



Reshmi Educational and Charitable Trust ®
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Assessment is always considered as a key component in the process of teaching and learning. A major role is being played by ICT in making the process of assessment easy for teachers.

Assessment is basically used to get an insight into a student's current knowledge. Current knowledge indicates that the student's knowledge base is always changing and judgments about a student's current knowledge will have to be made over a time interval. Assessment serves a variety of purposes for teachers, students, administrators, other school personnel, family members, policy-makers, business leaders, community members, and other establishments of higher education. Assessment is that process which is used for recognizing, collecting and understanding information about the leaning of students. Assessment includes using varied variety of techniques and tools to assess, measure students' learning. Assessment has a lot of importance to improve the learning of the students in class. The teacher sets direction for improving the ongoing teaching learning process.

ICT IN ASSESSMENT Technology is supposed to play an effective and efficient role in assessment. The technology in modern times has reshaped the teaching learning process as it offers various tools that can be used in the classroom to enhance the learning to a great extent. Technology has the ability to support teachers by assessing students' learning in terms of their performance in the classroom. The use of ICT in assessment is now common where it utilizes digital devices which help in the easy construction of assessment tasks for students. It helps in delivery of assessment tasks. Not only construction or delivery, the ICT has the ability to give grades or feedback to students. It is essential for schools to encourage themselves to strengthen their commitment to developing a better assessment practice which can support teachers, students and other stakeholders.

An online examination system has plenty of advantages:

1. It saves paper.

You never have to print an exam for your students and hand them out. Saves paper. Saves trees. Everybody happy.

2. It saves time.

You can setup an exam in such a way that it will auto-grade itself. If you only use multiple

choice questions you never have to check an exam again. The online exam system will take care of that hassle. Completely automated.

3. It saves more time.

The distribution of the exam doesn't take you any time. Just upload the email addresses of your students and send them an invite. And after the exam they get their result instantly.

4. It saves you money.

You don't need to buy any paper. Sending an email is free. On top of that you save on the logistics: your students don't have to assemble in classroom to take the exam.

They can do it within a given time frame from their own device. You don't have to rent a classroom. You don't have to hire someone to check the students taking the exam.

5. It saves the student money.

Students don't have to travel to a specific location to conduct the exam. So even for students from remote area's it's possible to take the exam.


6. It's more secure.

You can make a big question bank with a lot of questions. Every student gets a random selection from that question bank. So it's of little use to share the questions among the exam takers to give them a head start. Try that on paper ;)

And now for the disadvantages:

1. You have to keep in mind that your students will take the exam on their own device in their own time with nobody to check up on them, so you have to alter your questions to provide for this situation. You have to ask questions which are not easily to be retrieved from books or the internet. Or you can add a timer to each question so there is no time to search for the answer.
2. Open text questions are possible, but they don't auto-grade, so you have to check them yourself.
3. An online exam system is a little bit more susceptible for fraud. So you have to keep that in mind if you setup your exam. Do you want to share the results immediately after the result? In that case you can setup a question bank to solve the issue of fraud. Handing out all questions & Answers of a question bank to students is ok. Because they have to learn all the questions & answers by heart. And when they're done they master the material.




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**SAMPLE EVIDENCE SHOWING THE TASKS CARRIED OUT FOR EACH OF THE
SELECTED RESPONSE**

