

Map Quest

Solution

The helicopter can only carry a maximum of 250 litres.

It burns 2.5 litres during take-off and 1.5 litres during landing: $2.5 + 1.5 = 4$

$$250 - 4 = 246$$

Therefore, there are 246 litres of fuel available for travelling.

The helicopter will burn 1.5 litres for every 1 km it travels forward.

$$246 \div 1.5 = 164$$

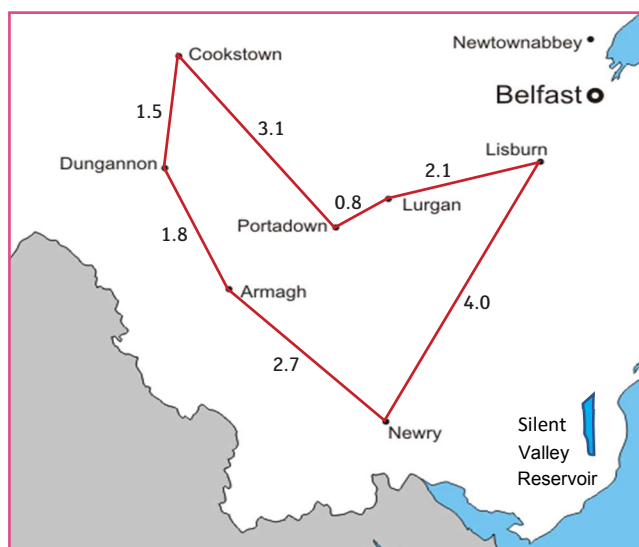
The maximum distance the helicopter can travel with 250 litres of fuel is 164 km.

Pupils need to identify the shortest route for the helicopter to travel, ensuring that it flies over all the locations safely.

The scale given is 1 cm = 10 km.

Pupils can convert 164 km into cm to get 16.4 cm.

The total distance of the route on the map can therefore not exceed 16.4 cm.



The pilot should use the route shown above.

Route

This route is a total of **16 cm**

$$1.5 + 3.1 + 0.8 + 2.1 + 4.0 + 2.7 + 1.8 = 16$$

Using the scale: $16 \times 10 = 160$

Total distance travelled forward is **160 km**

