SNC 1P - Chemistry Review

Physical and Chemical Properties & Changes
Fill in the blanks below using the following words

state	**original**	**description**	**hardness**	**combustibility**
behaviour	**colour**	**chemical**	**texture**	**senses**
flammability	**properties**	**evaporating**	**physical**	**dissolving** **new**

1. A physical property is a *description*_____of an object. It can usually be made by using your five _*senses*_____.

2. Examples of physical properties include ___*texture*_____, ___*colour*___ and ___*hardness*.

3. A chemical property describes the *behaviour* of a substance as it becomes a ____*new*_____ substance.

4. ___*flammability*____and *combustibility*____are examples of chemical properties..

5. In a ___*physical*_____ change, the substance involved stays the same.

6. All changes of *state*_____are physical changes.

7. Examples of physical changes include: *dissolving*_____ and *evaporating*.

8. When the __*original*_____substance is changed into one or more different substances, known as a ____*chemical*_____ change.

9. In a chemical change, the new substance formed has new *properites*

10. List 5 clues that a chemical reaction has occurred.

1. ____odour _____
2. ____new colour_____
3. ____precipitate_____
4. ____bubbles_____
5. ____energy released or absorbed_____

12. Decide and explain chemical or physical change Chemical or Physical Change

	Chemical or Physical	Reason
Water evaporating	Phys	Change of state
Ripping paper	Phys	Change of size
Water freezing	Phys	Change of state
Dissolving Kool Aid	Phys	Change of size
A candle burning	Chem.	New substances formed
Wax melting	Phys	Change of state
Baking a cake	Chem.	New substance formed

13. Is rusting, a specific example of corrosion, a physical or chemical change?

Chemical

14. List 3 ways corrosion can be prevented?
i) ____painting_____ ii) oil spraying_____iii) _removing moisture____

15. What material is responsible for the colour in fireworks? metals____

16. <u>Matter.</u> Match the description on the right with the term on the left.

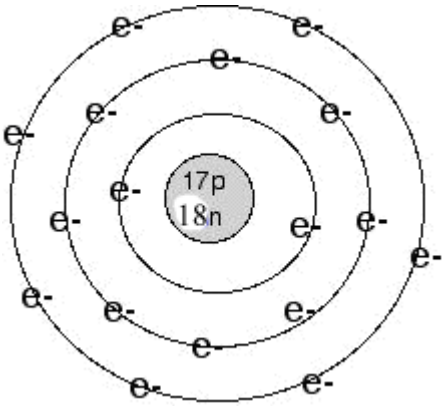
Matter F	A. dense metal causing nervous system damage
Element K	B. consisting of one kind of atom or molecule
Compound H	C. a mixture of metals
Atom J	D. salad dressing (oil and water)
heterogeneous D	E. a naturally occurring compound containing metal
homogenous I	F. has mass and occupies space
mixture L	G_ minerals mixed in with rock
pure substance B	H. 2 or more elements in chemical combination
molecules M	I_ Kool Aid
ore G	J. smallest particle of matter
heavy metal A	K. Ne
mineral E	L. consisting of 2 or more pure substances
alloy C	M. a combination of 2 or more atoms

17. Fill in the Subatomic Particles chart below

Particle	Charge	Mass	Location in the atom
Electron	Negative	**1/2000**	**Around nucleus**
Neutron	**Neutral**	**1**	**inside nucleus**
Proton	**positive**	**1**	**Inside nucleus**

18. For Chlorine, atomic number 17;

Draw a Bohr Rutherford Diagram



Write in Standard Atomic Notation

35
Cl
17

19. <u>Counting Atoms.</u> Name the atoms present and state number of atoms in each of the following.

	Type	**Number**
i) NaCl	____sodium___	___1____
	____chlorine_____	___1____
	TOTAL	___2____
ii) $NaHC0_3$	____sodium _____	___1____
	____hydrogen_____	___1____
	____carbon _____	___1____
	_____oxygen _____	___3____
	TOTAL	**___6____**

20. <u>Compound Formulas.</u> Make a formula with the given elements and provide a name.

Elements	Formula	Name
Ca (2), F(1)	**Calcium fluoride**	**CaF2**
C(4), 0(2)	**Carbon oxide**	**CO2**
N(3), H(1)	**Nitrogen hydride**	**NH3**

<u>21. Periodic Table True or False.</u>

a) Mendeleev arranged the elements according to their atomic number ___F__
b) Currently, the periodic table is arranged according to the atomic masses ___F__
c) There are more metals than non- metals ___T__
d) The metalloids share properties of both metals and non-metals __T_
e) Elements with a full electron shell are stable gases _T__
f) Mercury and Bromine are liquids at room temperature __T_
g) the horizontal rows going across the table are called groups __F_
h) the vertical chemical families have similar properties __T_