Periodic Table Coloring Activity

You have been given a black and white periodic table that needs some color according to the following directions. You can refer to your textbook for help.

Make a color key so your periodic table may be accurately read. Some boxes may be shaded multiple colors – just make sure you can see them all! Have fun and make them pretty. You do not want to stare at an ugly periodic table 0

1. State of Matter at Room Temperature (solid, liquid, or gas)

- There are two elements that are liquid at room temperature: Hg and Br. Use <u>dark blue</u> to outline these elements.
- 11 elements exist as gases at room temperature. Outline their symbols using a red. H, He, N, O, F, Ne Cl, Ar, Kr, Xe, Rn
- The remaining elements are solid at room temperature leave those alone.

2. Metals vs. Nonmetals

- With a <u>dark color</u> add the "stair step" pattern that starts under Boron and extends down to Po and At. This is the division line between metals and nonmetals.
- Use <u>yellow</u> to outline the area where nonmetals are found (do not forget about Hydrogen!)
- Use <u>blue</u> to outline the area in the periodic table where the metals are found.

3. Semi-metals

• Use <u>green</u> to shade in the following elements: B, Si, Ge, As, Sb, and Te. These elements are called semi-metals or metalloids and exhibit both metallic and nonmetallic properties.

4. Specific Families and Blocks

- Color each of the following a different color
 - Alkali Metals
 - Alkaline Earth Metals
 - Transition Metals
 - Inner Transition Metals (Lanthanides and Actinides)
 - Halogens
 - Noble Gases
 - All the rest of the nonmetals (other nonmetals) not in a named family (do not forget about Hydrogen!)

5. Groups and Periods

• Using a black pen, label Groups (1-18) and Periods (1-7)

The Periodic Table

						Colo	or Key										
1																	2
Н																	He
Hydrogen 1.00794																	Helium 4.003
3	4											5	6	7	8	9	10
Li	Be											B	С	Ν	0	F	Ne
Lithium 6.941	Beryllium 9.012182											Boron 10.811	Carbon 12.0107	Nitrogen 14.00674	Oxygen 15.9994	Fluorine 18.9984032	Neon 20.1797
11	12											13	14	15	16	17	18
Na	Mg											Al	Si	Р	S	Cl	Ar
Sodium 22.989770	Magnesium 24.3050											Aluminum 26.981538	Silicon 28.0855	Phosphorus 30.973761	Sulfur 32.066	Chlorine 35.4527	Argon 39.948
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Potassium 39.0983	Calcium 40.078	Scandium 44.955910	Titanium 47.867	Vanadium 50.9415	Chromium 51.9961	Manganese 54.938049	Iron 55.845	Cobalt 58.933200	Nickel 58.6934	Copper 63.546	Zinc 65.39	Gallium 69.723	Germanium 72.61	Arsenic 74.92160	Selenium 78.96	Bromine 79.904	Krypton 83.80
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Те	Ι	Xe
Rubidium 85.4678	Strontium 87.62	Yttrium 88.90585	Zirconium 91.224	Niobium 92.90638	Molybdenum 95.94	Technetium (98)	Ruthenium 101.07	Rhodium 102.90550	Palladium 106.42	Silver 107.8682	Cadmium 112.411	Indium 114.818	Tin 118.710	Antimony 121.760	Tellurium 127.60	Iodine 126.90447	Xenon 131.29
55	56	57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
Cs	Ba	La	Hf	Та	W	Re	Os	Ir	Pt	Au	Hg	TI	Pb	Bi	Po	At	Rn
Cesium 132.90545	Barium 137.327	Lanthanum 138.9055	Hafnium 178.49	Tantalum 180.9479	Tungsten 183.84	Rhenium 186.207	Osmium 190.23	Iridium 192.217	Platinum 195.078	Gold 196.96655	Mercury 200.59	Thallium 204.3833	Lead 207.2	Bismuth 208.98038	Polonium (209)	Astatine (210)	Radon (222)
87	88	89	104	105	106	107	108	109	110	111	112	113	114				69 - 62 - 62 - 63
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt									
Francium (223)	Radium (226)	Actinium (227)	Rutherfordium (261)	Dubnium (262)	Seaborgium (263)	Bohrium (262)	Hassium (265)	Meitnerium (266)	(269)	(272)	(277)					4 6	3
				50	50	60	61	62	62	64	65	66	67	69	60	70	71

58	59	60	61	62	63	64	65	66	67	68	69	70	71
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Cerium	Praseodymium	Neodymium	Promethium	Samarium	Europium	Gadolinium	Terbium	Dysprosium	Holmium	Erbium	Thulium	Ytterbium	Lutetium
140.116	140.90765	144.24	(145)	150.36	151.964	157.25	158.92534	162.50	164.93032	167.26	168.93421	173.04	174.967
90	91	92	93	94	95	96	97	98	99	100	101	102	103
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr
Thorium	Protactinium	Uranium	Neptunium	Plutonium	Americium	Curium	Berkelium	Californium	Einsteinium	Fermium	Mendelevium	Nobelium	Lawrencium
232.0381	231.03588	238.0289	(237)	(244)	(243)	(247)	(247)	(251)	(252)	(257)	(258)	(259)	(262)