



01

LESSON

cenario

chemistry

PUT THE SLIPS OF PAPER INTO THE CORRECT ORDER

- 1 Write the text title on the board. (the periodic table)
- 2 Divide the class into groups of five. Give out the slips. Tell them that the students with the slip number 1 has the beginning of the text. Ask them to work out the correct order of the text and to stand in that order.
- 3 Choose a group to read out their text in their chosen order. The whole class listens and checks.
- 4 Take the slips, give out copies of the text, one for each student.
- 5 The students sit down, they read the text and make sure that their order was correct.



1.The periodic table of the chemical elements (also Mendeleev's table) is a tabular display

of the chemical elements. It is divided into groups and periods. Each element has got a different name and symbol. For example Mg stands for Magnesium, Na for Sodium and N for Nitrogen. Elements are listed in order of increasing atomic number. Which means that e.g. the atomic number of magnesium is bigger

than the atomic number of sodium. The atomic number of carbon is smaller than the atomic number of nitrogen.

The atomic number of an element indicates the number of protons or electrons of an atom of that element.

For example, an atom of carbon has 6 protons in its nucleus so its atomic number is 6. No other element has atoms with 6 protons in its nucleus. As a result, the number of protons or electrons in an oxygen atom is bigger than in an atom of carbon and the number of protons

or electrons in a copper atom is smaller than in an atom of zinc. The mass number of an element indicates the total number of protons and neutrons in the nucleus of an atom of that element. The atomic mass of e.g. sodium is 23.

TASK

2

WRITE ON THE BOARD

1

Write on the board Carbon atom and the numbers., sodium atom and the numbers and that $Z=p=e$ and $A= p+n$.

2

Ask:
What is the atomic number of chlorine?
What is the atomic mass of chlorine?, of oxygen? of hydrogen?
of magnesium?

TASK

3

DECIDE IF THE SENTENCES
ARE TRUE (T) OR FALSE (F)

1 The mass number is always **bigger than** the atomic number.

T F

2 The atomic number of silver is **smaller than** the atomic number of sulfur.

T F

3 The mass number of nitrogen is **bigger than** the atomic number of hydrogen.

T F

4 The number of protons in an oxygen atom is **bigger than** in a gold atom.

T F

TASK

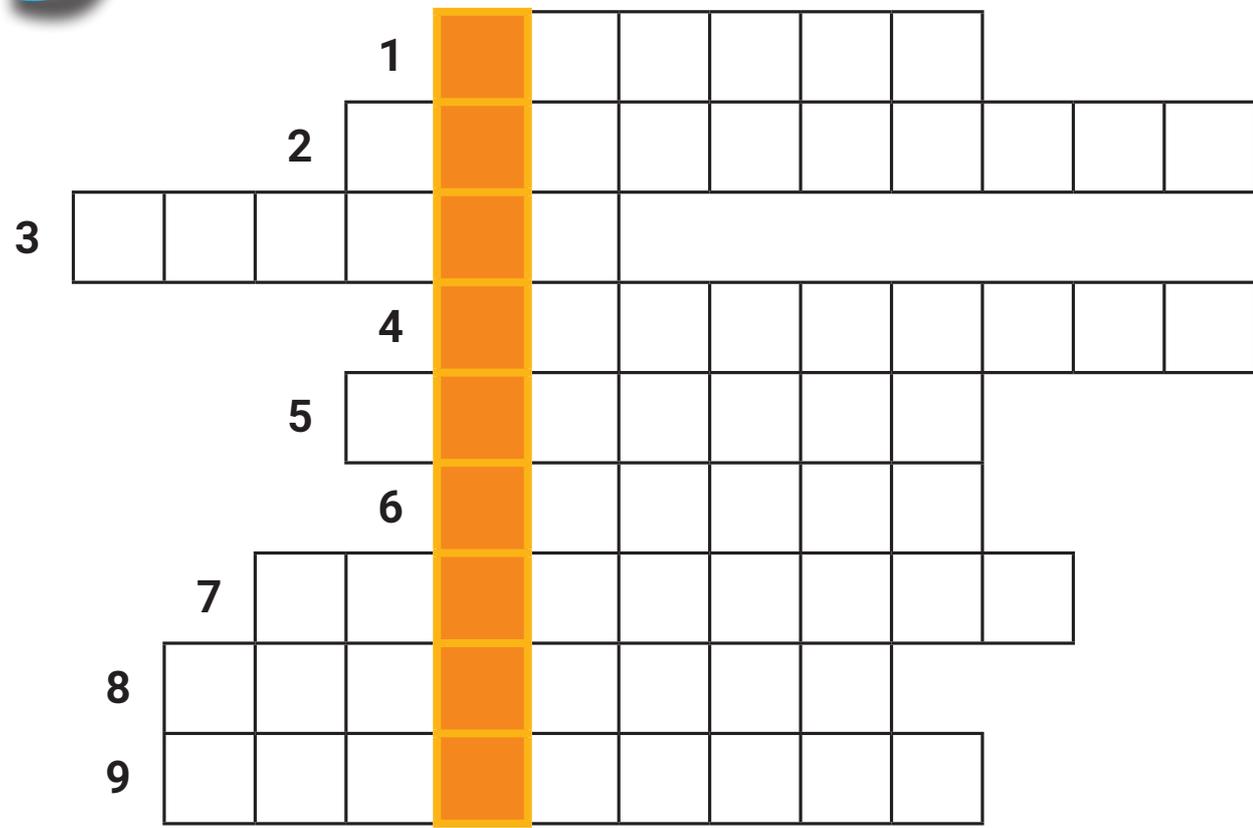
4

**COMPLETE THE SENTENCES
WITH THE COMPARATIVE
FORMS OF THE ADJECTIVES:
SMALL / BIG.**

- 1 The mass number is always the atomic number.
- 2 The atomic number of silver is the atomic number of sulfur.
- 3 The mass number of nitrogen is the mass number of hydrogen.
- 4 The number of protons in an oxygen atom is in a gold atom.
- 5 The number of electrons in a carbon atom is in an iron atom.
- 6 The number of neutrons in a silver atom is in a zinc atom.

TASK
5

COMPLETE THE CROSSWORD.
WHAT IS THE PASSWORD?



1. I am in the fourteenth group and the second period.
2. I wait in third period and the fifteenth group.
3. You will find me in the fourth period and the eleventh group.
4. I am in the third period and the second group.
5. You will find me in the first group and the second period.
6. I wait in the sixteenth group and the third period.
7. I am in the fourth period and the first group.
8. I wait in the first period and the first group.
9. You will find me in the second period and the second group.

- 1 The students work in pairs.
- 2 Each student is to choose one element on the periodic table. They do not tell its name to their partners.
- 3 They describe them to their partner using information given on the periodic table for example:
This element is in the first group and third period.
Its mass number is...
Its atomic number is...
It's a metal/nonmetal.
It has 11 protons/electrons.
- 4 The students are to use their periodic tables and guess the name of the elements chosen by their friends.