

Researching the Periodic Table!

Choose one element from the periodic table #1-86

Design an **informative poster**

to showcase your element!

What element did you choose?

STEP ONE: RESEARCH

- Find more information about your chosen element through reading books or searching online
- Record this information in the graphic organizer provided on p. 2-3

STEP TWO: DESIGN

- Present this information as a MINI-POSTER!
- Option 1: Old School
 - Create poster using paper & colored pencils/ markers
- Option 2: High-Tech
 - Create poster using Google Docs/ Slides & print it out

STEP THREE: SHOWCASE

• Be prepared to talk about your element in front of the class for about 1 minute

Learning Goal:

I will be able to describe the physical and chemical properties of an element from the Periodic Table, in detail.

POSTER REQUIREMENTS

-all information from graphic organizer

-an image, picture, or drawing or the element -cite at least 3 sources

DUE DATE:

Wednesday, Oct. 3rd, 2016



STEP ONE: RESEARCH (DAY 1-2)

• Use an iPad to look for more information about your chosen element. Here are some helpful websites:

Chem4Kids	Israel Science and Technology
http://www.chem4kids.com/files/elem_intro.html	http://www.science.co.il/PTelements.asp
Ducksters	WebElements
http://www.ducksters.com/science/periodic_table.php	https://www.webelements.com/
About.com	Chemical Elements
http://chemistry.about.com/library/blperiodictablekids.htm	http://www.chemicalelements.com/

- Or, borrow a book from Mr. Bechtold or the librarys about the periodic table
- Fill out the graphic organizer below with information about your element. ALL this information will need to appear on your research poster.

Basic Facts	Element Name & Symbol Element Family	
	Atomic Number	
	Atomic Mass	
Interesting Facts	When it was discovered?	
	How was it discovered? (Or, who discovered it?)	
	Where is the element's name from? Why is it named that?	
	Where in the world it is typically found?	

Element Graphic Organizer

Physical Properties	Color	
	Texture	
	Light Transmission	
	Luster	
	Hardness	
	Density	
	Phase in room temperature	
	Melting point	
	Boiling point	
Chemical Properties	Common compounds in which it is found	
& Uses	(include common names and their chemical formulas)	
	3 uses for this element	
Books & Websites Used		

STEP TWO: DESIGN (DAY 3-5)

- Get your creative juices flowing! Be artistic!
- Your poster will be the size of a regular sheet of paper (8.5 x 11) but feel free to use both sides, if necessary.
- This poster must include a <u>picture of the element</u> at room temperature (either from online or handdrawn). Think about where you want to place it: center? top corner? bottom corner?
- This poster must include all the information outlined in the graphic organizer.
- This poster must include at least 3 sources cited from books or websites
- You have two options to create this poster:
 - Option 1: Old School
 - Use paper, markers, colored pencils and design it by hand
 - Option 2: High-Tech
 - Use a Google Docs or Google Slides to type and add graphics

STEP THREE: SHOWCASE!

- Posters should be complete and ready for viewing. Any posters created using Google Docs/ Slides should be printed in full color.
- Our class will be split into 2 groups. The first group will present their elements while the second group does a gallery walk, listening to presentations. Then each group will switch.
- Be ready to speak about your element for at least 1 minute
 - Remember to to make eye-contact & stand with good posture
 - Make sure your speaking volume is loud enough for your audience
 - The tone of your voice should sound animated and interested