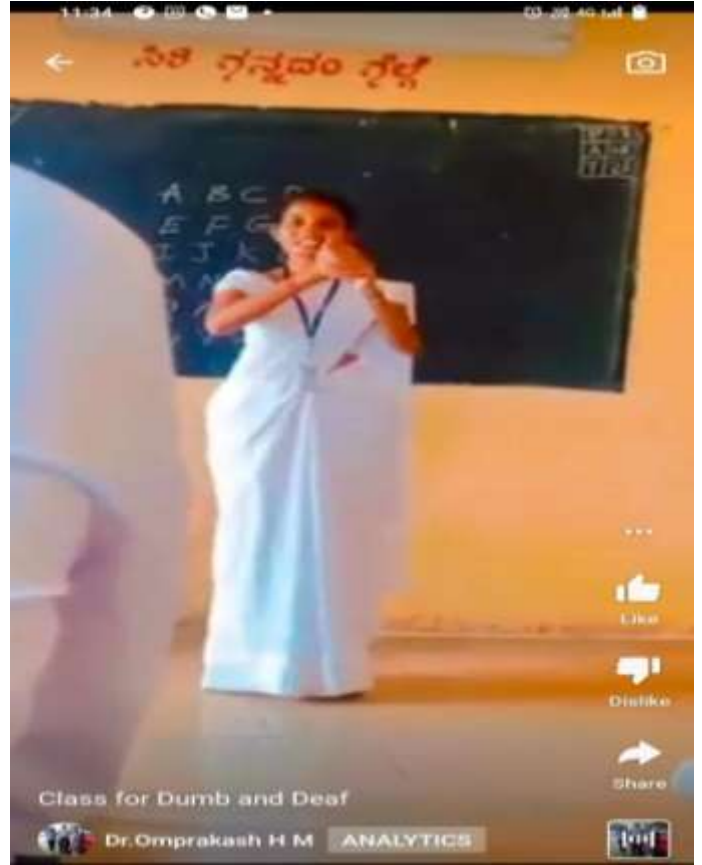


Class for Dumb and Deaf

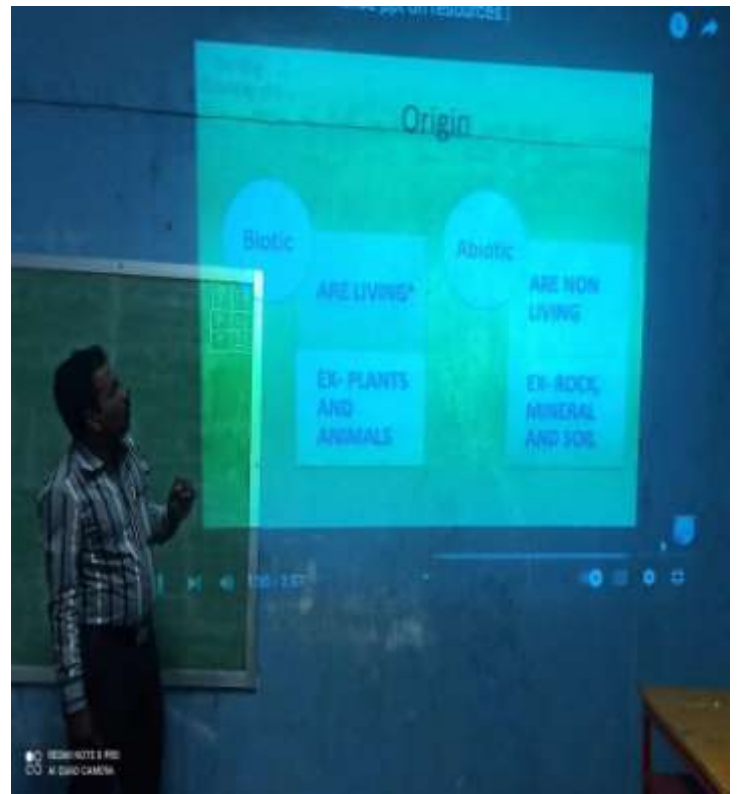
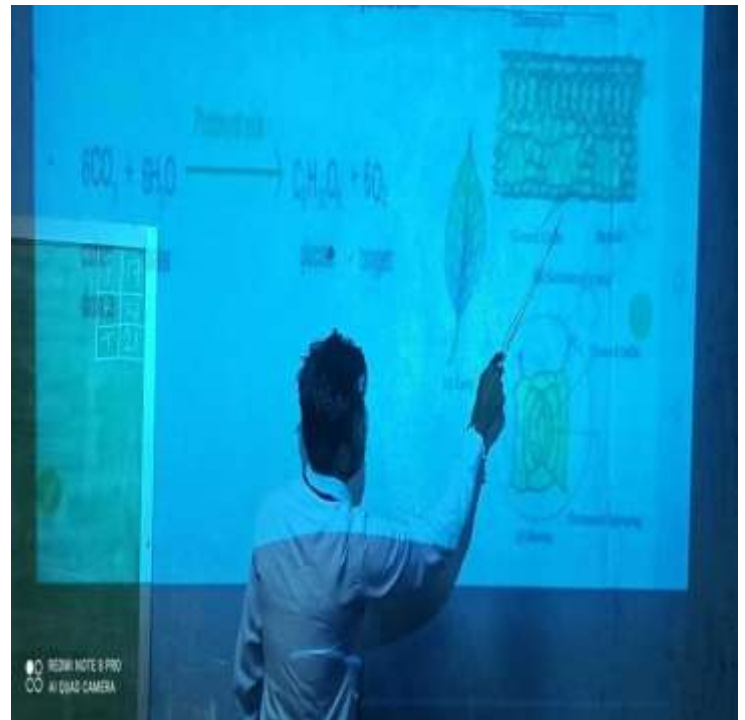
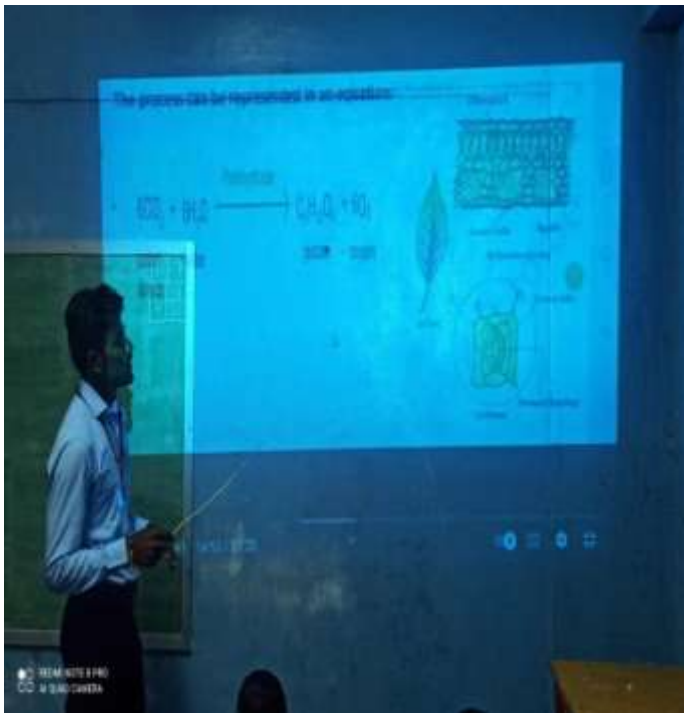
Video from Prof.Omprakash H M
www.youtube.com

<https://youtube.com/shorts/HmbpspHARa4?feature=share>

11:38 AM ✓



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Links:

<https://www.youtube.com/watch?v=VpSMvofCfp4&t=26s>

<https://www.youtube.com/watch?v=yspeykupXoE&t=10s>

<https://www.youtube.com/watch?v=nnARh6-IP9k>

<https://www.youtube.com/watch?v=92sKCwU4bvM>

<https://www.youtube.com/watch?v=YrWfwW4o9Ps>

https://www.youtube.com/watch?v=5p_7zvTiyZc

<https://www.youtube.com/watch?v=z2bunzqpKWE>

<https://www.youtube.com/watch?v=OHd8bXqgsTs>

https://www.youtube.com/watch?v=9jYO_1dW4eA



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B.Ed and M.Ed College, Kalaburagi

Name of the student teacher : Manjunath Yadave
Reg.No. : U04HT21E0015
Subject : Chemistry
Class : 9th
Section : 'A'
Period : III
Unit name : Introduction of Periodic Table
Sub unit name : Arrangement of Elements in PT (Conti.....)
Duration : 45 min.
Date : 28-12-2022
Digital Lesson Plan No. : 2

