

**All questions are for both separate science and combined science students****Q1.**

This question is about water.

- (a) Hydrogen gas reacts with oxygen gas to produce water.

Water is decomposed into hydrogen gas and oxygen gas using electricity.

Which **two** words describe the reaction between hydrogen gas and oxygen gas?

Tick (✓) **two** boxes.

Alloying

☐

Combustion

☐

Corrosion

☐

Endothermic

☐

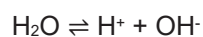
Reversible

☐

(2)

- (b) Water molecules break down into hydrogen ions and hydroxide ions.

The equation for the reaction is:



Which sentence describes this reaction at equilibrium?

Tick (✓) **one** box.

Water molecules break down at a higher rate than they reform.

☐

Water molecules break down and reform at the same rate.

☐

Water molecules break down at a lower rate than they reform.

☐

(1)

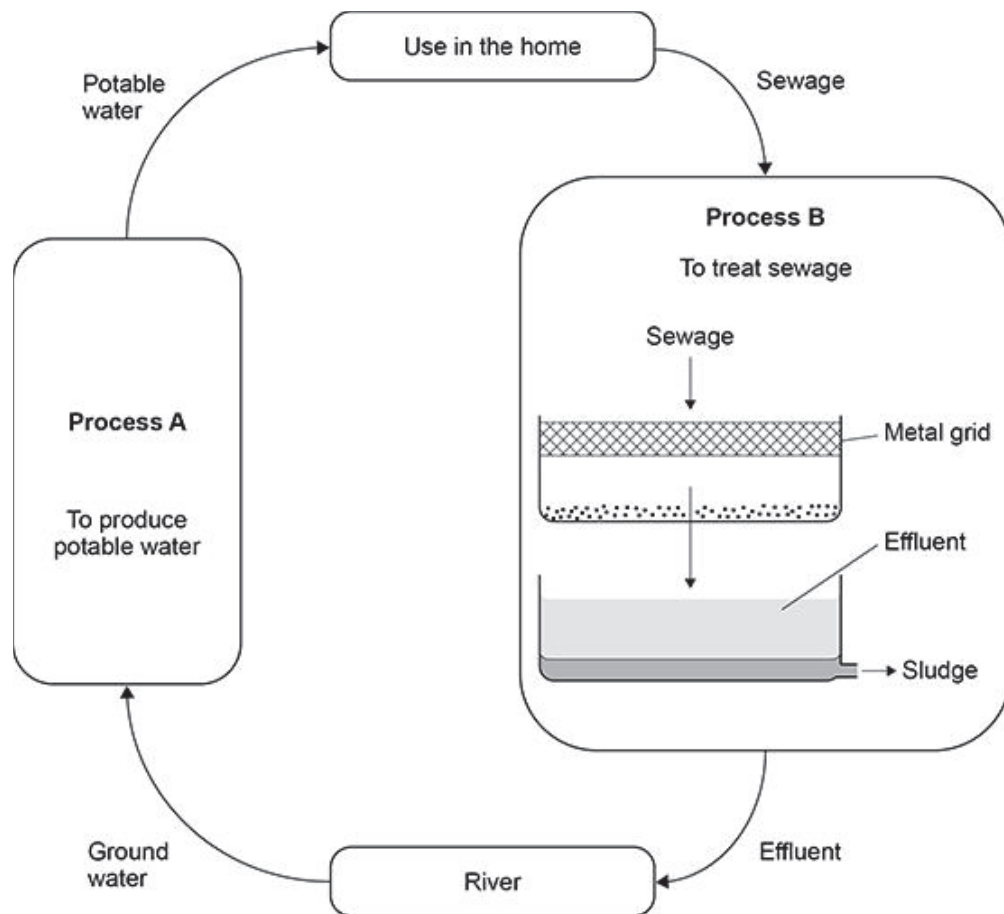
- (c) Water collected from rivers is used in the home for drinking and flushing toilets.

Water used in the home must be potable.

Potable water is safe to drink.

Waste water produced after use in the home is called sewage.

The figure below shows how water is collected from rivers and returned to rivers after use.



Explain what happens to water in **Process A** and in **Process B** in above figure.

Do **not** refer to use of water in the home.

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(6)  
(Total 9 marks)