





Unit 2 – Matter and Chemical Change

Student Name _____

Class _____

Section 2

Nature of Matter Over Time – Periodic Table

- The first chemists lived before 8000 B.C. Because metals had not been discovered, humans used only simple tools made from these ...
 - rocks, scissors and paper
 - wood pulp and ink
 - stones and bones**
 - plants and animal remains
- This is derived from “khemeia” (a Greek word) ...
 - Caustic
 - Chemistry**
 - Copper
 - Copernicus
- ‘alkimiya’ (an Arabic word) translates as ...
 - Alchemy
 - Alkali
 - Apostle
 - The Chemist**
- The scientist who developed the ‘billiard ball’ model of the atom was ...
 - Lavoisier
 - Boyle
 - Libeu
 - Dalton**
- Most models of the atom include the sub-atomic particles, called electrons, orbiting the nucleus. The quantum model of the atom has these electrons in ...
 - a charged cloud**
 - fixed orbits
 - random patterns
 - scattered orbits
-  This ancient element symbol means ...
 - copper
 - silver
 - gold**
 - tin
-  This element symbol means ...
 - oxygen
 - hydrogen
 - silver
 - carbon**
- Demetri Mendeleev wanted to find a pattern that would allow him to predict the properties of elements not yet discovered. By using information cards he charted the pattern that seemed to work. The characteristic that showed that the properties of elements vary periodically was the ...
 - color
 - atomic number
 - atomic mass**
 - symbol



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9.

19	2
K	8
Potassium	8
39.0983	1

In this element –
Potassium –
 19 refers to the ...

- A. mass
- B. reactivity
- C. number
- D. Ion charge

10.

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In this element –
Potassium –
 39.0983 refers to the ...

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Use this periodic table information to answer the next two questions

1.0																	4.0
H																	He
1																	2
6.9	9.0											10.8	12.0	14.0	16.0	19.0	20.2
Li	Be											B	C	N	O	F	Ne
3	4											5	6	7	8	9	10
23.0	24.3											27.0	28.1	31.0	32.1	35.5	39.9
Na	Mg											Al	Si	P	S	Cl	Ar
11	12											13	14	15	16	17	18
39.1	40.1	45.0	47.9	50.9	52.0	54.9	55.8	58.9	58.7	63.5	65.4	69.7	72.6	74.9	79.0	79.9	83.8
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
85.5	87.6	88.9	91.2	92.9	95.9	(99)	101.1	102.9	106.4	107.9	112.4	114.8	118.7	121.8	127.6	126.9	131.3
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
132.9	137.3	138.9	178.5	181.0	183.9	186.2	190.2	192.2	195.1	197.0	200.6	204.4	207.2	209.0	(210)	(210)	(222)
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
55	56	57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86

11. In the table above the following elements would be described as the Noble Gases.
- A. He, Ne, Ar, Kr, Xe, Rn
 - B. Li, Na, K, Rb, Cs, Fr
 - C. Be, Mg, Ca, Sr, Ba, Ra
 - D. Rf, Db, Sg, Bh, Hs, Mt, Uun
12. How many neutrons does Potassium have?
- A. 15
 - B. 17
 - C. 19
 - D. 20
13. As you move across the periodic table the properties of the elements change. The most reactive metals include ...
- A. sodium and lithium
 - B. iron and copper
 - C. aluminum and carbon
 - D. lead and zinc
14. The periodic table is organized by the patterns of the properties of the elements. The rows in the periodic table vary with the amount of elements they contain. These rows are called ...
- A. groups
 - B. families
 - C. periods
 - D. metals