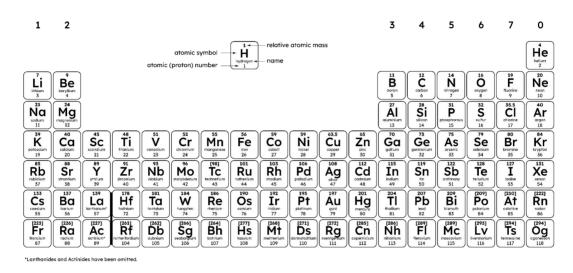
Task 1: What is Group 1?

a) Why are elements in Group 1 known as the alkali metals.?

b) **Colour** the correct column to show the location of the alkali metals in the periodic table.



Task 2: Physical properties and trends

a) **Complete** the sentence using one of the words below.

The boiling points of the alkali metals are ______ than the boiling points of other metals.

higher lower the same as

b) How do the melting points of the alkali metals compare to other metals?

c) **Describe** the trend in melting points as you move down the Group 1 metals.

Task 3: Chemical properties and trendsa)Complete the sentences.

| i) | The Group 1 metals are called the metals. | | |
|-----------|--|--|--|
| ii) | They have densities and melting points. | | |
| iii) | Lithium is the reactive in the group. | | |
| iv) | They react with water to give off and make a | | |
| solution. | | | |

b) **Describe** the trend in reactivity of the alkali metals as you go down the group.

| c) Complete the word equations. | |
|--|---|
| sodium + oxygen | |
| potassium + water | + |

 (\mathbf{b})

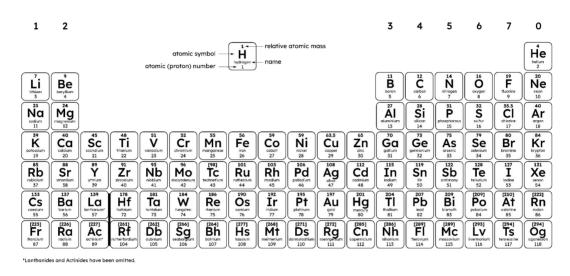
Group 1

Task 1: What is Group 1?

a) Why are elements in Group 1 known as the alkali metals.?

The Group I metals are called the alkali metals because they react with water to form alkali compounds.

b) **Colour** the correct column to show the location of the alkali metals in the periodic table.



Task 2: Physical properties and trends

a) **Complete** the sentence using one of the words below.

The boiling points of the alkali metals are <u>*lower*</u> than the boiling points of other metals.

higher lower the same as

b) How do the melting points of the alkali metals compare to other metals?

The alkali metals have much lower melting points than other metals.

c) **Describe** the trend in melting points as you move down the Group 1 metals.

As you go down Group I, the melting point decreases.

Answers



Task 3: Chemical properties and trends

- a) **Complete** the sentences.
- i) The Group 1 metals are called the <u>alkali</u> metals.
- ii) They have <u>low</u> densities and melting points.
- iii) Lithium is the <u>least</u> reactive in the group.
- iv) They react with water to give off <u>hydrogen</u> and make an <u>alkali</u> solution.

b) **Describe** the trend in reactivity of the alkali metals as you go down the group.

As you go down the Group I metals from lithium towards caesium, they become more reactive with both water and oxygen.

| c) Complete the word equations. | | |
|--|-------------------------------|--|
| sodium + oxygen | sodium oxide | |
| potassium + water | potassium hydroxide +hydrogen | |