

# THE PERIODIC TABLE

Every high school student is familiar with the periodic table. It is nothing but the tabular arrangement of the chemical elements, arranged on the basis of their atomic numbers, electronic configuration and recurring chemical properties.

Here's a diagram of the standard periodic table:

hydrogen 1 <b>H</b> 1.0079																	helium 2 <b>He</b> 4.0026	
lithium 3 <b>Li</b> 6.941	beryllium 4 <b>Be</b> 9.0122											boron 5 <b>B</b> 10.811	carbon 6 <b>C</b> 12.011	nitrogen 7 <b>N</b> 14.007	oxygen 8 <b>O</b> 15.999	fluorine 9 <b>F</b> 18.998	neon 10 <b>Ne</b> 20.180	
sodium 11 <b>Na</b> 22.990	magnesium 12 <b>Mg</b> 24.305											aluminum 13 <b>Al</b> 26.982	silicon 14 <b>Si</b> 28.086	phosphorus 15 <b>P</b> 30.974	sulfur 16 <b>S</b> 32.065	chlorine 17 <b>Cl</b> 35.453	argon 18 <b>Ar</b> 39.948	
potassium 19 <b>K</b> 39.098	calcium 20 <b>Ca</b> 40.078	scandium 21 <b>Sc</b> 44.956	titanium 22 <b>Ti</b> 47.867	vanadium 23 <b>V</b> 50.942	chromium 24 <b>Cr</b> 51.996	manganese 25 <b>Mn</b> 54.938	iron 26 <b>Fe</b> 55.845	cobalt 27 <b>Co</b> 58.933	nickel 28 <b>Ni</b> 58.693	copper 29 <b>Cu</b> 63.546	zinc 30 <b>Zn</b> 65.39	gallium 31 <b>Ga</b> 69.723	germanium 32 <b>Ge</b> 72.61	arsenic 33 <b>As</b> 74.922	seelenium 34 <b>Se</b> 78.96	bromine 35 <b>Br</b> 79.904	krypton 36 <b>Kr</b> 83.80	
rubidium 37 <b>Rb</b> 85.468	strontium 38 <b>Sr</b> 87.62	yttrium 39 <b>Y</b> 88.906	zirconium 40 <b>Zr</b> 91.224	niobium 41 <b>Nb</b> 92.906	molybdenum 42 <b>Mo</b> 95.94	technetium 43 <b>Tc</b> [98]	ruthenium 44 <b>Ru</b> 101.07	rhodium 45 <b>Rh</b> 102.91	palladium 46 <b>Pd</b> 106.42	silver 47 <b>Ag</b> 107.87	cadmium 48 <b>Cd</b> 112.41	indium 49 <b>In</b> 114.82	tin 50 <b>Sn</b> 118.71	antimony 51 <b>Sb</b> 121.76	tellurium 52 <b>Te</b> 127.60	iodine 53 <b>I</b> 126.90	xenon 54 <b>Xe</b> 131.29	
cesium 55 <b>Cs</b> 132.91	barium 56 <b>Ba</b> 137.33	* 57-70	lutetium 71 <b>Lu</b> 174.97	hafnium 72 <b>Hf</b> 178.49	tantalum 73 <b>Ta</b> 180.95	tungsten 74 <b>W</b> 183.84	rhenium 75 <b>Re</b> 186.21	osmium 76 <b>Os</b> 190.23	iridium 77 <b>Ir</b> 192.22	platinum 78 <b>Pt</b> 195.08	gold 79 <b>Au</b> 196.97	mercury 80 <b>Hg</b> 200.59	thallium 81 <b>Tl</b> 204.38	lead 82 <b>Pb</b> 207.2	bismuth 83 <b>Bi</b> 208.98	polonium 84 <b>Po</b> [209]	astatine 85 <b>At</b> [210]	radon 86 <b>Rn</b> [222]
francium 87 <b>Fr</b> [223]	radium 88 <b>Ra</b> [226]	** 89-102	lawrencium 103 <b>Lr</b> [262]	rutherfordium 104 <b>Rf</b> [261]	dubnium 105 <b>Db</b> [262]	seaborgium 106 <b>Sg</b> [269]	bohrium 107 <b>Bh</b> [264]	hassium 108 <b>Hs</b> [269]	meitnerium 109 <b>Mt</b> [268]	ununnilium 110 <b>Uun</b> [271]	unununium 111 <b>Uuu</b> [272]	ununbium 112 <b>Uub</b> [277]	ununquadium 114 <b>Uuq</b> [289]					

* Lanthanide series	lanthanum 57 <b>La</b> 138.91	cerium 58 <b>Ce</b> 140.12	praseodymium 59 <b>Pr</b> 140.91	neodymium 60 <b>Nd</b> 144.24	promethium 61 <b>Pm</b> [145]	samarium 62 <b>Sm</b> 150.36	europium 63 <b>Eu</b> 151.96	gadolinium 64 <b>Gd</b> 157.25	terbium 65 <b>Tb</b> 158.93	dysprosium 66 <b>Dy</b> 162.50	holmium 67 <b>Ho</b> 164.93	erbium 68 <b>Er</b> 167.26	thulium 69 <b>Tm</b> 168.93	ytterbium 70 <b>Yb</b> 173.04
** Actinide series	actinium 89 <b>Ac</b> [227]	thorium 90 <b>Th</b> 232.04	protactinium 91 <b>Pa</b> 231.04	uranium 92 <b>U</b> 238.03	neptunium 93 <b>Np</b> [237]	plutonium 94 <b>Pu</b> [244]	americium 95 <b>Am</b> [243]	curium 96 <b>Cm</b> [247]	berkelium 97 <b>Bk</b> [247]	californium 98 <b>Cf</b> [251]	einsteinium 99 <b>Es</b> [252]	fermium 100 <b>Fm</b> [257]	mendelevium 101 <b>Md</b> [258]	nobelium 102 <b>No</b> [259]

As it can be seen from the table, there are two elements in the first row – Hydrogen (H) and Helium (He). In the second row, we have Lithium (Li), Beryllium (Be), Boron (B) and so on...

