



Water in the UK

National Water Grid

At present, the only water grid that exists in the UK is the link to Kielder Water, in Northumberland. It is the UK's largest artificial lake, and its dam was built along the North Tyne River. As well as building the dam in the 1970s, the reservoir is linked to the cities of North-East England, via the Kielder Transfer Scheme as follows:

- Water from Kielder Water is discharged into the North Tyne River, to compensate for water removal by people in towns and cities further downstream between Hexham and Newcastle.
- Water is also transferred south-east to the River Wear and River Tees to compensate for water removal by people who live in cities such as Sunderland and Middlesbrough.

Find all the places mentioned and circle them in the image below.





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1. How easy would it be to create a national grid? Form groups of three. The aim of each group is to judge how feasible, or possible, a national water grid system could be. You know that private water companies will probably never provide the investment sums needed, so you are going to make a recommendation to the government about whether or not they should contribute to the cost.
2. Create one of the following:
 - A PowerPoint of up to ten slides, including pictures and maps, which you can use to present your findings to the rest of the class.
 - A wall display which can be used to present your ideas to the group – allowing the class to compare the schemes.
3. In your group, complete the following tasks:

Person 1	<p>Produce a map to show the need for water, displaying the UK's water surplus areas and the deficit areas. The map should label the areas shown below:</p> <ul style="list-style-type: none"> • <u>Water surplus areas</u>: Cairngorms, the Southern Uplands of Scotland, the Lake District, the Pennines, Snowdonia, and the Cambrian Mountains. • <u>Water deficit areas</u>: London, Birmingham and West Midlands, Greater Manchester, Merseyside (Liverpool), West Yorkshire (e.g. Leeds and Bradford), South Yorkshire (Sheffield), and East Midlands (e.g. Nottingham, Leicester and Derby).
Person 2	<p>Research the Kielder Water project and include the following information:</p> <ul style="list-style-type: none"> • how and when it was built • how water is transferred between different rivers and; • whether this is something that other river systems could do • the locations of major reservoirs that supply water to any two or three British cities
Person 3	<p>Research online to see whether any other major schemes have been developed elsewhere in the world, clue: they have! Find information to show how big these schemes were and how much they cost. Assess whether or not the distances involved are comparable with the UK?</p>
Group	<p>Work together to create the presentation and the accompanying script.</p>