Periodic Table of the Elements																			
Period 1	Ia 1 1.01 H Hydrogen	2 Ila		Alkalin	Metals ne Earth Me ition Metals	stals 📕 /	Lanthanide Actinide Se Halogens		Ab Nu	amic mbar	Atomic Weight	lymbol	13 Illa	14 IVa	15 Va	16 Vla	17 Vila	0 2 4.00 Heburn 19	
2	3 6.54 Lithum 1/24/ 11 22.59	4 2.01 Be Beylluri NOV 12 24.31		Non-n		Dther Meta	Inert Gase	5	Eler	tron **			5 10.81 B Boree W249/ 13 26.90	6 12.01 Carbon 10000	N Nizogen 1s/2s/p ²	8 16.00 Oxygen 1v2syr 16 32.07	F Fluorine tv2tvjr	10 20.18 Nece 18 32.55	
3	Na	Mg	3 IIIb	4 IVb	5 Vb	6 VIb	7 VIIb	8 ≺	9 - VIIIb -	10	11 Ib	12 IIb	Aluninum Perpay	Silcon Silcon Provy	P Phosphorus (Sephyr)	Sullar Incorp.	Cli Chiorine pactory	Ar Argon Pechyr	
4	19 32.10 K Petassium Japan	20 40.00 Caloken Deger	21 44.96 Scandure (ADM44)	22 47.87 Ti Ttankre Jepner	23 S0.54	24 S2.00 Cr Cryonium Jeprer	25 54.94 Mn Mangarese (h(t)/f4/	26 55.85 Fe	27 58.93 CO CORNAR MONTHAN	28 SE.69 Nickel Mickel Mickel	29 63.55 Cu Capper paperson	30 65.30 Zn 2710 3000000	Galure Balure Motorway	32 72.61 Ge Germanium Judit Very	33 74.92 Assenio Jopan Mary	34 78.96 Selenium paperkaye	35 79.90 Bronine (ADICARY	36 83.80 Kr Xryosos 245679697	
5	37 BS.47 Rb Rubislum Jogor	38 87.62 Stortum	39 88.91 Y YTDium (Koletter	40 91.22 Zr Zrcenium Jooketsy	41 92.91 Nobian Nobian	42 95.94 Mo Molybdenum (R)44%	43 (98) TC Technetium (Kiterter	44 101.07 Ru Puthenium (K44764	45 102.91 Rh Produm	46 106.42 Polladum	47 107.87 Ag Silver X (47.97	48 112.41 Cd Cadmium	49 114.82 In Indust Prior 1997	50 111.71 Sn To POACTRY	51 121.75 Sb Antonony Joint Tery	52 127.40 Te Teturium (K)447547	53 126.90	54 131.29 Xee Xenon 3445"597"	
6	55 132.91 CS Cesil.en Pallor	56 137.33 Ba Barium Potor	٠	72 178.49 Hf Hafnium (Ne)#"5010*	73 180.86 Ta Tantalum (hejeriserer	74 183.84 W Tungsten pujartsetor	75 198.21 Re Rhenium popuratory	76 198.23 Oseiun Diseiun	77 192.22	78 196.08 Pt Pladmum (Rej4115/16)	79 196.97 Au Cold Polersense	80 200.69 Hg Mercury poer screet	81 204.38 T I Thatium (Kejer torkey)	82 207.20 Pb Lead (helet the they	83 200.90 Bi Bisman papertormore	Polonium pujertortery	85 (210) At Additive polyantersteps	86 (222) Rn Radon (Kejer-Serteryn	
7	87 (223) Fr Prancium (5)(7)	Radum Patient	*	104 (266) Rf Ratherfordum (Reptrogray	105 (268) Db Dubnum (Reproving	106 (271) Sog Seatongum Pricinany	107 (279) Bh Bohrun Bohrun	108 (277) Hassium Programmer	109 (276) Mt Netherlam Peger 6676	110 (281) DS Demolation (Ref2/6/76/	111 (280) Rog Roengemum	CD Contractor Contractor	113 (204) Uut Dourtsum Protectivity	114 (289) File Plerovium (Representation)	Unperdure	Livernorium Beginner brige	117 (284) UUUS Unumeptum poperarityry	118 (294) Uuo Uurocture (b)pr6cm/mp	
Aa -Solia Aa -Gas	ł	٠	57 138.91 Landhanum (Keßerts)	58 140.12 Cee Cestum (Key#15506/	Praseodymium	60 144.24 Nacional Nacional Nacional	61 (145) Pm Promethium pa(4154)	62 199.39 Sm Barratum pa(erce)	63 161.96 Eu Daropium pajerce	64 167.25 Gd Gadoleium picertarter	65 168.93 Tb Tethun (Kepror	66 162.60 Dysprositure (sa(4100)	67 164.83 Ho Holmium poerfor	68 197.28 Er Erbum picer ter	69 148.93 Tm Thatum (Korrtyr	70 173.04 Yb Yberburr (Kejer-ter	Lutetium (Kejernistice)		
Aa -Liqu Aa - ^{Synt} Pr	id thetically epared	*	89 (227) Actinum (Rolfer7u)	90 232.04 Th Therum (Fo(60714)	91 231.04 Pa Protectnium (Rep?fer?v)	92 238.03 U Unanium (Roj2/16/74	93 (237) Np Neptunium (Reformer 14)	94 (244) PU Platenkam (Re(2712)	95 (243) Am American Profilio	96 (247) Cm Canam Protectiv	97 (247) Bk Berkelsen jagerte	98 (261) Cff Californium (Referrity	99 (252) Ess Ensistent proteitor	100 (257) Fm Femian Pegerite	101 (258) Md Mendalevium prograv	102 (259) No Nobelium Jacgr?h/	103 (262)		91
"Based or or darber: Di (dtttt) grandenates met stader e men tales event la hange." Innovating Science™ by Adon Corporation "Some deter or ordigation as board on "Some deter ordigation as to and on "Some deter ordigation as to and on "Some deter ordigation as to and on "Cutting edge science for the classroom"									9										

Periodic Table of Elements Research Project Poster Rubric

	Exceeds Standards (4)	Meets Standards (3)	Partially Meets Standards (2)	Minimally Meets Standards (1)			
Basic Facts & Interesting Facts	Poster includes all required basic facts & interesting facts as well as additional information	Poster includes all required basic facts & interesting facts	Poster includes some required basic facts & interesting facts	Poster includes little to none of the required basic facts & interesting facts			
Physical Properties	Poster includes all required physical properties as well as additional information	Poster includes all required physical properties	Poster includes some required physical properties	Poster includes little to none of the required physical properties			
Chemical Properties & Uses	Poster includes all required chemical properties and three of the element's uses as well as additional information	Poster includes all required chemical properties and three of the element's uses	Poster includes most chemical properties and less than 3 of the element's uses	Poster includes little to none of the required chemical properties and less than 2 of the element's uses			
Picture	Poster includes a detailed visual of the element	Poster includes a visual of the element	Poster includes a visual of the element but details are lacking	Poster does not include a visual of the element			
Visual Presentation	Poster is exceptionally attractive in terms of design, layout, and neatness	Poster is attractive in terms of design, layout, and neatness	Poster is fine in terms of design and layout, although it may be a bit messy	Poster is poorly designed or messy			
Spoken Presentation	Speaker maintained eye contact and spoke with a loud, clear, and enthusiastic voice	Speaker maintained eye contact and spoke with a loud, clear voice	Speaker mostly maintained eye contact and spoke with a clear voice	Speaker barely maintained eye contact and spoke with a low, mumbled voice			
Cite Sources Used	3 or more sources were cited	3 sources were cited	2 sources were cited	1 or fewer sources were cited			

TOTAL: _____ of 28 A: 28-25 B: 24-22 C: 21-19 D: 18-17 F: 16 and below

COMMENTS: