Atoms, Elements and Matter Notes							
Atoms -							
Elements -							
Examples of elements -							
Physical Change -							
Ex. of physical change -							
Chemical Change -							
Ex. of chemical change							
Mixtures -							
Examples of mixtures -							
Compounds -							
Examples of compounds	3 -						
Molecule -							
Ex. molecule with one el	ement -						

Ex. molecule of a compound -

Solubility -

Soluble substances:

Insoluble substances:

Solution -

Ex. of a solution -

Solute -

Solvent -

Ex. Red food coloring goes into water.

Solute -

Solvent -

Ex. Kool aid is made from sugar, flavoring and water.

Solutes -

Solvent -

Usually as a liquid solvent gets warmer:

Suspension -

Ex. of a suspension -

Colloid -

Ex. of a colloid -

## A beam of light will show in a colloid and suspension, but not a solution.

Law of Conservation of Matter -

Ex. of Conservation of Matter (Physical change) -

Ex. of Conservation of Matter (Chemical change) -

## The Periodic Table

The Periodic Table -

How are the elements arranged on the Periodic Table? -

Properties of metals:

- 1.
- 2.
- 3.
- 4.

Properties of nonmetals:

- 1.
- 2.
- 3.

Metalloids -

## Families or groups of elements on the Periodic Table

What determines the family or group of elements on the Periodic Table? -

Where are families or groups found on the Periodic Table? -

Highly Reactive Metals Family or Group:

1. 2. 3. Less Reactive Metals Family or Group: 1. 2. 3. Nonreactive Gasses Family or Group: 1. 2. 3. 4. Acids and Bases pH scale -Acidic -Ex. of an acid -Basic -

Ex. of a base -

Neutral -

Ex. of a neutral substance -

Indicator -

What happens when an acid and base mix? -

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If this num it refers to most stabl	87 Fr Francium (223)	55 <b>Cs</b> Cesium 132.91	37 <b>Rb</b> Rubidium 85.47	19 Potassium 39.10	11 <b>Na</b> Sodium 22.99	3 Lithium 6.94	1A Hydrogen 1.01	riodic Ta
ber is in par the atomic : e Isotope.	88 <b>Ra</b> (226)	56 <b>Ba</b> Barium 137.33	38 Strontium 87.62	<sup>Calcium</sup> 40.08	12 Mg Magnesium 24.31	4 Be 9.01	2A 22	able of t
rentheses, t mass of the	Actinium (227)	57 <b>La</b> Lanthanum 138.91	39 Yttrium 88.91	21 Scandium 44.96	မ္က		-	he Elerr
hen	104 <b>Rf</b> Putherfordium (261)	72 <b>Hí</b> Hathium 178.49	40 Zirconium 91.22	22 Titanium 47.87	4 <del>8</del> 4			lents
58 69 58 69 140.12 90 7horium 232.04	105 Dubrium (262)	73 <b>Ta</b> Tantalum 180.95	Niobium 92.91	23 Vanadium 50.94	ლი.			
59 Pr 140.91 91 91 231.04	106 Seaborgum (266)	74 W Tungsten 183.84	42 Molybdenum 95.94	Chromium 52.00	68 o	Sodiu	Ator	
000 Neodymium 144.24 92 92 92 92 92 92 92 92 92 92 92 92	107 <b>Bh</b> Bohrium (264)	75 <b>Re</b> Phenium 186.21	43 Tc (98)	25 Mn Manganese 54.94		°³┤┤ ┼┼┤ ╔╔⋧	nic nu Iber of	<u>ç</u>
61 Promethium (145) 93 93 Neptunium (237)	108 <b>Hs</b> Hassium (269)	76 <b>Os</b> 09mium 190.23	44 Ruthenium 101.07	55.85	erage ator	ornic numb ament sym ament nam	mber = proto	Iemis
62 Samarium 150.36 94 Plutonium (244)	109 <b>Mt</b> Meitmerium (268)	77 <b>Ir</b> Iridium 192.22	45 Rhodium 102.91	27 Cobalt 58.93	nic mass*	e po e	ns "	try R
63 Europium 151.96 95 95 Americium (243)		78 <b>Pt</b> Platinum 195.08	46 <b>Pd</b> 106.42	28 Nickel 58.69	đ		no Eir	efere
64 Gadolinium 157.25 96 96 96 247)		79 <b>Au</b> Gold 196.97	47 Silver 107.87	29 63.55	- ਛ ⊐		ne sep etals a nmeta	nce S
65 <b>Fb</b> Terbium 158.93 97 <b>BK</b> 84 (247)		80 <b>Hg</b> Mercury 200,59	48 Cadmium 112.41	65.39 65.39	28 28		arating nd Is.	Sheet
66 Dy Dysprosium 162.50 GR GR GR Cf Californium (251)		81 <b>Ti</b> Thallium 204.38	49 Indum 114.82	Gallium 69.72	13 Aluminum 26,98	Boron 10.81	3A 13	
67 Holmium 164.93 99 Einsteinium (252)		82 <b>Pb</b> Lead 207.2	50 TIN 118.71	32 <b>Ge</b> Germanium 72.61	14 Silicon 28.09	6 <b>Carbon</b> 12.01	4A 4A	
68 Er 167.26 100 Femium Femium (257)		83 <b>Bi</b> Bismuth 208.98	51 Sb Antimory 121.76	33 <b>As</b> Arsenic 74.92	15 Phosphorus 30,97	7 <b>N</b> Nitrogen 14.01	5A	
69 Tra Thulium 161.93 101 Mendelevium (258)		84 <b>Po</b> Polonium (209)	52 <b>Te</b> Tellurium 127.60	34 Selenium 78.96	16 <b>S</b> 32.07	8 Oxygen 16.00	16 6A	Califor
70 Yterbium 173.04 102 Nobelium (259)		85 At Astatine (210)	53 Iodine 126.90	35 <b>Br</b> 79.90	17 Chlorine 35.45	9 Fluorine 19.00	17 7A	nia Star
71 Lutetium 174.97 103 Lr Lawrencium (262)		86 <b>Rn</b> <sup>Radon</sup> (222)	54 Xenon 131.29	36 Krypton 83.80	18 <b>Ar</b> gon 39.95	10 Neon 20.18	18 8A 18 8A 18 18	ndards T
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