

Science

Grade 7

The periodic table

Meet elements, symbols and the groups of the periodic table.



I can use chemical symbols and describe how the periodic table is organised.

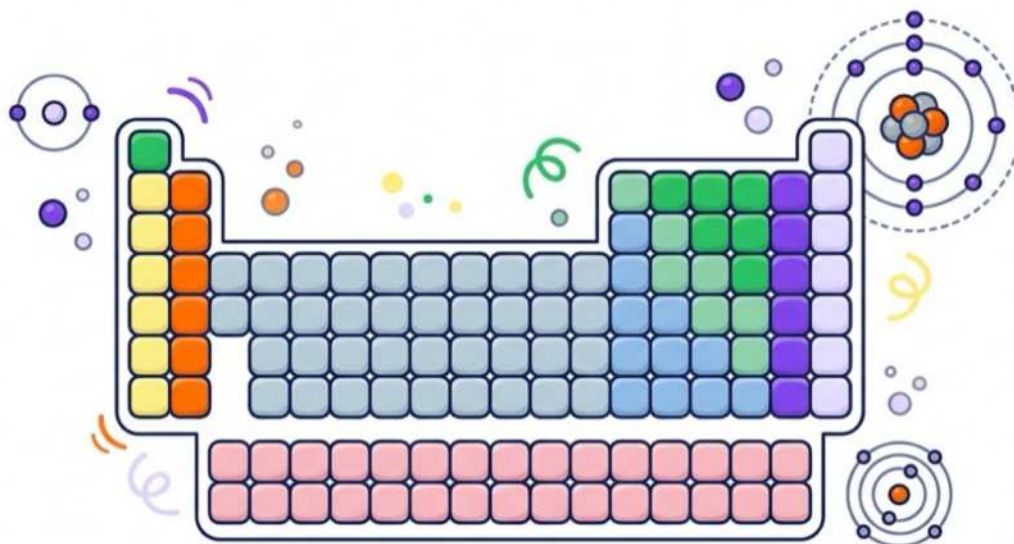


1



Complete the table

Fill in the empty boxes.



Element	Symbol	Metal or non-metal?
Oxygen		
Iron		
	Na	
Carbon		
	Au	

2 Pick the answer

Circle the right answer.

1. Elements in the same group have...

A similar properties

B the same mass

C the same colour

2. Which is a noble gas?

A chlorine

B helium

C copper

3. H₂O contains how many atoms?

A 2

B 1

C 3

3 Word hunt

Find the words in the grid.

F	M	E	T	A	L	A	S	O	P
J	O	V	I	N	F	P	W	I	N
O	V	N	J	H	H	J	V	R	E
X	S	E	W	L	W	D	Y	O	B
Y	L	U	F	I	F	A	N	N	G
G	N	T	T	P	R	O	T	O	N
E	G	R	J	T	M	Y	A	D	F
N	P	O	B	H	E	L	I	U	M
B	V	N	W	I	N	C	J	B	I
U	T	E	K	V	A	T	O	M	M

FIND THESE WORDS

- ☐ Atom
- ☐ Proton
- ☐ Neutron
- ☐ Metal
- ☐ Oxygen
- ☐ Helium
- ☐ Iron

4 True or false

Circle true or false.

1. The elements are arranged in order of atomic number.

True

False

2. Most elements are metals.

True

False

3. The rows of the periodic table are called groups.

True

False

4. Noble gases react easily with other elements.

True

False

5. The nucleus of an atom contains protons.

True

False

5 Symbols

Draw a line from each symbol to its element.

☐

K



● A. calcium

☐

Cu



● B. potassium

☐

Ag



● C. lead

☐

Pb



● D. copper

☐

Ca



● E. silver

6 Inside the atom

Use the word bank to complete each sentence.

WORD BANK

protons

electrons

neutrons

period

atomic number

1. The number of _____ in an atom is its atomic number.

2. The negative particles around the nucleus are _____.

3. Particles in the nucleus with no charge are called _____.

4. A horizontal row in the periodic table is called a _____.

5. Carbon has 6 protons, so its _____ is 6.

7

**Metal or non-metal?**

Write each element in the right box.

copper

sulfur

magnesium

nitrogen

aluminium

chlorine

zinc

neon

Metal**Non-metal**

8

**Count the atoms**

Fill in the empty boxes.

Formula	Number of elements	Total number of atoms
CO ₂		
NaCl		
CH ₄		
NH ₃		
C ₆ H ₁₂ O ₆		

9

**Groups and particles**

Circle the right answer.