Guided and Supervised by
Dr. Rajashekhar Shirvalkar

GENERAL INSTRUCTIONAL OBJECTIVES

Students enables to develop,

- Knowledge about periodic table
- Understand the concept groups and periods
- Skill of identifying elements.
- Scientific attitude



SPECIFIC INSTRUCTIONAL OBJECTIVES

In the end of the lesson student able to,

- Recognise the symbols of elements.
- Explain the arrangement of elements in PT.
- Analyse the groups and periods.
- Recall the characteristics of groups and periods.



MATERIAL RESOURCE USED FOR LESSON

- **LAPTOP**
- **OHP PROJECTOR**
- **MICROSOFT POWERPOINT**
- **TEXT BOOKS**
- **URL OF GOOGLE IMAGES**

RS



INTRODUCTION

We have discussed in previous class about the periodic table.

1. What is periodic table?
2. What is group?
3. What is period?
4. What is called IA group elements?
5. What is called IIA group elements?
6. How metals and non metals are classified in the PT?



TODAY WE WILL DISCUSS ABOUT

1. Group-1A: Alkali metals
2. Group-2A: Alkaline earth metals
3. Transition metals
4. Metalloids
5. Non-metals
6. Halogens



Periodic Table of Elements

Alkali Metals

	1 IA	2 IIA											13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	18 VIIIA																																																																																																						
1	1 H																	2 He																																																																																																						
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne																																																																																																						
3	11 Na	12 Mg	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	8 VIII	9 VIII	10 VIII	11 VIII	12 VIII	13 IB	14 IIB	15 IIIB	16 IIIB	17 IIIB	18 IIIB	19 IIIB	20 IIIB	21 IIIB	22 IIIB	23 IIIB	24 IIIB	25 IIIB	26 IIIB	27 IIIB	28 IIIB	29 IIIB	30 IIIB	31 IIIB	32 IIIB	33 IIIB	34 IIIB	35 IIIB	36 IIIB	37 IIIB	38 IIIB	39 IIIB	40 IIIB	41 IIIB	42 IIIB	43 IIIB	44 IIIB	45 IIIB	46 IIIB	47 IIIB	48 IIIB	49 IIIB	50 IIIB	51 IIIB	52 IIIB	53 IIIB	54 IIIB	55 IIIB	56 IIIB	57 IIIB	58 IIIB	59 IIIB	60 IIIB	61 IIIB	62 IIIB	63 IIIB	64 IIIB	65 IIIB	66 IIIB	67 IIIB	68 IIIB	69 IIIB	70 IIIB	71 IIIB	72 IIIB	73 IIIB	74 IIIB	75 IIIB	76 IIIB	77 IIIB	78 IIIB	79 IIIB	80 IIIB	81 IIIB	82 IIIB	83 IIIB	84 IIIB	85 IIIB	86 IIIB	87 IIIB	88 IIIB	89 IIIB	90 IIIB	91 IIIB	92 IIIB	93 IIIB	94 IIIB	95 IIIB	96 IIIB	97 IIIB	98 IIIB	99 IIIB	100 IIIB	101 IIIB	102 IIIB	103 IIIB	104 IIIB	105 IIIB	106 IIIB	107 IIIB	108 IIIB	109 IIIB	110 IIIB	111 IIIB	112 IIIB	113 IIIB	114 IIIB	115 IIIB	116 IIIB	117 IIIB	118 IIIB	119 IIIB	120 IIIB
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr																																																																																																						
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe																																																																																																						
6	55 Cs	56 Ba	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn																																																																																								
7	87 Fr	88 Ra	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Uun	111 Uuu	112 Uub																																																																																														

