## **Periodic Table Bingo**

## Materials:

Periodic Table Bingo Card Periodic Table of Elements Colored pieces of paper or plastic discs

## **Instructions:**

Print the Periodic Table Bingo Cards (pages 5-44). There are forty unique bingo cards. You may choose to give your students a periodic table to reference.

Begin by reading clues about the element and allow students about 5-10 seconds to mark the appropriate element on their card. Refer to the table (pages 2-4) for clues. Students should listen to the clue, determine if that element is on the card and place a coin, piece of paper, or disc on the indicated symbol. The winner should shout bingo when he/she has marked the correct pattern of elements on the bingo card.

For younger students- You may choose to call out the atomic number of the element and allow the students to reference the periodic.

The more often you play this game the more familiar your students will become with the periodic table of elements.



				Periodic Table of Elements
Name	Symbol	Atomic Number	Atomic Mass	Clue
Hydrogen	Н	1	1	The lightest element, contains only a single proton, can lose or gain only 1 electron
Helium	Не	2	4	The lightest noble gas, filled outer shell with only two electrons, named for the Greek word for sun because first discovered in spectral analysis of sunlight
Lithium	Li	3	7	Active alkali metal from Group I with three protons, forms 1 <sup>+</sup> ions in a salt
Beryllium	Be	4	9	Alkaline earth metal with four protons used in forming strong lightweight alloys with copper
Boron	В	5	11	Metalloid in Group III combines with silicates to form heat- resistant glassware, forms acid used in eardrops and as a pesticide
Carbon	С	6	12	Basis for all organic chemicals, essential for life as we know it on earth, element with four outer-shell electrons that undergo sp <sup>3</sup> hybridization to form four bonding orbitals with tetrahedral structure
Silicon	Si	14	28	The second most abundant element in the Earth's crust; a metalloid with four outer shell electrons used in solar cells, microprocessor chips, and ceramics
Germanium	Ge	32	73	Group IV metalloid used in doping computer chips and transistors
Nitrogen	N	7	14	Most abundant element in the Earth's atmosphere, an element that is relatively non-reactive at normal temperatures, essential for protein formation in living tissues
Phosphorus	Р	15	31	Group V element with three allotropes: white that reacts with air at 30° C and red that is less active; element that is essential to strong root development in plants; element used in fertilizers, explosives, and detergents
Arsenic	As	33	75	Poisonous Group V metalloid used in making semiconductors and in pesticides
Oxygen	0	8	16	Most abundant element on Earth making up 48% of the Earth's crust, atmosphere, and surface water; highly reactive element that supports combustion with many other substances; essential for respiration in most living organisms; ozone is a common allotrope; six outer shell electrons cause it to form 2 <sup>-</sup> ions
Sulfur	S	16	32	Common Group VI element with 3 different allotropic forms, widely used in industry as a component of sulfuric acid, used as a dehydrating agent in paints and plastics
Selenium	Se	34	79	Metalloid in Group VI used in making photocells

