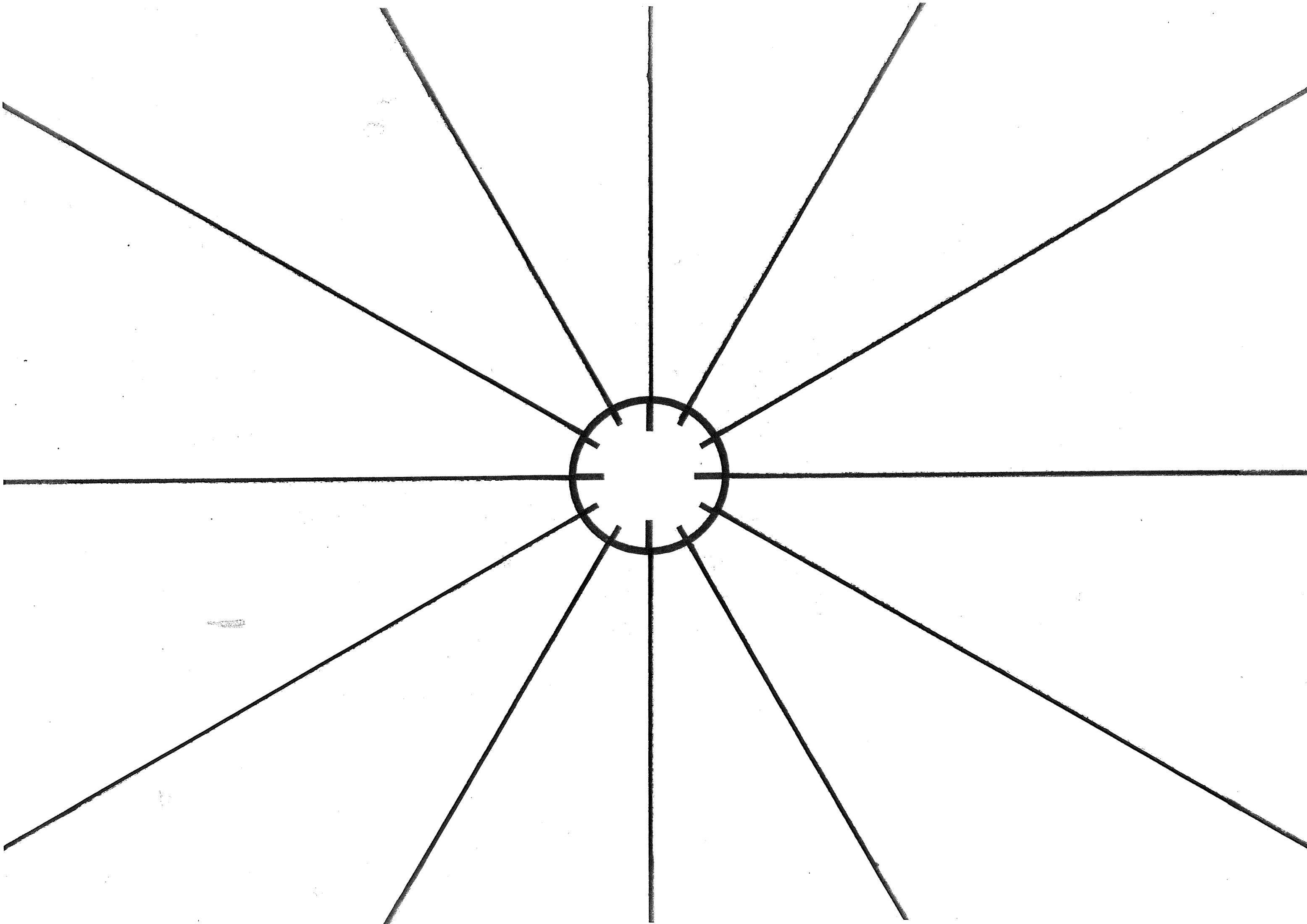




Two isotopes of potassium are shown.

