Atoms — practice & spaced retrieval

Ecolint Campus des Nations

Unit 1 homework · work in pencil · Part 5 with no notes

v2.1

Name _____ **Class** _____

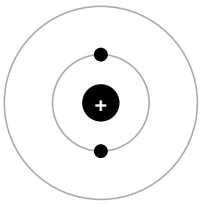
PART 1 Complete the table — work in every direction

Use a periodic table to name an element from its protons. Fill **every** empty cell.

Element	Z	A	Protons	Neutrons	Electrons
Beryllium		9			
	5	11			
		19	9	10	
Sodium		23			
			12	12	
Chlorine		35			
	7	14			
		40		20	

PART 2 Complete the Bohr models

The inner shells are drawn. Add the missing electrons, then write the arrangement underneath.



Carbon (Z = 6)

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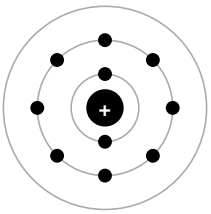

Silicon (Z = 14)

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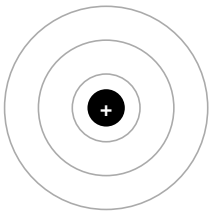

Argon (Z = 18) — all of it

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PART 3 Spot the pattern — isotopes & ions

For each pair, write what is the **same** and what is **different**.

Pair	Same	Different
$^{12}_{6}\mathrm{C}$ and $^{14}_{6}\mathrm{C}$		
a sodium atom and Na^+		
$^{35}_{17}\mathrm{Cl}$ and $^{37}_{17}\mathrm{Cl}$		
an oxygen atom and O^{2-}		

PART 4 What can you work out?

For each, write down **everything** you can work out (protons, neutrons, electrons, charge, element, group…).

1. $^{39}_{19}\mathrm{K}^+$

2. $^{27}_{13}\mathrm{Al}$

3. An atom with 8 protons and 10 neutrons.

PART 5 Spaced retrieval — earlier topics (no notes)

1. Elemental substance, compound substance or mixture? air · NaCl · oxygen · sea water

2. How many atoms in total in **$(NH_4)_2SO_4$**?

3. An element has the arrangement **2, 8, 7**. Which **group** and **period** is it in?

4. Going **down** Group 1, does reactivity increase or decrease? Explain in one line.