Fluorine	F	9	19	Most reactive nonmetal that is never found free in nature. Member of Group VII, the halogen family; forms 1 <sup>-</sup> ions; organic compounds containing this element are used as nonstick cookware and refrigerants; forms compounds used to prevent tooth decay
Chlorine	Cl	17	35	Halogen used as a bleaching agent, component of common table salt, used as a disinfectant and water purifier
Bromine	Br	35	80	Halogen, which is a brownish liquid at room temperature, used in medicines, dyes, and photography
Iodine	Ι	53	127	Halogen used as a disinfectant, in photography and as a salt additive that prevents goiter
Neon	Ne	10	20	Inert gas in Group VIII which produces a red glow in lights.
Argon	Ar	18	40	Noble gas used in welding active metals, denser than air
Krypton	Kr	36	84	An inert element which produces a whitish glow in lights
Xenon	Xe	54	131	First noble gas to form a compound by stripping away electrons, used in photographic lamps
Radon	Rn	86	222	Radioactive noble gas used in treating cancer, can collect in some buildings producing a health hazard
Sodium	Na	11	23	Highly reactive alkali metal of Group I that forms 1 <sup>+</sup> ions and reacts violently with water, never found free in nature and reacts violently with Chlorine of the halogen family to form common table salt, required in the body for proper transmission of nerve impulses
Potassium	K	19	39	Highly reactive member of Group I that reacts violently in water and is required to allow proper transmission of nerve impulses
Cesium	Cs	55	133	Highly reactive Group I metal that is a liquid at warm room temperature (28.5°C), silvery white metal used in making photocells
Rubidium	Rb	37	85	Soft lustrous metal with one electron in its outer shell, reacts violently with moisture, used in spacecraft engines and photocells
Francium	Fr	87	223	Extremely rare radioactive Group I metal, contains 136 neutrons and only 87 protons
Magnesium	Mg	12	24	Lightweight member of the alkaline Earth metals of Group II, forms $2^+$ ions, reacts slowly with water and rapidly with steam, used in making lightweight alloys, found in hydroxide compounds used as antacids
Calcium	Са	20	40	Alkaline earth metal found commonly in the Earth's crust, a limestone used in making cement or concrete, often found in pipes or boilers as a result of hard water, forms $2^+$ ions
Barium	Ba	56	137	Massive Group II element, a radioisotope of which is used as a radioactive tracer in medicine
Radium	Ra	88	226	Radioactive Group II element used to treat cancer and in medical research

Aluminum	Al	13	27	Lightweight metal that forms 3 <sup>+</sup> ions, the third most abundant element in the Earth's crust, more valuable than gold or silver prior to development (1886) of the Hall Perot process for extracting it from bauxite
Tin	Sn	50	119	Stable metal used in making cans, forms $2^+$ and $4^+$ ions, alloy with copper forms bronze
Lead	Pb	82	207	Stable metal once used for plumbing, symbol comes from Latin name <i>plumbum</i> , forms $2^+$ and $4^+$ ions.
Titanium	Ti	22	48	Light transition metal used in making strong lightweight alloys, oxidation numbers $4^+$ and $3^+$
Chromium	Cr	24	52	Shiny transition metal used in electroplating steel, oxidation numbers $6^+$ , $3^+$ and $2^+$
Manganese	Mn	25	55	Transition metal used as catalyst for oxidation-reduction reactions; oxidation numbers $7^+$ , $6^+$ , $4^+$ , $3^+$ and $2^+$ , used in making alloys
Iron	Fe	26	56	Fourth most abundant element in the Earth's crust; used in manufacturing, building materials, and dietary supplements; oxidation numbers $3^+$ and $2^+$ ; main component of steel
Cobalt	Co	27	59	Transition metal used to make alloys used to make magnets and heat-resistant tools, oxidation numbers $2^+$ and $3^+$ , often used to make blue pigment for paints
Nickel	Ni	28	59	Transition metal used in making coins, batteries, jewelry, and electroplating; oxidation numbers $2^+$ and $3^+$
Copper	Cu	29	64	Transition metal used in cooking utensils, wiring, plumbing and electric motors; oxidation numbers $2^+$ and $1^+$
Silver	Ag	47	108	Shiny lustrous metal; best conductor of heat and electricity; oxidation number 1 <sup>+</sup> ; used in jewelry, ornaments, mirror backing, and dental fillings
Gold	Au	79	197	Valuable metal used as base for many money systems; used in jewelry, coins, and dentistry; oxidation numbers $3^+$ and $1^+$
Cadmium	Cd	48	112	Transition metal used to make yellow pigments in paint, electroplating, batteries, and as control rods in nuclear reactors
Mercury	Hg	80	201	Toxic transition metal, which is a liquid at room temperature; used in thermometers, barometers, electric switches, and paint pigments; alloy with silver that produces dental amalgam
Platinum	Pt	78	195	Transition metal used as catalyst, in electronics, lab ware, and jewelry
Tungsten	W	74	184	Transition metal used in making light-bulb filaments and alloys with high density and high melting point
Vanadium	V	23	51	Transition metal used to make shock resistant steel and used as catalyst
Zinc	Zn	30	65	Transition metal used to galvanize iron, forms alloy with copper called brass, used in dry cell batteries, oxidation number $2^+$
Uranium	U	92	238	Radioactive member of the actinide series used as fuel in nuclear reactors, heaviest natural element