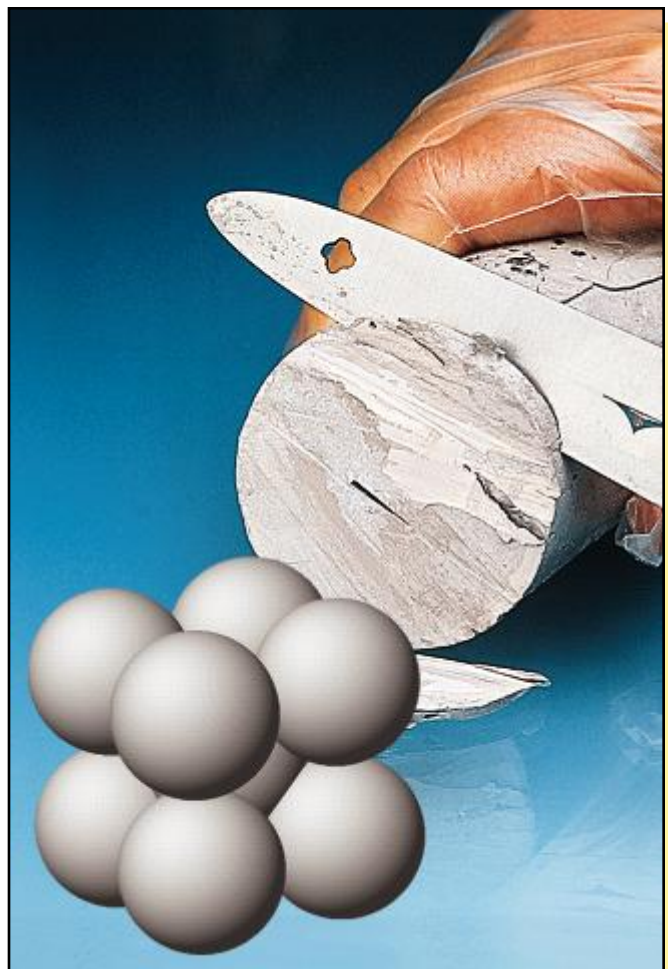
Soft, silvery coloured metals

Very reactive!!!

59	60	61	62	63	64	65	66	67	68	69	70
Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Y
91	92	93	94	95	96	97	98	99	100	101	102
Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No



GROUP 1A: ALKALI METALS



Reaction of
potassium + H_2O

Cutting sodium metal

ALKALI METALS REACTING WITH WATER:

Periodic Table of Elements

1	2											13	14	15	16	17	18	
1	H											III A	IV A	V A	VI A	VII A	VIII A	
2	3	4											5	6	7	8	9	10
	Li	Be											B	C	N	O	F	Ne
3	11	12	13	14	15	16	17	18										
	Na	Mg	Al	Si	P	S	Cl	Ar										
4	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
5	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
6	55	56	57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
	Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
7	87	88	89	104	105	106	107	108	109	110	111	112						
	Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt									

○ Li (Lithium) – least reactive

○ Na (Sodium)

○ K (Potassium)

○ Rb (Rubidium)

○ Cs (Cesium) = more reactive



What would you expect from Francium?!?!