1. Sodium and potassium are in group 1. They are called...

A alkali metals**B** noble gases**C** halogens

2. Chlorine is...

A a noble gas**B** a halogen**C** an alkali metal

3. What is the charge of a proton?

A negative**B** no charge**C** positive

4. Which of these is a compound?

A O_2

B H_2O

C Fe

How did it go?



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Answer key

The periodic table

Meet elements, symbols and the groups of the periodic table.



I can use chemical symbols and describe how the periodic table is organised.

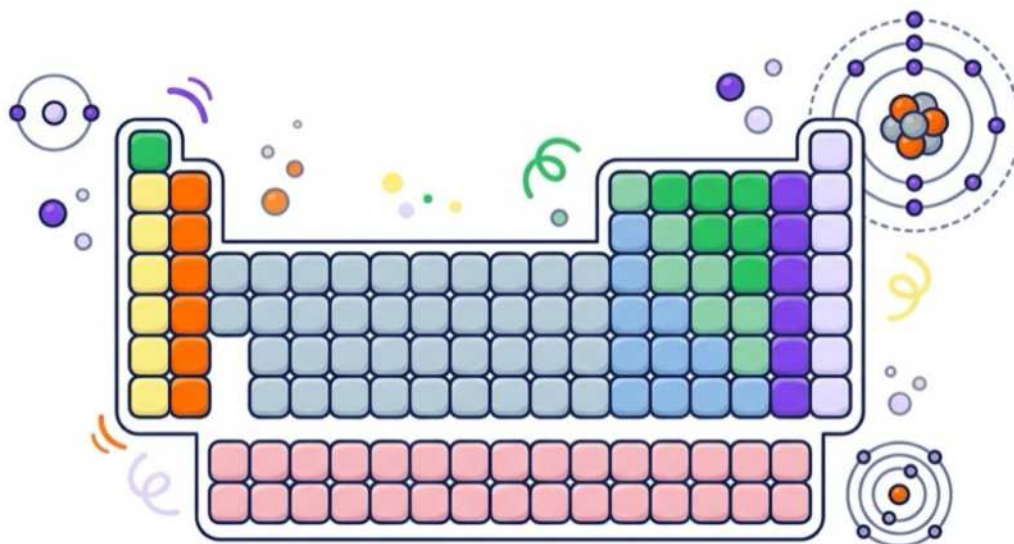


1



Complete the table

Fill in the empty boxes.



Element	Symbol	Metal or non-metal?
Oxygen	O	non-metal
Iron	Fe	metal
Sodium	Na	metal
Carbon	C	non-metal
Gold	Au	metal

2 Pick the answer

Circle the right answer.

1. Elements in the same group have...

A similar properties

B the same mass

C the same colour

2. Which is a noble gas?

A chlorine

B helium

C copper

3. H₂O contains how many atoms?

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Find the words in the grid.



FIND THESE WORDS

- ☐ Atom
- ☐ Proton
- ☐ Neutron
- ☐ Metal
- ☐ Oxygen
- ☐ Helium
- ☐ Iron

4 True or false

Circle true or false.

1. The elements are arranged in order of atomic number.

True

False

2. Most elements are metals.

True

False

3. The rows of the periodic table are called groups.

True

False

4. Noble gases react easily with other elements.

True

False

5. The nucleus of an atom contains protons.

True

False

5 Symbols

Draw a line from each symbol to its element.

B K •

• **A.** calcium

D Cu •

• **B.** potassium

E Ag •

• **C.** lead

C Pb •

• **D.** copper

A Ca •

• **E.** silver

6 Inside the atom

Use the word bank to complete each sentence.

WORD BANK

protons

electrons

neutrons

period

atomic number

1. The number of protons in an atom is its atomic number.

2. The negative particles around the nucleus are electrons.

3. Particles in the nucleus with no charge are called neutrons.

4. A horizontal row in the periodic table is called a period.

5. Carbon has 6 protons, so its atomic number is 6.

7 Metal or non-metal?

Write each element in the right box.

copper

sulfur

magnesium

nitrogen

aluminium

chlorine

zinc

neon

Metal

copper, magnesium, aluminium, zinc

Non-metal

sulfur, nitrogen, chlorine, neon

8 Count the atoms

Fill in the empty boxes.

Formula	Number of elements	Total number of atoms
CO ₂	2	3
NaCl	2	2
CH ₄	2	5
NH ₃	2	4
C ₆ H ₁₂ O ₆	3	24

9 Groups and particles

Circle the right answer.

1. Sodium and potassium are in group 1. They are called...

A alkali metals

B noble gases

C halogens

2. Chlorine is...

A a noble gas

B a halogen

C an alkali metal

3. What is the charge of a proton?

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