Periodic Table Bingo					
Fr	Co	в	N	Hs	
Cs	Br	Bi	v	Zr	
Ti	Hg	Explore Lab Science Free Space	Sb	С	
Y	Rb	Tc	Ar	Uuo	
Lv	Pt	s	Na	Мо	



Periodic Table Bingo						
Mg	Si	Bh	Pd	Ti		
Uus	Au	Ca	Uup	He		
Cn	Tl	Explore Lab Science Free Space	Sb	Mn		
Y	Sr	Cs	Cs	Ar		
At	v	Br	Hs	Ir		



Periodic Table Bingo					
Se	Sb	w	In	в	
Sr	о	Hg	Ti	С	
Cn	Hf	Explore Lab Science Free Space	Sc	Uut	
Tl	Mn	Li	Ge	Sn	
Ca	Uus	He	Р	v	



Periodic Table Bingo					
Sr	Sb	Ra	Uus	Zr	
Cn	Mt	Lv	Sc	Co	
Mn	Br	Explore Lab Science Free Space	N	Y	
Be	Fr	Bi	Rb	Ne	
Ru	Ро	w	He	Rf	



Periodic Table Bingo					
AK	Ra	Si	Zr	Sn	
Sc	Ti	In	Sr	Uuo	
Be	Ga	Explore Lab Science Free Space	Та	Rb	
Nb	Pd	Cd	Ca	Na	
Uut	Fr	Db	Rb	Uus	



Periodic Table Bingo					
Br	Te	Hf	Rn	Re	
с	Ga	Ba	Rf	Mt	
Ge	Os	Explore Lab Science Free Space	Ds	Au	
в	In	At	Cd	Cs	
Cu	Cn	Р	Fl	Ru	



Periodic Table Bingo					
Co	Mg	Kr	Fe	Hg	
Р	Ir	N	Rh	Cu	
Ru	Se	Explore Lab Science Free Space	С	Та	
Te	Cr	Sr	Y	Rb	
РЬ	Ge	в	Br	Zn	



Periodic Table Bingo						
Ir	Cs	Uus	Ba	Pd		
Uut	Br	Fe	Ag	Ds		
Ni	Te	Explore Lab Science Free Space	Fr	н		
с	Та	Mg	Ga	Ra		
Zn	Hs	в	Y	Bi		



Periodic Table Bingo					
Fr	Hf	Мо	Cs	Та	
Rh	Cs	Н	Cl	Ag	
н	Na	Explore Lab Science Free Space	Cn	Be	
Ru	Cu	Pt	Uus	Sb	
Y	Zn	Fe	v	Ti	



Periodic Table Bingo				
Mn	Rg	Uut	He	Ag
w	Na	Cs	Rb	Н
в	Po	Explore Lab Science Free Space	Sc	Cr
Os	Fr	Rf	Re	Sr
Ds	Sn	Xe	Kr	Мо



Periodic Table Bingo				
Cr	Ga	Ar	С	Zn
Sg	Bh	Ra	о	Н
Na	Hg	Explore Lab Science Free Space	Be	Nb
Al	Uus	Cd	AK	Rb
Ag	Kr	Pb	Mg	в



Periodic Table Bingo				
N	Uup	C1	Sb	Kr
Pt	Fl	w	Fr	Ti
Zn	Н	Explore Lab Science Free Space	Ds	s
РЬ	Bh	Р	Fr	Po
Uus	Ir	Bi	Hg	Mn



