

Investigation Aim: Evaluate the links between drainage basin characteristics, the hydrological cycle and flooding

Information for teachers

This live lesson broadcast will help students to explore the link between drainage basin characteristics, hydrology and flooding. Students will be encouraged to draw upon and apply their GCSE rivers knowledge to A level hydrology content, building their geographical knowledge and skills. FSC's expert field tutors will answer questions about this hydrology and flooding investigation. Submit your questions in advance to increase the chance of being answered, or you can submit live.

Learning Objectives

1. Identify inputs, outputs, stores and flows of water within a drainage basin
2. Describe and explain how drainage basin characteristics will affect flood risk
3. Use secondary data sets to interrogate the study location
4. Develop critical geographical enquiry skills to investigate hydrology and flooding
5. Justify appropriate qualitative and quantitative methods of data collection
6. Assess how soil type affects infiltration rate
7. Evaluate the investigation process and suggest further enquiries that could be investigated

Specification Links

AQA 3.1.1.1 Water and carbon cycles as natural systems, 3.1.1.2 The water cycle, 3.1.1.3 The carbon cycle, 3.1.1.4 Water, carbon, climate and life on earth, 3.1.1.5 Quantitative and qualitative skills, 3.1.1.6 Case study of a river catchment(s) at a local scale

EDEXCEL Topic 5. The Water Cycles and Water Insecurity

OCR 1.2.1 How important are water and carbon to life on Earth?, 1.2.3 How much change occurs over time in the water and carbon cycles?, 1.2.4 To what extent are the water and carbon cycles linked?, 1.2.5 Topic-specific skills, 2e Geographical and fieldwork skills.

WJEC/EDUQAS 2.1.1 The concepts of system and mass balance, 2.1.2 Catchment Hydrology, 2.1.3 Temporal variation in river discharge, 2.1.4 Precipitation and excess runoff within the water cycle, Appendix A: Geographical skills

Scotland SQA Advanced Highers Gathering and processing techniques

Northern Ireland CCEA Fieldwork Skills and Techniques in Geography

Additionally, students will be able to draw on critical evaluation skills, data interrogation skills etc. gained in this session in order to facilitate their transition from the demands of the GCSE examined fieldwork element to the more independent nature of the A Level Independent Investigation.

For all England and Wales Awarding Organisations, this content is designed to enable students to draw on critical evaluation skills, data interrogation skills etc. gained in this session in order to facilitate their transition from the demands of the GCSE examined fieldwork element to the more independent nature of the A Level Independent Investigation.

Pre-lesson

Please visit <https://encounteredu.com/cpd> for guidance on using these Live Lessons and Teacher Resources during school closures.

Please advise your students to work through the pre-course handout as preparation for the live lesson. This element, referring to the ArcGIS StoryMap and secondary data sources, will lead them through the introduction and planning stages of the enquiry.

During the live lesson

Students should have their pre-live lesson handout ready with them, completed with the pre-live lesson elements. These will be referred to in order to set the scene for the fieldwork element of the enquiry and the #FieldworkLive data sheets will be used to record their observations and evaluations throughout the interactive part of the session.

Post-lesson webinar

Details on this post-course teacher webinar will be available to enable you facilitate your students' understanding of the final stages of the investigation.