

Explore the Eden: Geography of the Eden Catchment

A practical lesson using ArcGIS

Summary

Explore the geography of the Eden Catchment using a web-map that contains lots of information and data.

Firstly, watch this video that shows you the mapping tools available to explore the map:

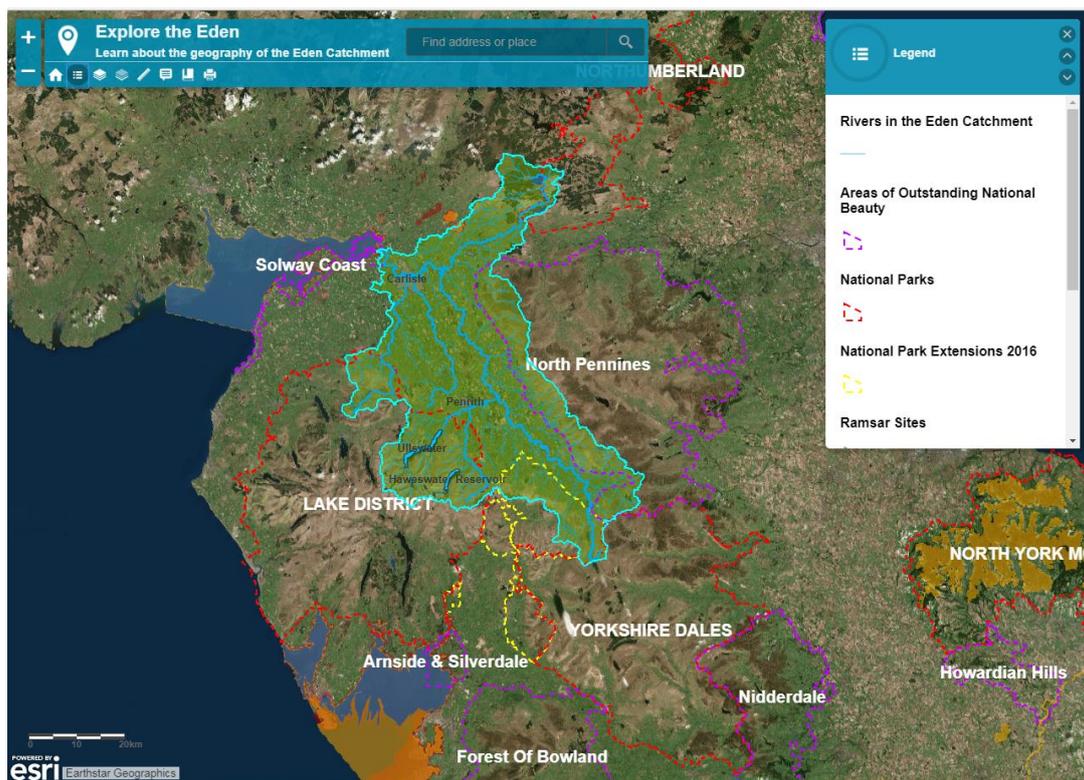
<https://vimeo.com/154836182>

Now you've watched the video, you're ready to start exploring!

Click on the link to open the web-map <http://arcg.is/1X4WUW2>

Try finding your way around the map by looking for some of the information/layers of data mentioned in the video. (*Hint: Refer back to the video for help, if you need it*).

Then, answer the questions on the next page.



Explore the Eden web map showing layers of data

Questions

Map-based GIS questions

Q1. What is the area of the River Eden Catchment? (Hint: click on the catchment and more information will pop up.)

Q2. What is the straight-line distance between Penrith and Carlisle in both miles and kilometres? (Hint: use the measure tool to measure the distance from the centre of one place to the centre of the other)

Q3. How long is the River Eden in kilometres? Describe two methods by which you could find this information out from the web-map.

Q4. Using the pre-set bookmarks, zoom to Ullswater. What is the area of the lake? (Hint: work it out using the measure 'area' function.)

Q5. Find the village of Armathwaite (Hint: If you don't know where it is, use the search function to search for Armathwaite, Cumbria). Which is the nearest village to Armathwaite by straight-line distance, and how far away it is?

Q6. How many National Parks (including National Park Extensions 2016) and Areas of Outstanding Natural Beauty (AONB) are there within the Eden Catchment? Can you name them?

Q7. Of the National Parks found within the Eden Catchment which was the most recent to be designated and when was it designated?

Q8. Name three different conservation and/or landscape designations found within the Solway Estuary.

Q9. What are the Ramsar Designated Wetlands found in the North-West of the Eden Catchment called?

Exercise:

- a) Print out a map of the whole Eden Catchment which shows only the catchment boundary, rivers and lakes.
- b) Change the base map to something other than the aerial imagery. You can choose which you think looks best.
- c) Add a title to your map (include your name in this) and add a legend to the map

River feature-based questions

Click on the blue stars to explore all of the different 'river terms' which are featured on the map and then answer the following questions:

Q1. What is a tributary?

Q2. Which is the longest tributary of the River Eden?

Q3. Name two major tributaries of the River Eden which have their confluence with the River Eden in the city of Carlisle.

Q4. The confluence of the River Eamont and River Lowther is found just downstream of which village?

Q5. Where is the source of the River Eden found?

Q6. The River Eden flows into which estuary?

Q7. Can you describe what an estuary is?

Q8. Can you name one other major estuary in the UK and the main river which flows into it?
