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A student was investigating the reaction of lithium and water.

She added a few drops of universal indicator to water in a trough and added a piece of lithium.

The word equation for the reaction is:



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 .

1

The lithium floated on the water.

State **two** other observations that the student would **see** during the reaction.

[2 marks]

1

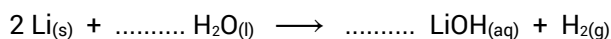
2

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 .

2

Balance the symbol equation for the reaction of lithium and water.



[2 marks]

0	1
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 .

3

All Group 1 metals have similar reactions with water.

State why, in terms of electronic structure.

[1 mark]

.....
.....

0	1
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 .

4

Potassium is more reactive than sodium.

State 2 differences between the reaction of potassium with water compared with the reaction of lithium with water from Question 1?

[2 marks]

1

2

0	1
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 .

5

Explain why potassium is more reactive, in terms of electronic structure.

[3 marks]

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(Total 10 marks)

End