

The Periodic Table

Name

Period

Date 9/19/18

Essential Question: How was the Periodic Table constructed, and what are the differences between the three classes of elements?

Dmitri Mendeleev is credited with arranging the first version of our current day Periodic Table (1869).

Mendeleev arranged the elements by increasing Atomic Mass and similar Properties.

Mendeleev was the first to be able to use his table to predict the Properties of undiscovered elements.

Properties of Gallium		
	Mendeleev's predictions	Actual Properties
Atomic mass	68	69.7
Density	6.0 g/cm ³	5.9 g/cm ³
Appearance	soft gray metal	soft gray metal
Melting point	Low melting point	29.8° C

Period – a Row across the table. Each **period** represents an Energy Levels.

Group – a Column down the table. Each **group** represents elements that possess Similar properties.

Period 4

Group 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	H																2	
2	3	4															10	
	Li	Be															Ne	
3	11	12															18	
	Na	Mg															Ar	
4	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
5	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	Te	I	Xe
6	55	56	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
	Cs	Ba	Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
7	87	88	103	104	105	106	107	108	109	110	111	112		114				
	Fr	Ra	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Uub		Uuq				
	57	58	59	60	61	62	63	64	65	66	67	68	69	70				
	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb				
	89	90	91	92	93	94	95	96	97	98	99	100	101	102				
	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No				