$^{39}_{19}\text{K}$

$^{40}_{19}\text{K}$

Challenge

Explain what is meant by *isotopes*. You must include numbers of electrons, neutrons and protons in your explanation. (4)

Describe a method for making pure crystals of magnesium chloride from magnesium and dilute hydrochloric acid. In your method you should name the apparatus you will use. You do **not** need to mention safety. (4)

Final Review (Circle)

A - 1 2 3 4 5
B - 1 2 3 4 5
C - 1 2 3 4 5
D - 1 2 3 4 5
E - 1 2 3 4 5

Revision target:

Review of current understanding

A - 1 2 3 4 5
B - 1 2 3 4 5
C - 1 2 3 4 5
D - 1 2 3 4 5
E - 1 2 3 4 5

Circle the number

In your own words, define atoms, elements and compounds

List the 5 separation techniques

- 1.
- 2.
- 3.
- 4.
- 5.

What is a mixture?

ATOMIC STRUCTURE

4

Describe the atomic structure of lithium. Include in your answer:

- the number of each type of particle (4)
- where in the atom each particle is found.

^7_3Li

A neutral atom has no overall charge. Explain this in terms of its particles. (2)

An atom that loses an electron is called an _____ charge. (2)
and has an overall _____
Compare the position of the subatomic particles in the plum pudding model with the nuclear model. (4)

Draw and label the structure of an atom.
List 2 models of the atom.

Subatomic Particle	Relative Mass (amu)	Relative Charge
Proton		
	1	
		-1

complete the missing information in the table.

Two isotopes of potassium are shown.



Challenge

Explain what is meant by *isotopes*. You must include numbers of electrons, neutrons and protons in your explanation. (4)

Describe a method for making pure crystals of magnesium chloride from magnesium and dilute hydrochloric acid. In your method you should name the apparatus you will use. You do **not** need to mention safety. (4)

A lithium atom has an atomic number of 3 and a mass number of 7. Describe the atomic structure of lithium. Include in your answer:

- the number of each type of particle
- where in the atom each particle is found. (4)

In the early part of the 20th century, scientists used the 'plum pudding' model to explain the structure of the atom. Following work by Rutherford and Marsden, a new model of the atom, called the 'nuclear' model, was suggested. Describe the differences between the two models of the atom. (4)

Describe the differences in the atomic structures of a hydrogen atom and a helium atom. (3)

Final Review (Circle)

- A - 1 2 3 4 5
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Revision Target

Review of current understanding

- A - 1 2 3 4 5
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- E - 1 2 3 4 5

Circle the number

Draw diagrams to show the difference between elements and compounds.

Explain briefly:

- Filtration:
- Crystallisation:
- Chromatography:

Simple distillation:

Fractional distillation:

ATOMIC
STRUCTURE
5

Subatomic Particle	Relative Mass (amu)	Relative Charge

Complete the table.

Describe 2 models of the atom

Draw an atom

Explain why all atoms are neutral structures.

The mass number of gold is 197.

Describe the structure of a gold atom. (4)

Challenge

Final Review (Circle)

A - 1 2 3 4 5
B - 1 2 3 4 5
C - 1 2 3 4 5
D - 1 2 3 4 5
E - 1 2 3 4 5

Revision Target

Review of current understanding

A - 1 2 3 4 5
B - 1 2 3 4 5
C - 1 2 3 4 5
D - 1 2 3 4 5
E - 1 2 3 4 5

Circle the number

Draw and label diagrams to show the difference between elements and compounds.

Explain briefly the 5 separation techniques:

Draw and label a model of the atom including all subatomic particles, charges and masses.

Explain why all elements are neutrally charged.
Compare 2 models of the atom.

Describe the differences in the atomic structures of a hydrogen atom and a helium atom. (3)

A lithium atom has an atomic number of 3 and a mass number of 7. Describe the atomic structure of lithium. (4)

In the early part of the 20th century, scientists used the 'plum pudding' model to explain the structure of the atom. Following work by Rutherford and Marsden, a new model of the atom, called the 'nuclear' model, was suggested. Describe the differences between the two models of the atom. (4)

ATOMIC
STRUCTURE

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