

How are electrons arranged in an atom?

Lesson Review

Write *true* if the statement is true. If the statement is false, change the underlined term to make the statement true. Write your answers in the spaces provided.

- _____ 1. The lowest energy level of an atom is the one farthest from the nucleus.
- _____ 2. If an electron gains energy, it may jump to a higher energy level.
- _____ 3. The area in an atom where an electron is likely to be found is called the electron cloud.
- _____ 4. The first energy level of an atom can hold two electrons.
- _____ 5. If an atom contains three electrons, then its second energy level would hold three electrons.
- _____ 6. Electrons cannot move from one energy level to another.
- _____ 7. A maximum of eight electrons can be held in the fourth energy level of an atom.
- _____ 8. Electrons are arranged in energy levels.
- _____ 9. The third energy level can hold up to 16 electrons.
- _____ 10. Electrons with higher energy are in the energy levels closest to the nucleus.

Skill Challenge

Skills: *comparing, applying concepts*

Complete the following table.

Element	Atomic Number	Number of Electrons in First Energy Level	Number of Electrons in Second Energy Level	Number of Electrons in Third Energy Level
Helium	2	1.	2.	3.
Nitrogen	7	4.	5.	6.
Sulfur	16	7.	8.	9.
Sodium	11	10.	11.	12.
Chlorine	17	13.	14.	15.

Answer Key

How are electrons arranged in an atom?

Lesson Review

1. closest to
2. true
3. true
4. true
5. one electron
6. can
7. second or outermost
8. true
9. 18 electrons
10. lower

Skill Challenge

1. 2
2. 0
3. 0
4. 2
5. 5
6. 0
7. 2
8. 8
9. 6
10. 2
11. 8
12. 1
13. 2
14. 8
15. 7