



Intro to Chemistry Test - Lesson 3 – The First 20 Elements - Answer Key Page 1

1. How many electrons does it take to fill up ring 1?

- A) 2
- B) 4
- C) 6
- D) 8

The correct answer is A. It only takes two electrons to fill up ring 1 of an atom.

2. How many electrons does it take to fill up either ring 2 or ring 3?

- A) 2
- B) 4
- C) 6
- D) 8

The correct answer is D. It takes 8 electrons to fill up ring 2 and eight electrons to fill up ring 3.

3. Why does the periodic table list the elements in rows and columns?

- A) Because each row of the periodic table corresponds to the rings around the nucleus.
- B) Because each column of the periodic table corresponds to the number of electrons in each ring.
- C) **Both answers A and B are true.**
- D) Both answers A and B are false.

The correct answer is C. Each row of the periodic table indicates the ring around the nucleus, and each column indicates the number of electrons in that ring. That's why there are eight columns, corresponding to the eight total electrons in rings 2 and 3.

4. Which statement about elements is untrue?

- A) Each atom in the periodic table represents a different element.
- B) **There are over 200 different elements in the world.**
- C) All the elements in ring 3 of the periodic table have three rings around their nucleus.
- D) All the elements in the second column of the periodic table have two electrons in their outer ring.

The correct answer is B. There are a little over 100 elements in the world. The largest ones are man-made.

5. Fill in the blanks with the correct element.

_____ stinks.

_____ is used to make borax.

_____, _____, and _____ are used in fertilizers.

_____ is used in advertising signs.

_____ is used in street lights.

_____ is used in welding to keep oxygen away from the weld.

_____ makes strong bones and concrete.

_____ is used in toothpaste.

_____ is used to disinfect swimming pools.

_____ and _____ are used in fireworks and sparklers.

_____ is no longer used to lift blimps and zeppelins.

_____ is found in sand.

_____ makes lightweight, sturdy ladders.

_____ is the reason we breathe.

_____ is the main component of air.

_____ is found in emeralds.

_____ is the black stuff left after burning wood and marshmallows.

_____ is used in batteries.

_____ is used to fill party balloons.

Sulfur stinks.

Boron is used to make borax.

Potassium, nitrogen, and phosphorus are used in fertilizers.

Neon is used in advertising signs.

Sodium is used in street lights.

Argon is used in welding to keep oxygen away from the weld.

Calcium makes strong bones and concrete.

Fluorine is used in toothpaste.

Chlorine is used to disinfect swimming pools.

Magnesium and phosphorus are used in fireworks and sparklers.

Hydrogen is no longer used to lift blimps and zeppelins.

Silicon is found in sand.

Aluminum makes lightweight, sturdy ladders.

Oxygen is the reason we breathe.

Nitrogen is the main component of air.

Beryllium is found in emeralds.

Carbon is the black stuff left after burning wood and marshmallows.

Lithium is used in batteries.

Helium is used to fill party balloons.