As it can be seen, the periodic table has over 100 elements arranged in multiple rows. However, most students do not have to memorize the full table. It is sufficient if they are well versed with the first 2 or 3 rows only.

In this chapter we will study a wonderful technique by which we can memorize all the elements in the first three rows of the periodic table with the help of a simple and funny story.

But before we begin, let us get acquainted with the elements in the first three rows. Here they are :

- 1) HYDROGEN
- 2) HELIUM
- 3) LITHIUM
- 4) BERYLLIUM
- 5) BORON
- 6) CARBON
- 7) NITROGEN
- 8) OXYGEN
- 9) FLOURINE
- 10) NEON
- 11) SODIUM
- 12) MAGNESIUM
- 13) ALUMINIUM
- 14) SILICON
- 15) PHOSPHOROUS
- 16) SULPHUR/SULFUR
- 17) CHLORINE
- 18) ARGON

As it can be seen, we have a total of 18 elements to remember. We will now form a story with a code word on every line. This code word will help us remember the element associated with it. But first, let us have a look at this small story.

*'Once upon a time, there was a doctor named Mr. Hydrogen. One day he went on a hill and stayed in Hotel Lithium where he ate a lot of strawberries. Feeling bored, he removed his car and boosted the nitro speed. Unfortunately, he banged an ox walking on the road. The ox fell on the floor and hurt its knee. The doctor consoled him with a bottle of soda and gifted him a magnetic leg made of aluminium rods. The ox looked very silly. He remembered the days when he was prosperous; but was now destined to suffer. Even cloning was not possible. With a feeling of revenge, he shot the doctor with his R-GUN'*

I strongly recommend that you read the story once again. Now let us analyze it in proper sequence with the name of the elements in the brackets. Here we go :

- 1) One upon a time, a doctor named Mr. Hydrogen (HYDROGEN)
- 2) Went on a Hill (HELIUM)
- 3) He stayed in Hotel Lithium (LITHIUM)
- 4) Where he ate straw-BERRY (BERYLLIUM)
- 5) But after some time he got BORED (BORON)
- 6) So he removed his CAR (CARBON)
- 7) And boosted the NITRO speed (NITROGEN)
- 8) But banged an OX walking on the road (OXYGEN)
- 9) The ox fell on the FLOOR (FLOURINE)
- 10) And hurt its KNEE (NEON)
- 11) The doctor gave it a bottle of SODA (SODIUM)
- 12) And gifted it a MAGNETIC knee (MAGNESIUM)
- 13) With ALUMINIUM rods (ALUMINIUM)
- 14) The ox looked very SILLY (SILICON)
- 15) He remembered the days when he was PROSPEROUS (PHOSPHOROUS)
- 16) But now he was destined to SUFFER (SULPHUR/SULFUR)
- 17) Even CLONING was not possible (CHLORINE)
- 18) With a feeling of revenge, he shot the doctor with his R-GUN (ARGON)

A quick glance at the technique and you will see the simplicity with which we memorized all the elements. We shall now take a small test to check how much you have remembered.

- a) One day a doctor named Mr. H\_\_\_\_\_ (H\_\_\_\_\_ N)
- b) Went on a H\_\_\_\_\_ (H\_\_\_\_\_ M)
- c) He stayed in Hotel L\_\_\_\_\_ (L\_\_\_\_\_ M)
- d) Where he ate S\_\_\_\_\_ (B\_\_\_\_\_ M)
- e) But after some time he got B\_\_\_\_\_ (B\_\_\_\_\_ N)
- f) So he removed his C\_\_\_\_\_ (C\_\_\_\_\_ N)
- g) And boosted the N\_\_\_\_\_ speed (N\_\_\_\_\_ N)
- h) But banged an O\_\_\_\_\_ walking on the road (O\_\_\_\_\_ N)
- i) The ox fell on the F\_\_\_\_\_ (F\_\_\_\_\_ E)
- j) And hurt its K\_\_\_\_\_ (N\_\_\_\_\_ N)
- k) The doctor gave it a bottle of S\_\_\_\_\_ (S\_\_\_\_\_ M)
- l) And gifted it a M\_\_\_\_\_ knee (M\_\_\_\_\_ M)
- m) With A\_\_\_\_\_ rods (A\_\_\_\_\_ M)
- n) The ox looked very S\_\_\_\_\_ (S\_\_\_\_\_ N)
- o) He remembered the days when he was P\_\_\_\_\_ (P\_\_\_\_\_ S)
- p) But now he was destined to S\_\_\_\_\_ (S\_\_\_\_\_ R)
- q) Even C\_\_\_\_\_ was not possible (C\_\_\_\_\_ E)
- r) With a feeling of revenge, he shot the doctor with his R-\_\_\_\_\_ (A\_\_\_\_\_ N)

Three cheers to you if you have got all the elements correct! On the Internet you will find many different techniques of remembering the periodic table; but to be brutally honest I was not satisfied with any of them and hence decided to make my own technique. I sincerely hoped you have liked it.

In as much as I have discussed only the first three rows, you can go ahead and extend this story for the other rows too. Make sure your story is relevant as well as funny at the same time!

Good luck!!