Lanthanides

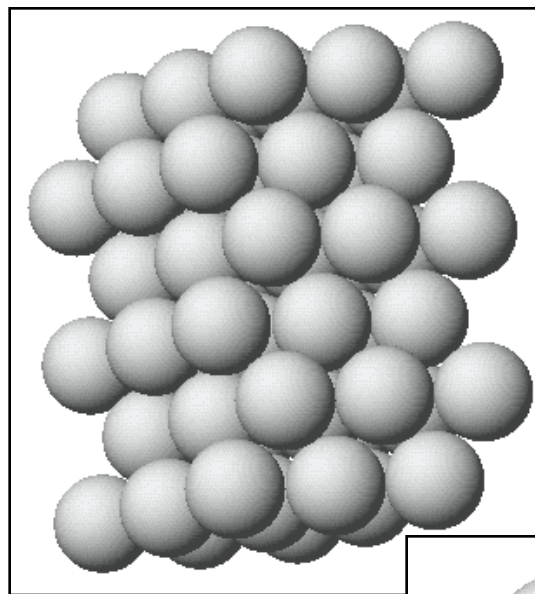
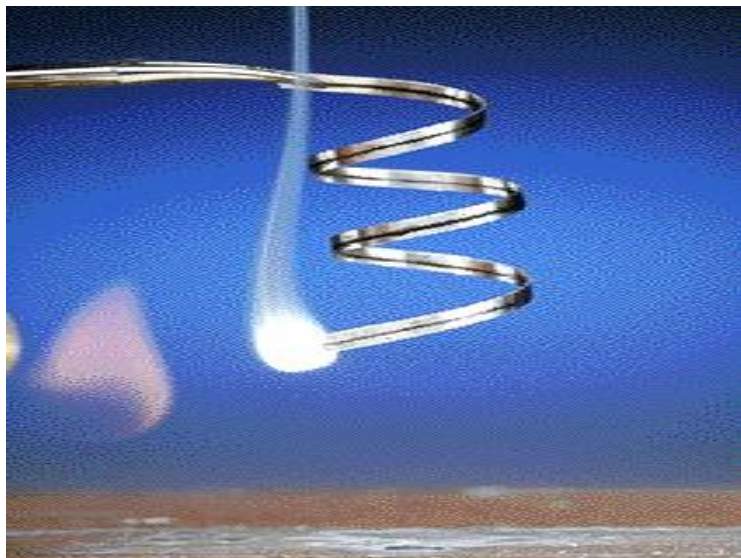
58	59	60	61	62	63	64	65	66	67	68	69	70	71
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu

Actinides

90	91	92	93	94	95	96	97	98	99	100	101	102	103
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

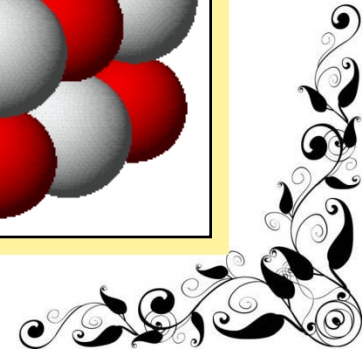
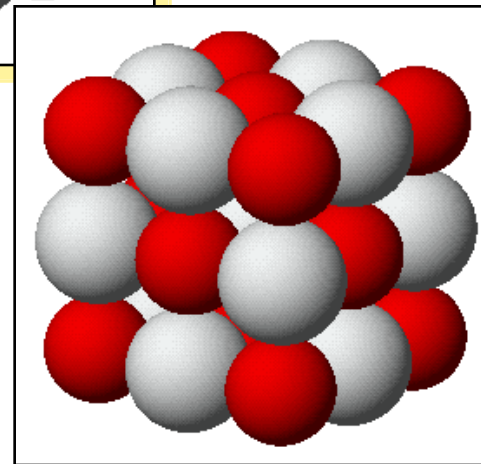


Group 2A: Alkaline Earth Metals



Magnesium

Magnesium
oxide



Periodic Table of Elements

Alkaline Earth Metals

1	2	13	14	15	16	17	18											
IA	IIA	IIIA	IVA	VA	VIA	VIIA	VIIIA											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
H	He																	
3	4																	
Li	Be																	
11	12	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Na	Mg	IIIB	IVB	VB	VIB	VIIA	VIII	VIIIB	IB	IIB								
19	20																	
K	Ca																	
37	38																	
Rb	Sr																	
55	56																	
Cs	Ba																	
87	88																	
Fr	Ra																	

Silvery-White Metals

Fairly reactive

Many are found in rocks in the earth's crust

Lanthanides

58	59	60	61	62	63	64	65	66	67	68	69	70	71
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu

Actinides

90	91	92	93	94	95	96	97	98	99	100	101	102	103
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr



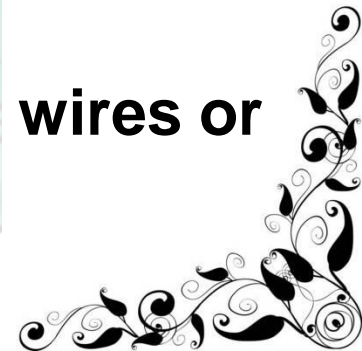
Periodic Table of Elements

Transition Metals

1 IA																		18 VIIIA		
1	H	IIA													13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	2 He
2	3 Li	4 Be													5 B	6 C	7 N	8 O	9 F	10 Ne
3	11 Na	12 Mg	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	8 VIII	9 VIII	10 VIII	11 IB	12 IIB			13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn			31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd			49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg			81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	89 Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Uun	111 Uuu	112 Uub								

Most are good conductors of electricity

Malleable (easily bent/hammered into wires or sheets)



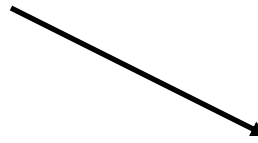
HOW MANY THINGS CAN YOU THINK OF THAT
HAVE TRANSITION METALS IN THEM?





Periodic Table of Elements

Metalloids lie on either side of the “staircase”

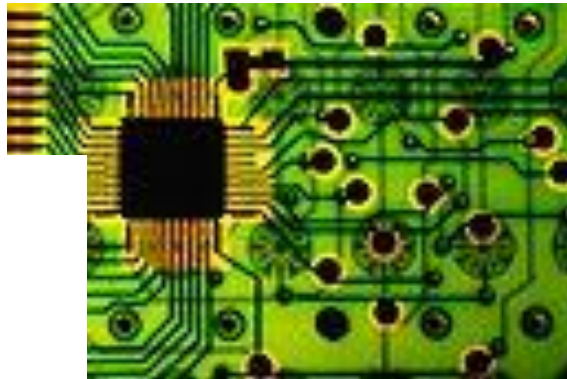


They share properties with both metals and non-metals

Si (Silicon) and Ge (Germanium) are very important “semi-conductors”

													13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	18 VIII A	
1	2																		3 He
3	4												5 B	6 C	7 N	8 O	9 F	10 Ne	
11	12												13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	
19	20												31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr	
37	38												49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe	
55	56												81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn	





Periodic Table of Elements

Nonmetals

1 IA	2	13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	18 VIIIA																								
1 H	2 He	3 Li	4 Be	5 B	6 C	7 N	8 O	9 F	10 Ne	11 Na	12 Mg	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar														
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr														
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe														
55 Cs	56 Ba	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Uun	111 Uuu	112 Uub	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og

Brittle

**Do not conduct
electricity**

59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb
91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No



Periodic Table of Elements

	1 IA	2 IIA											13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	18 VIIIA														
1	1 H																															
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne														
3	11 Na	12 Mg	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	8 VIII	9 VIII	10 VIII	11 IB	12 IIB	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar														
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr														
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe														
6	55 Cs	56 Ba	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Uun	111 Uuh	112 Uub						

Halogens

Most are
poisonous

Fairly reactive –
react with alkali
metals (eg) Na^+
and Cl^-



RECAPITULATION

What are the alkali metals?

What are the alkaline metals?

What are transition metals

What are Halogens?

What are the characteristics of Halogens?



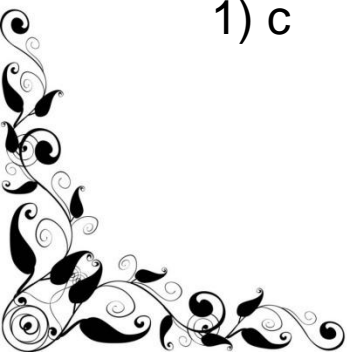
EVALUATION

1. Very reactive metal
2. Halogen
3. Transition metal
4. Metalloid
5. Alkaline earth metal

- a) Aluminum
- b) Manganese
- c) Sodium
- d) Magnesium
- e) Iodine

ANSWER:

1) c 2) e 3) b 4) a 5) d



HOME WORK

Download and watch videos on properties of elements like

1. Alkali metals
2. Alkaline earth metals
3. Transition metals
4. Halogens