Periodic Table Bingo				
Cl	Ро	Rg	Cs	Br
Р	Н	0	Ba	N
Ag	Mn	Explore Lab Science Free Space	Ti	Uus
Uuo	Sg	He	Te	Rb
Mt	Fe	Nb	Та	Ir



Periodic Table Bingo				
Н	Al	Be	Mg	Se
Rh	Uus	Cs	Mt	Rb
Hf	As	Explore Lab Science Free Space	Ra	Ро
Os	Co	Si	Cn	Mo
Lv	Ni	Cu	Pt	Bh



Periodic Table Bingo				
Cs	Mt	Rb	Р	Cr
Au	Uuo	Fr	Fl	Ba
Tl	Kr	Explore Lab Science Free Space	Uus	Rn
Ta	Te	Re	Cl	Ca
Rg	Al	Li	Ir	Hg



Periodic Table Bingo				
Lv	Mt	w	Bh	Pd
v	Re	As	Fr	Sb
Р	Ni	Explore Lab Science Free Space	в	Y
Rh	Sr	In	T1	Se
Ро	AK	Hs	Bi	Cu



Periodic Table Bingo				
В	Na	Ро	Bi	AK
Ag	Fl	Rb	Db	Rf
Ga	Ti	Explore Lab Science Free Space	Cu	Rn
Si	Cl	F	Hf	Mg
Ca	Н	Zn	s	Tc



Periodic Table Bingo				
Fr	Te	Tc	S	Uus
Kr	Pb	Rg	Ra	Rf
A1	Zn	Explore Lab Science Free Space	Lv	Hf
Db	Pd	Sc	Bh	Ni
Sr	W	Se	Ge	Rb



Periodic Table Bingo				
Pt	Fe	Ge	Be	I
At	Cn	Cs	Ca	Mt
Fr	Pb	Explore Lab Science Free Space	Rf	Ni
Р	Rh	Ds	Sc	Na
Cl	Те	Nb	Ir	Br



Periodic Table Bingo				
Ir	Ba	Bh	Fl	Os
s	Sb	At	Cs	Pt
Sn	Nb	Explore Lab Science Free Space	N	Ta
As	Н	Мо	Hf	Mg
Fr	Co	Kr	Fe	Bi



Periodic Table Bingo				
Uut	Rh	Co	Ι	AK
Sc	Ds	Tl	Cn	Ta
As	Н	Explore Lab Science Free Space	Br	Uuo
Fe	Ba	Те	Lv	F
Fr	Al	Li	Ni	Fr



Periodic Table Bingo				
He	Uuo	Ar	Cn	Rg
Co	Н	Mt	Ag	Sr
As	Li	Explore Lab Science Free Space	Hf	Та
Ne	F	Be	Mg	Po
Hg	Kr	Si	Fr	Cu



Periodic Table Bingo				
Os	Uut	Rb	Kr	Zr
Db	Zn	Tl	Cs	Cl
Fr	Ni	Explore Lab Science Free Space	Uus	Sn
N	Fl	Cu	0	s
Al	Si	Н	In	Ti



Periodic Table Bingo				
Xe	Fl	Ge	w	Uus
Fr	Ca	As	Ni	Fr
Os	Та	Explore Lab Science Free Space	Cs	Bh
Sr	Hf	Bi	Te	T1
Rb	Fe	Hs	Ti	Ne



Periodic Table Bingo				
Sr	Ar	Te	Мо	Ru
Li	Na	0	Fr	Rb
AK	Cd	Explore Lab Science Free Space	Ga	Sc
Н	Ca	Xe	Si	s
Lv	Sn	Be	Kı	Co



Periodic Table Bingo				
Р	С	As	Li	Hs
T1	Al	Be	Lv	Fl
Nb	Bh	Explore Lab Science Free Space	Sr	Ds
v	Au	Uut	At	Fr
Ru	I	F	Cs	w



