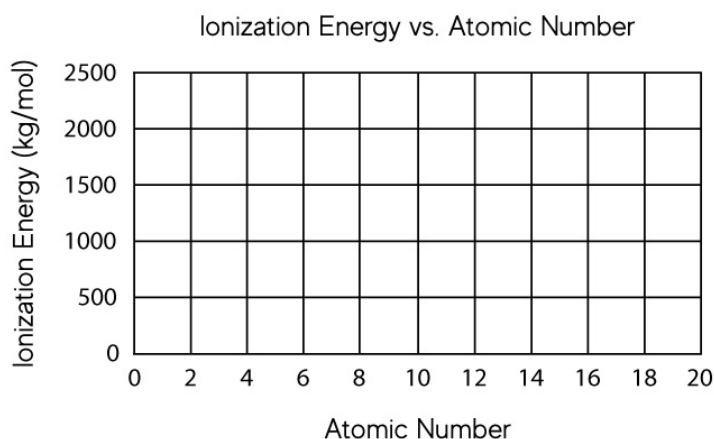


Graphing Periodic Table

The following table gives the ionization energies of the first 20 elements of the Periodic Table.

Atomic Number	Element Symbol	First Ionization Energy (kJ/mol)
1	H	1312
2	He	2372
3	Li	520
4	Be	899
5	B	801
6	C	1086
7	N	1402
8	O	1314
9	F	1681
10	Ne	2081
11	Na	496
12	Mg	738
13	Al	578
14	Si	786
15	P	1012
16	S	1000
17	Cl	1251
18	Ar	1521
19	K	419
20	Ca	590

- 1) Using the data given above, plot a graph of ionization energy (y-axis) vs. atomic number (x-axis).



- 2) Examine this graph and answer the following question:

- a) Which elements are found at the main peaks in the graph (there should be 3)? _____
- b) What do these elements have in common? _____
- c) Which elements are found in the main valley in the graph (there should be 3)? _____
- d) What do these elements have in common? _____

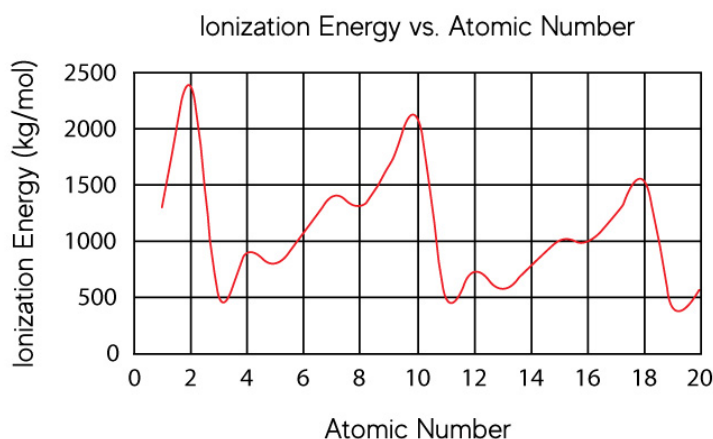
Graphing Periodic Table

Answers

The following table gives the ionization energies of the first 20 elements of the Periodic Table.

Atomic Number	Element Symbol	First Ionization Energy (kJ/mol)
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- 1) Using the data given above, plot a graph of ionization energy (y-axis) vs. atomic number (x-axis).



- 2) Examine this graph and answer the following question:

- a) Which elements are found at the main peaks in the graph (there should be 3)? He, Ne, and Ar
- b) What do these elements have in common? Noble gases
- c) Which elements are found in the main valley in the graph (there should be 3)? Li, Na, and K
- d) What do these elements have in common? Alkali Metals