

1900's

(1913) **Henry Moseley** discovered the elements should be arranged based on atomic number. This discovery proved that "the properties of the elements vary periodically with atomic number," instead of atomic weight, as had previously been claimed under periodic law.

(1944) **Glenn Seaborg** discovered the plutonium and the transuranic elements from 94 to 102. He also produced his own version of the "actinides hypothesis," which currently forms two rows under the periodic table of elements. His discoveries were the most recent additions to the periodic table.

The Modern Periodic Table of Elements

(20's) The periodic table is consist of **118** elements. The current table is based on Mendeleev's table, but instead of increasing atomic mass, it arranges the elements by increasing atomic number.

1	2																	18	19	20
H	He																	Ar	K	Ca
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar	K	Ca			
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38			
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr			
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56			
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr			
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74			
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	81	82	83			
87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104			
Fr	Ra	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr	105			

Figure 1. The Modern Periodic Table (flexbooks.ck12.org)