of changing from a solid directly to a gas, without first melting into a liquid phase</li> </ol>
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