

Chemistry

Review Game

Rules

- Participants buzz in after the majority of the question is read to answer
 - Each correct response results in 1 point

Rules Continued:

- Incorrect answer: Same question goes to any other person remaining that did not buzz in before - awarded 1 point
 - Next question will go to another set of lab table representatives
- Outside talking amongst lab tables during a round results in deduction of point

Rules Continued:

- First response - only response (cannot change answer)

Question #1

- What are the 3 particles that make up an atom?

Question #2

- When an atom gains or loses an electron, what type of atom does it become?

Question #3

- What is the atomic number of atom equal to?

Question #4

- What type of elements are found in Group 18 of the Periodic Table? They do not react with anything, and its gases can be found in many lighting systems.

Question #5

- C_3H_8
- How many carbon atoms are in this compound?

Question #6

- What is the chemical factor that will increase the rate of a chemical reaction once it has been added?

Question #7

- You freeze a bucket of water into a solid block of ice.
What type of change is this?

Question #8

- How can a chemical reaction seem to gain or lose mass?

Question #9



What is this element's atomic mass?

Question #10

- Chemical compounds have _____ properties from the elements that comprise them.

Question #11

- What particle of the atom is responsible for forming compounds with other atoms?

Question #12

- A number in a chemical formula, which is written to the right slightly below an atomic symbol, indicates how much of that element is present in the compound. What is this number called?

Question #13

- What are the 3 physical factors in which to increase the rate of a chemical reaction?

Question #14

- The chemical compound NH_4 , ammonium, contains what elements?

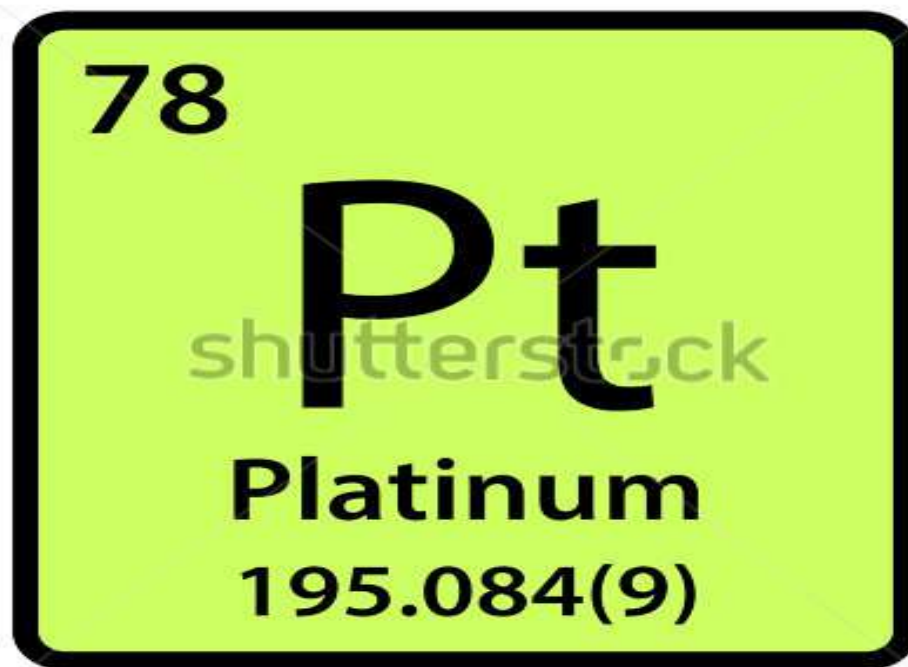
Question #15

- You combine 2 elements, sodium (Na) and chlorine (Cl), to make sodium chloride (NaCl). What type of chemical reaction is this?
 - $2\text{Na} + \text{Cl}_2 \rightarrow 2\text{NaCl}$

Question #16

- Finish the following statement: Matter cannot be _____ nor _____.

Question #17



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What is this element's atomic number?

Question #18

- Where are metals located on the Periodic Table?

Question #19

- Where are non-metals located on the Periodic Table?
 - Extra point – what is the only non-metal located away from the other non-metals on the Periodic Table?

Question #20

- How can you tell if a chemical reaction has produced a gas?

Question #21

- If you have 1 complex reactant, and it breaks apart into 2 or more simple products, what type of chemical reaction is this?

Question #22

- You mix 2 liquids and a white, solid product is formed. What is the evidence of a chemical reaction?

Question #23

- What particles make up the nucleus of an atom?

Question #24

- What is the electric charge of an electron?

Question #25

- You have a solid reactant, and break it apart into smaller pieces before adding it to a second reactant to make the reaction go faster. What factor did you alter to the solid reactant to increase the rate of the reaction?

Question #26

- What is the definition of a product of a chemical reaction?

Question #27

- If a clear liquid does not react with metals, is this liquid an acid or a base?

