



Name:

Mark: 15

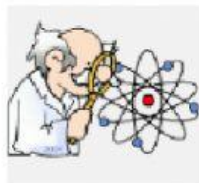
Class:

CHEMISTRY

GRADE 9 General

Diagnostic test

1.

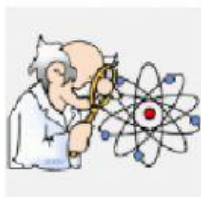


Q. _____ is anything that has mass and takes up space.

answer choices

- ☐ matter ☐ compound
☐ particle ☐ subatomic

2.

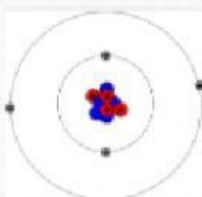


Q. All mater is composed of _____.

answer choices

- ☐ compounds ☐ atoms
☐ water ☐ H₂O

3.



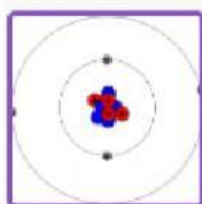
Q. The nucleus of the atom has the _____ and _____ in it.

answer choices

- ☐ protons and neutrons ☐ electrons and neutrons
☐ protons and electrons



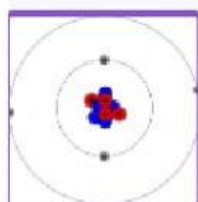
4.



Q. A proton has a _____ charge.

answer choices

- ☐ positive ☐ negative
- ☐ neutral



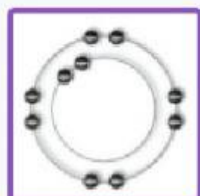
Q. An electron has a _____ charge.

answer choices

- ☐ positive ☐ negative
- ☐ neutral

5.

6.



Q. The diagram shows the arrangement of electrons in a neon atom. How many protons are present in this atom's nucleus?

answer choices

- ☐ 10 ☐ 8
- ☐ 2 ☐ There is not enough information to answer this question.



Q. What law of motion does this picture represent?

answer choices

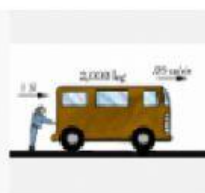
- ☐ Newtons 3rd law ☐ Newtons 4th law
- ☐ Newtons 1st law ☐ Newtons 2nd law

7.

8.



9.



Q. What law of motion does this picture represent?

answer choices

☐ Newtons 1st law

☐ law of gravity

☐ Newtons 4th law

☐ Newtons 2nd law

10



Q. A unbalanced force means that an object is

answer choices

☐ zero net force

☐ changing its motion

☐ sitting still

☐ object at rest

12.



Q. What is the tendency of an object to resist a change in motion?

answer choices

☐ coffee

☐ motion

☐ inertia

☐ gravity



13.



Q. If I kick a soccer ball across the field, what vocabulary word tells me why the ball would slow down in the grass?

answer choices

- ☐ acceleration ☐ friction
- ☐ gravity

14.

Q. According to Newton's second law of motion, ____.

answer choices

- ☐ $F = m \times v$ ☐ $F = m \times a$
- ☐ $F = p \times v$ ☐ $F = p \times a$

15.

Q. How are isotopes the same and how are they different?

answer choices

- ☐ Same neutrons different atoms ☐ In the nucleus
- ☐ Same atoms, different neutrons ☐ Atoms are heavier than isotopes