

Background

The United Utilities interactive 360 tool is a free and comprehensive digital platform to integrate innovative technology into curriculum maps. It is designed by teachers for teachers, offering students a brand new virtual learning experience to inspire a diverse future workforce within the water industry.

This interactive 360 resource can be used in a multitude of ways. The student activities in this section of the site are only a starting point. As the teacher becomes more familiar with the resource, other opportunities within the curriculum may also be identified. Individual videos and locations can be used for specific lessons or teaching points.

United Utilities would welcome feedback from teachers on other ways to use this resource, which can then be added to the platform. Feedback from teachers who took part in the initial pilot clearly places the resource at the heart of an exciting and innovative geography curriculum.

Feedback from teachers

<p><i>“This makes careers more strategic. Every teacher is a career’s teacher at the end of the day and this positions careers into the curriculum. This is an amazing way of making careers relevant in the Geography Curriculum.”</i></p>	<p><i>“The exam specification is very much focused upon assessing the familiar to the unfamiliar, the kids need to have access to a wider range of things. They need to be able to explore the unfamiliar and describe and evaluate issues around the unfamiliar. This is a skill that our kids really struggle with. Things like this will expose them to what they need to see.”</i></p>	<p><i>“We’ve addressed similar issues over the years with videos over the years but nothing like this. Great for homework, intervention work, special needs students and anyone who struggles with Geography as it can be text heavy.”</i></p>
<p><i>“This is great. Really great. The kids that we have - they haven’t got any real sense of what goes on outside of the estate or the area in which they live. This is alien to them. If I said I was taking them to a water treatment site they probably wouldn’t be that interested but if I showed them it through this tour - particularly the water transfer schemes unit for GCSE - they can see it like this. This is really good. Excellent.”</i></p>	<p><i>“We are going to be really struggling with this for a while. We work with the Field Studies Council and they are really going to struggle. At the moment Geography field work has just disappeared and will be for the next 12 months. It is great for our students to get outdoors but we are going to have some serious issues with how they experience fieldwork.”</i></p>	<p><i>“A waste water treatment plant – let’s face it, it isn’t the Jurassic coast in Dorset or Iceland but anything like this is enriching. The red tape you would have to go through to get students on a site like this would be so prohibitive you just wouldn’t consider it in a normal situation let alone in a pandemic world. This is going to be the new normal. I like the idea of a journey through an area where you learn as you go along. It would be great to add more education prompts and questions too.”</i></p>

Key Stage 3 Activities

As most schools decide their own thematic approach to teaching the KS3 Geography national curriculum, the activities in this section are based around the outcomes of the KS3 Programme of Study. The teacher is best placed to match them to the topics and lessons they have already planned.

The relevant parts of the KS3 Programme of Study for Geography that the activities, and the whole experience relate to, are highlighted below.

Working with teachers in the pilot study it became obvious that certain topics will clearly utilise this resource as an invaluable teaching tool. For example, Water, Coasts, Rivers, Renewable Energy and Sustainability, Weather- Flooding, are common topics found across KS3 geography planning. All these units will be able to use this resource to varying degrees.

The teacher notes within the activities suggest different ways to use the tool, for example, as part of a series of lessons or as a one-off activity either in class or as a homework assignment. The engaging and exploratory interface, for example, makes it ideal as a resource to be used at home as part of a homework activity following an exposition by the teacher in class.

The 10 starter activities match the following parts of the KS3 Programme of Study:

Pupils can:

- develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes
- understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time

Pupils are competent in the geographical skills needed to:

- collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes
- interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS)
- communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length

Human and physical geography

- understand, through the use of detailed place-based exemplars at a variety of scales, the key processes in:
 - physical geography relating to: geological timescales and plate tectonics; rocks, weathering and soils; weather and climate, including the change in climate from the Ice Age to the present; and glaciation, hydrology and coasts
 - human geography relating to: population and urbanisation; international development; economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources

- understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems

Key Stage 4 GCSE Activities

hi-impact and United Utilities identified where the interactive tool would support units of work within a number of GCSE specifications. A range of more open-ended activities were developed to support these Units. Again, these can be deployed in a range of scenarios by the teacher depending on their situation. For example, the activities can be used at the end of Unit or section to help students move from the familiar to the unfamiliar. Teachers may already use a different location as a case study within a unit of work. The United Utilities resource can be used to help students practice answering questions in 'familiar' and 'unfamiliar' fieldwork contexts.

The activities clearly match the outcomes of the Unit of work.

Again, this resource can be utilised both in class or as a homework assignment, can easily be added to online classrooms and, being browser based, is accessible on virtually every device.

Activities have been developed for the following KS4 GCSE units:

- GCSE AQA 3.2 Challenges in the human environment - Urban Issues
- GCSE AQA 3.2.3.1 The Challenge of Resource Management - Resource Management
- GCSE AQA 3.2.3.3 The Challenge of Resource Management - Water
- GCSE EDUQAS Theme 3 Environmental Challenges
- GCSE OCR A 1.3 UK Environmental Challenges
- GCSE OCR B Topic 8 Resource Reliance
- GCSE EDEXCEL Topic 6 Resource Management