Question #28

- Acids taste _____, while bases taste _____.

Question #29

- What is the definition of a reactant?

Question #30

- What is the definition of a metalloid?

Question #31

- If you ignite propane, what type of chemical reaction is this?

Question #32

- What is the pH value for a neutral substance?

Question #33

- You mix HCl with baking soda and it begins to bubble. What is the chemical reaction producing?
 - extra point = what type of compound is produced

Question #34

- What is the pH value range for an acid?

Question #35

- How will the mass of the reactants compare to the mass of the products in a chemical reaction?

Question #36

- What is the name of the group of metals located between Groups 3-12 on the Periodic Table and are used in the production of jewelry, currency, etc.?

Question #37

- In the lab in which you added chalk and hydrochloric acid (HCl), you decided to add more HCl to the reaction to make it go quicker. What factor did you alter to the HCl to increase the rate of the chemical reaction?

Question #38

- You burn a pile of wood while camping. What type of change is this?

Question #39

- The speed at which molecules in a chemical move refers to its what?

Question #40

- What type of product would you typically find in a base chemical?
 - a) Food products
 - b) Naturally occurring in cells
 - c) Cleaning products
 - d) None of the above

Bonus Question

Is Bromine (Br) going to share more properties with Chlorine (Cl) or Selenium (Se)?

hydrogen 1 H

helium 2 He

Is Bromine (Br) going to share more properties with Chlorine (Cl) or Selenium (Se)?

hydrogen 1 H 1.0079	Selenium (Se)?																helium 2 He 4.0026
lithium 3 Li 6.941	beryllium 4 Be 9.0122																
sodium 11 Na 22.990	magnesium 12 Mg 24.305																
potassium 19 K 39.098	calcium 20 Ca 40.078	scandium 21 Sc 44.956	titanium 22 Ti 47.867	vanadium 23 V 50.942	chromium 24 Cr 51.996	manganese 25 Mn 54.938	iron 26 Fe 55.845	cobalt 27 Co 58.933	nickel 28 Ni 58.693	copper 29 Cu 63.546	zinc 30 Zn 65.39	gallium 31 Ga 69.723	germanium 32 Ge 72.61	arsenic 33 As 74.922	selenium 34 Se 78.96	bromine 35 Br 79.904	krypton 36 Kr 83.80
rubidium 37 Rb 85.468	strontium 38 Sr 87.62	yttrium 39 Y 88.906	zirconium 40 Zr 91.224	niobium 41 Nb 92.906	molybdenum 42 Mo 95.94	technetium 43 Tc [98]	ruthenium 44 Ru 101.07	rhodium 45 Rh 102.91	palladium 46 Pd 106.42	silver 47 Ag 107.87	cadmium 48 Cd 112.41	indium 49 In 114.82	tin 50 Sn 118.71	antimony 51 Sb 121.76	tellurium 52 Te 127.60	iodine 53 I 126.90	xenon 54 Xe 131.29
caesium 55 Cs 132.91	barium 56 Ba 137.33	57-70 ★	lanthanum 57 La 138.905	cerium 58 Ce 140.12	praseodymium 59 Pr 140.908	neodymium 60 Nd 144.24	promethium 61 Pm [145]	samarium 62 Sm 150.36	europium 63 Eu 151.964	gadolinium 64 Gd 157.25	terbium 65 Tb 158.925	dysprosium 66 Dy 162.50	holmium 67 Hm 164.930	erbium 68 Er 167.259	thulium 69 Tm 168.930	ytterbium 70 Yb 173.054	lutetium 71 Lu 174.967
francium 87 Fr [223]	radium 88 Ra [226]	89-102 ★ ★	lawrencium 103 Lr [262]	rutherfordium 104 Rf [261]	dubnium 105 Db [262]	seaborgium 106 Sg [266]	bohrium 107 Bh [264]	hassium 108 Hs [269]	meitnerium 109 Mt [268]	unnilium 110 Uun [271]	ununium 111 Uuu [272]	unbium 112 Uub [277]	ununquadium 114 Uuq [283]				

*Lanthanide series

**Actinide series

lanthanum 57	cerium 58	praseodymium 59	neodymium 60	promethium 61	samarium 62	europium 63	gadolinium 64	terbium 65	dysprosium 66	holmium 67	erbium 68	thulium 69	ytterbium 70
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb
138.91	140.12	140.91	144.24	144.91	150.36	151.96	157.25	158.93	162.50	164.93	167.26	168.93	173.04
actinium 89	thorium 90	protactinium 91	uranium 92	neptunium 93	plutonium 94	americium 95	curium 96	berkelium 97	californium 98	einsteinium 99	fermium 100	mendeleevium 101	nobelium 102
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No
[227]	232.04	231.04	238.03	[237]	[244]	[243]	[247]	[247]	[251]	[252]	[257]	[258]	[259]