The periodic table

Period	Group 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 **H** Hydrogen																	2 **He** Helium
2	3 **Li** Lithium	4 **Be** Beryllium											5 **B** Boron	6 **C** Carbon	7 **N** Nitrogen	8 **O** Oxygen	9 **F** Fluorine	10 **Ne** Neon
3	11 **Na** Sodium	12 **Mg** Magnesium											13 **Al** Aluminium	14 **Si** Silicon	15 **P** Phosphorus	16 **S** Sulfur	17 **Cl** Chlorine	18 **Ar** Argon
4	19 **K** Potassium	20 **Ca** Calcium	21 **Sc** Scandium	22 **Ti** Titanium	23 **V** Vanadium	24 **Cr** Chromium	25 **Mn** Manganese	26 **Fe** Iron	27 **Co** Cobalt	28 **Ni** Nickel	29 **Cu** Copper	30 **Zn** Zinc	31 **Ga** Gallium	32 **Ge** Germanium	33 **As** Arsenic	34 **Se** Selenium	35 **Br** Bromine	36 **Kr** Krypton
5	37 **Rb** Rubidium	38 **Sr** Strontium	39 **Y** Yttrium	40 **Zr** Zirconium	41 **Nb** Niobium	42 **Mo** Molybdenum	43 **Tc** Technetium	44 **Ru** Ruthenium	45 **Rh** Rhodium	46 **Pd** Palladium	47 **Ag** Silver	48 **Cd** Cadmium	49 **In** Indium	50 **Sn** Tin	51 **Sb** Antimony	52 **Te** Tellurium	53 **I** Iodine	54 **Xe** Xenon
6	55 **Cs** Caesium	56 **Ba** Barium	57–71 ↓	72 **Hf** Hafnium	73 **Ta** Tantalum	74 **W** Tungsten	75 **Re** Rhenium	76 **Os** Osmium	77 **Ir** Iridium	78 **Pt** Platinum	79 **Au** Gold	80 **Hg** Mercury	81 **Tl** Thallium	82 **Pb** Lead	83 **Bi** Bismuth	84 **Po** Polonium	85 **At** Astatine	86 **Rn** Radon
7	87 **Fr** Francium	88 **Ra** Radium	89–103 ↓	104 **Rf** Rutherfordium	105 **Db** Dubnium	106 **Sg** Seaborgium	107 **Bh** Bohrium	108 **Hs** Hassium	109 **Mt** Meitnerium	110 **Ds** Darmstadtium	111 **Rg** Roentgenium	112 **Cn** Copernicium	113 **Nh** Nihonium	114 **Fl** Flerovium	115 **Mc** Moscovium	116 **Lv** Livermorium	117 **Ts** Tennessine	118 **Og** Oganesson
6				57 **La** Lanthanum	58 **Ce** Cerium	59 **Pr** Praseodymium	60 **Nd** Neodymium	61 **Pm** Promethium	62 **Sm** Samarium	63 **Eu** Europium	64 **Gd** Gadolinium	65 **Tb** Terbium	66 **Dy** Dysprosium	67 **Ho** Holmium	68 **Er** Erbium	69 **Tm** Thulium	70 **Yb** Ytterbium	71 **Lu** Lutetium
7				89 **Ac** Actinium	90 **Th** Thorium	91 **Pa** Protactinium	92 **U** Uranium	93 **Np** Neptunium	94 **Pu** Plutonium	95 **Am** Americium	96 **Cm** Curium	97 **Bk** Berkelium	98 **Cf** Californium	99 **Es** Einsteinium	100 **Fm** Fermium	101 **Md** Mendelevium	102 **No** Nobelium	103 **Lr** Lawrencium

Symbols and names

Name: _____ Class: _____ Date: _____

01. Which element has the symbol Zr? Write its name.

Element name

02. Which element has the symbol Mo? Write its name.

Element name

03. Which element has the symbol Pd? Write its name.

Element name

04. Which element has the symbol Cd? Write its name.

Element name

05. Which element has the symbol Sn? Write its name.

Element name

06. Which element has the symbol Sb? Write its name.

Element name

07. Which element has the symbol Xe? Write its name.

Element name

08. Which element has the symbol Ba? Write its name.

Element name

Atomic numbers and protons

Name: _____ Class: _____ Date: _____

09. What is the atomic number of Sr, and how many protons are in the nucleus of one Sr atom?

Atomic number

Number of protons

10. What is the atomic number of Y, and how many protons are in the nucleus of one Y atom?

Atomic number

Number of protons

11. What is the atomic number of Ag, and how many protons are in the nucleus of one Ag atom?

Atomic number

Number of protons

12. What is the atomic number of In, and how many protons are in the nucleus of one In atom?

Atomic number

Number of protons

13. What is the atomic number of Te, and how many protons are in the nucleus of one Te atom?

Atomic number

Number of protons

14. What is the atomic number of I, and how many protons are in the nucleus of one I atom?

Atomic number

Number of protons

15. What is the atomic number of Cs, and how many protons are in the nucleus of one Cs atom?

Atomic number

Number of protons

16. What is the atomic number of W, and how many protons are in the nucleus of one W atom?

Atomic number

Number of protons

Position and comparison

Name: _____ Class: _____ Date: _____

17. Which element is in period 4 and group 8? Write its symbol.

Element symbol

18. Which element is in period 5 and group 17? Write its symbol.

Element symbol

19. Which element is in the same group as Mg but in period 5? Write its symbol.

Element symbol

20. Which element is in the same period as Kr but in group 11? Write its symbol.

Element symbol

21. Which element is directly to the left of Sb in the same period? Write its symbol.

Element symbol

22. Which element is two positions to the right of Mo in the same period? Write its symbol.

Element symbol

23. An atom has three more protons than one Ge atom. Which element is it? Write its symbol.

Element symbol

24. What is the difference in proton count between one Pb atom and one Ba atom?

Difference

Putting it together

Name: _____ Class: _____ Date: _____

25. Arrange Sn, Pd and Cd in order of increasing atomic number. Write their symbols in order.

First | Second | Third

26. How many protons are there in three Ti atoms altogether?

Total protons

27. How many protons are there altogether in two Ca atoms and three Cl atoms?

Total protons

28. What is the sum of the atomic numbers of Rb and Sr?

Sum

29. How many protons are there in one CO_2 molecule altogether?

Total protons

30. How many protons are there in one SO_3 molecule altogether?

Total protons

31. Consider the formula Al_2O_3. How many Al atoms and O atoms are in one formula unit, and how many protons are there altogether?

Number of Al atoms | Number of O atoms | Total protons

32. How many more protons are in one CO_2 molecule than in one H_2O molecule?

Difference