

STUDY GUIDE**Chapter 17****Structure of the Atom**

Find the words chemical and symbol in the word search below. The following is a list of some chemical symbols: Ag, Au, C, Ca, Cl, Cu, Fe, Ne, O, Pb, and Sn. Find the name of the element for each of these chemical symbols in the word search. Words can be up, down, forward, backward, or on a diagonal.

Look for the word model in the word search. Write the missing words in the blanks in the following paragraph about the model of the atom. Then look for these words in the word search.

The model of the atom includes a positively charged center, or _____ which contains two particles, the _____ and the _____. The number of protons is the _____ of an atom. A third particle, the _____, is found in a _____ outside the nucleus. An _____ in the electron cloud is similar to a shelf on a refrigerator. The _____ of an electron is so small that it is impossible to describe exactly where it is in an atom.

K	L	W	A	N	E	O	N	I	W	R	U
N	E	U	T	R	O	N	A	Z	O	S	N
A	D	N	W	S	L	R	F	L	A	Y	E
L	O	O	E	D	U	J	T	O	H	M	G
C	M	T	L	R	R	E	R	C	C	B	Y
H	A	O	R	E	G	O	L	A	E	O	X
E	G	R	P	S	M	Y	L	C	H	L	O
M	I	P	B	A	T	C	L	O	U	D	E
I	O	V	S	O	I	D	A	E	L	N	I
C	R	S	Q	U	N	S	I	L	V	E	R
A	T	O	M	I	C	N	U	M	B	E	R
L	P	E	N	I	R	O	L	H	C	S	L

REINFORCEMENT

Chapter 17

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Use the clues to complete the puzzle.

Across

3. Scientist who developed the planetary model of the atom
7. Element 105
11. Region surrounding the nucleus which is occupied by electrons
13. Atomic number of fluorine (spelled out)
14. Center of atom
15. Symbol for sodium
16. Symbol for silver
18. Fe is the symbol.
21. Name of element used in fluorescent signs
22. Atom of an element with a different number of neutrons
23. Sum of protons and neutrons
25. Only element with atoms which do not have neutrons

Down

1. Element often made into electrical wire
2. Number of protons in an atom
4. Name of element whose symbol is Ru
5. Negatively charged particle
6. Mixture of mostly nitrogen and oxygen
8. 1/12 the mass of a carbon-12 atom
9. Helps us understand something that we cannot see directly
10. These are like shelves where electrons can be found.
12. Equal in number to the number of protons
14. A particle with approximately the same mass as a proton
17. Element used in balloons
19. Element name of radioactive gas that can accumulate in houses
20. Positively charged particle in nucleus
24. The building block of matter