Periodic Table Bingo				
N	о	Pd	Nb	Bh
Uus	Mt	Ga	Hg	Cs
Sb	As	Explore Lab Science Free Space	Н	Br
Sc	Тс	Sr	Hf	He
Ca	Pt	W	Rg	Na



Periodic Table Bingo				
Fr	F	Xe	Lv	Hg
Sr	Db	Re	Fr	Pb
Fl	С	Explore Lab Science Free Space	Cs	Ru
Cu	Kr	He	Cs	W
Co	Br	Tİ	At	Ca



Periodic Table Bingo				
Cs	Mg	Uus	Mn	Re
Rb	Xe	Rf	Н	Uut
Fr	Na	Explore Lab Science Free Space	Pd	s
Li	Be	РЬ	Bh	Sr
Ra	Sn	Та	Ba	Zr



Periodic Table Bingo				
Cl	Xe	Ba	Pb	At
Cs	Cd	Cr	с	T1
Y	Fe	Explore Lab Science Free Space	Tc	Cu
Rf	Ni	Mt	Ti	Br
Rn	Bi	Db	Hs	Kr



Periodic Table Bingo				
Sn	Fr	Cs	Si	w
Na	Co	Bh	Uuo	Po
Ti	Cn	Explore Lab Science Free Space	Pb	Ra
Ni	Sr	Ca	I	Nb
Мо	Н	s	F	Bi



Periodic Table Bingo				
F	AK	Ag	Ge	N
Br	v	н	Cs	Cđ
At	Ca	Explore Lab Science Free Space	Zr	Fl
Sg	Au	Re	Os	Xe
Al	Sc	Lv	в	I



Periodic Table Bingo				
Lv	He	Bi	Rh	Pd
Rb	Uus	Ra	F	Ba
Ca	Re	Explore Lab Science Free Space	Xe	н
Mn	Rn	С	As	Cs
Cd	Fr	Br	Na	Sr



Periodic Table Bingo				
Na	Ra	w	Fr	Bi
Ро	Mt	Bh	Cs	Sr
Ta	Sc	Explore Lab Science Free Space	Te	Uut
Tc	Br	Fl	Db	Hf
Sb	Cs	N	Ga	Ar



Periodic Table Bingo				
Cs	He	Cr	Fl	Br
N	Ni	Cs	Si	Ca
Be	Fe	Explore Lab Science Free Space	Rg	Po
Mn	0	Bi	Ge	Zr
Li	Sr	Те	Ag	Se



Periodic Table Bingo				
Cu	Ag	н	Cs	I
Ni	Br	Hs	w	N
Pt	Bi	Explore Lab Science Free Space	Fr	Fr
Rn	Ba	Mg	Uus	Xe
At	Rh	Sn	Ba	Ds



Periodic Table Bingo				
Ir	F	Bh	Р	T1
Rf	Ba	Sc	Zn	Рb
Kr	Cs	Explore Lab Science Free Space	He	In
w	Sn	Bi	Au	Si
Ga	Hf	Pd	Ar	Sr



Periodic Table Bingo				
Ge	F	Y	Uuo	Ba
Hs	Cs	Si	С	Cu
Rb	Be	Explore Lab Science Free Space	N	Ga
Ar	Р	Se	Pt	Re
AK	в	Xe	Ро	Hg



Periodic Table Bingo					
Ne	Zn	0	Se	Fr	
Zr	Sr	Sc	Re	Мо	
At	Tl	Explore Lab Science Free Space	Lv	I	
In	Si	Rb	Sn	Hg	
Tc	Cs	В	Xe	Hs	



Periodic Table Bingo				
Cu	В	At	Ba	Db
Nb	Ni	Н	Ru	Cd
Uuo	He	Explore Lab Science Free Space	Ir	Co
Rb	Cr	Rg	Ds	F
Sr	Si	Cs	Cs	Uus

