

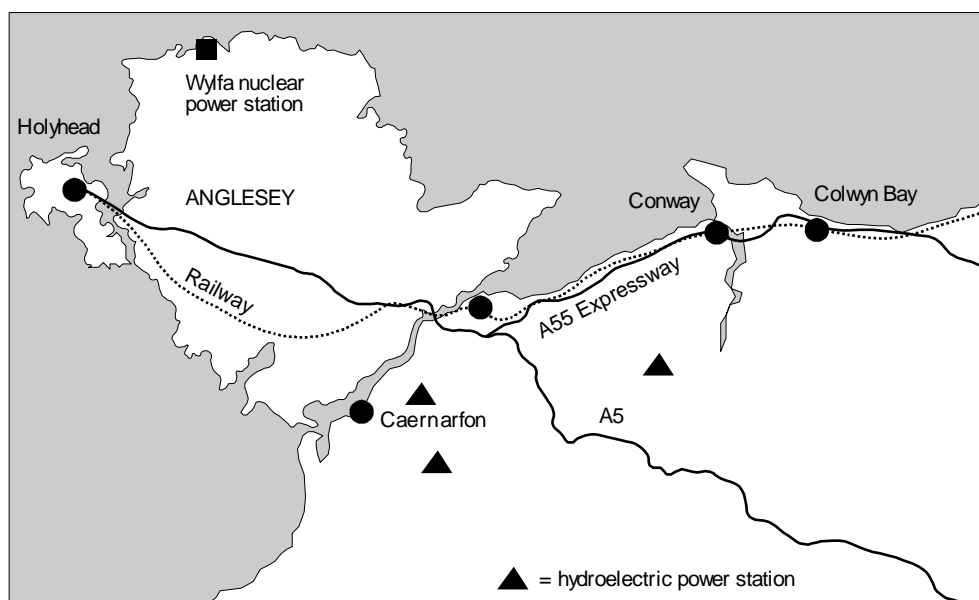
Aluminium Extraction: Questions

Version A

1. (a) There are few factories producing aluminium in the UK.
Suggest one reason why factories producing aluminium are built in other parts of the world rather than in the UK.

_____ [1]

- (b) On the sketch map of North Wales the aluminium factory at Holyhead in Anglesey is shown.



The factory uses alumina from Jamaica, The Republic of Ireland and Spain.

Suggest two reasons why Anglesey is a good place to site such a factory.

(i) _____

(ii) _____ [2]

- (c) (i) Calculate the quantity of electricity, in faradays, required to produce 1 tonne of aluminium. (Relative atomic mass: Al = 27)

_____ faradays [3]

(ii) At Anglesey, there are 308 cells operating at a current of 157,000 A.

What mass of aluminium can be produced in the factory in 24 hours? (1 faraday = 96,000 C)

_____ tonnes [3]

Aluminium extraction: Questions

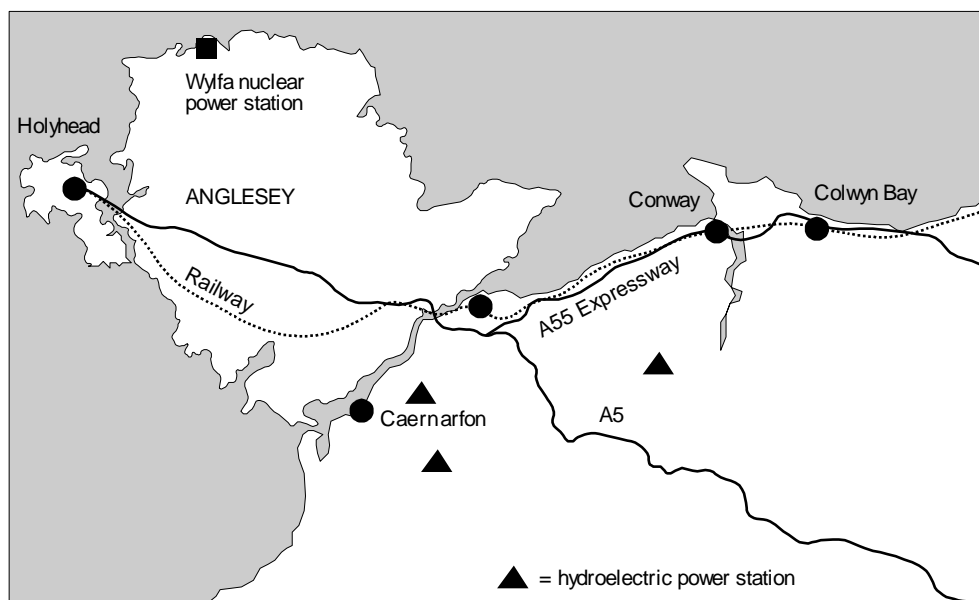
Version B

1. (a) There are few factories producing aluminium in the UK.

Suggest one reason why factories producing aluminium are built in other parts of the world rather than in the UK.

_____ [1]

- (b) On the sketch map of North Wales the aluminium factory at Holyhead in Anglesey is shown.



The factory uses alumina from Jamaica, The Republic of Ireland and Spain.

Suggest two reasons why Anglesey is a good place to site such a factory.

(i) _____

(ii) _____ [2]

- (c) (i) How many faradays of electricity are needed to discharge 27 g of aluminium (Relative atomic mass: Al = 27)?

_____ [1]

How many faradays of electricity are needed to discharge 1 tonne (1,000,000 g) of aluminium? _____ faradays [2]

- (ii) At Anglesey, there are 308 cells operating at a current of 157,000 A.

How many coulombs of electricity are used in 24 hours?

_____ [1]

How many faradays of electricity are used in 24 hours?

_____ [1]

How many tonnes of aluminium are produced in 24 hours?

_____ tonnes [1]