

## "The Elements"

Name \_\_\_\_\_

1. In 1959, when Tom Lehrer wrote the element song, there were \_\_\_\_\_ elements.
2. The ancient Greeks thought there were only four elements: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
3. Most elements are locked together in chemical \_\_\_\_\_.
4. List 3 symbols of the elements that were prized by ancient peoples: \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
5. Iron makes up about \_\_\_\_\_ of the earth's crust.
6. Ancient people collected iron from \_\_\_\_\_.
7. The symbol for iron is \_\_\_\_\_.
8. The symbol for lead, Pb, comes from the \_\_\_\_\_ word "plumbum."
9. The term "mad as a hatter" comes to us from Victorian times, when hat makers used \_\_\_\_\_ to polish top hats. The metal caused symptoms of insanity.
10. The Chinese got mercury from a reddish brown mineral known as cinnabar, which also contained \_\_\_\_\_.
11. The Chinese discovered \_\_\_\_\_ while looking for recipes that would prolong life.
12. Unlike the Chinese alchemists, the European alchemists wanted to make money by turning lead into \_\_\_\_\_.
13. Mr. Kumar tried to smuggle gold, but he really had \_\_\_\_\_ or pyrite.
14. In Hamburg in 1669, Brandt discovered a new element: phosphorus. He called it \_\_\_\_\_ because it glowed without giving off any heat.
15. \_\_\_\_\_ defined an element as something that could not be broken down into a simpler substance.
16. \_\_\_\_\_ is the symbol for oxygen.

17. Joseph Priestly was credited with discovering \_\_\_\_\_.
18. Oxygen makes up \_\_\_\_\_ of the atmosphere.
19. The major part (78%) of the atmosphere is \_\_\_\_\_.
20. An inert element that is used to fill lighthouse bulbs is \_\_\_\_\_.
21. About \_\_\_\_\_ elements go into making a light bulb.
22. Light bulb filaments are made of \_\_\_\_\_.
23. Lithium salts are used in the treatment of \_\_\_\_\_ depression.
24. The element around which all life revolves is \_\_\_\_\_.
25. Some forms of carbon include coal or \_\_\_\_\_.
26. In 1772, Antoine Lavoisier proved that diamonds aren't forever when he burned one using sunlight focused by a \_\_\_\_\_.
27. Carbon is the only chemical that has the ability to form stable \_\_\_\_\_.
28. There are \_\_\_\_\_ known carbon-containing compounds.
29. Russian chemist Dmitri Mendeleev arranged elements in a table according to increasing \_\_\_\_\_.
30. The element \_\_\_\_\_ helped prove Mendeleev's periodic table was correct because he had left a space for it and correctly predicted its properties based on other elements in its group.

## "The Elements"

### Answer Key

1. In 1959, when Tom Lehrer wrote the element song, there were *102* elements.
2. The ancient Greeks thought there were only four elements: *air, fire, earth, and water*.
3. Most elements are locked together in chemical *compounds*.
4. List 3 symbols of the elements that were prized by ancient peoples: *Au, Zn, S, Sn, Hg, Ag, C, Cu, Pb, Fe*.
5. Iron makes up about *5%* of the earth's crust.
6. Ancient people collected iron from *meteorites*.
7. The symbol for iron is *Fe*.
8. The symbol for lead, *Pb*, comes from the *Latin* word "plumbum."
9. The term "mad as a hatter" comes to us from Victorian times, when hat makers used *mercury* to polish top hats. The metal caused symptoms of insanity.
10. The Chinese got mercury from a reddish brown mineral known as cinnabar, which also contained *sulfur*.
11. The Chinese discovered *gunpowder* while looking for recipes that would prolong life.
12. Unlike the Chinese alchemists, the European alchemists wanted to make money by turning lead into *gold*.
13. Mr. Kumar tried to smuggle gold, but he really had *fool's gold* or pyrite.
14. In Hamburg in 1669, Brandt discovered a new element: phosphorus. He called it *cold fire* because it glowed without giving off any heat.
15. *Robert Boyle* defined an element as something that could not be broken down into a simpler substance.
16. *O* is the symbol for oxygen.
17. Joseph Priestly was credited with discovering *oxygen*.

18. Oxygen makes up 21% of the atmosphere.
19. The major part (78%) of the atmosphere is *nitrogen*.
20. An inert element that is used to fill lighthouse bulbs is *krypton*.
21. About 20 elements go into making a light bulb.
22. Light bulb filaments are made of *tungsten*.
23. Lithium salts are used in the treatment of *manic* depression.
24. The element around which all life revolves is *carbon*
25. Some forms of carbon include coal or *diamonds*.
26. In 1772, Antoine Lavoisier proved that diamonds aren't forever when he burned one using sunlight focused by a *magnifying glass*.
27. Carbon is the only chemical that has the ability to form stable *long chains*.
28. There are *10 million* known carbon-containing compounds.
29. Russian chemist Dmitri Mendeleev arranged elements in a table according to increasing *atomic weight*.
30. The element *gallium* helped prove Mendeleev's periodic table was correct because he had left a space for it and correctly predicted its properties based on other elements in its group.