

# 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:

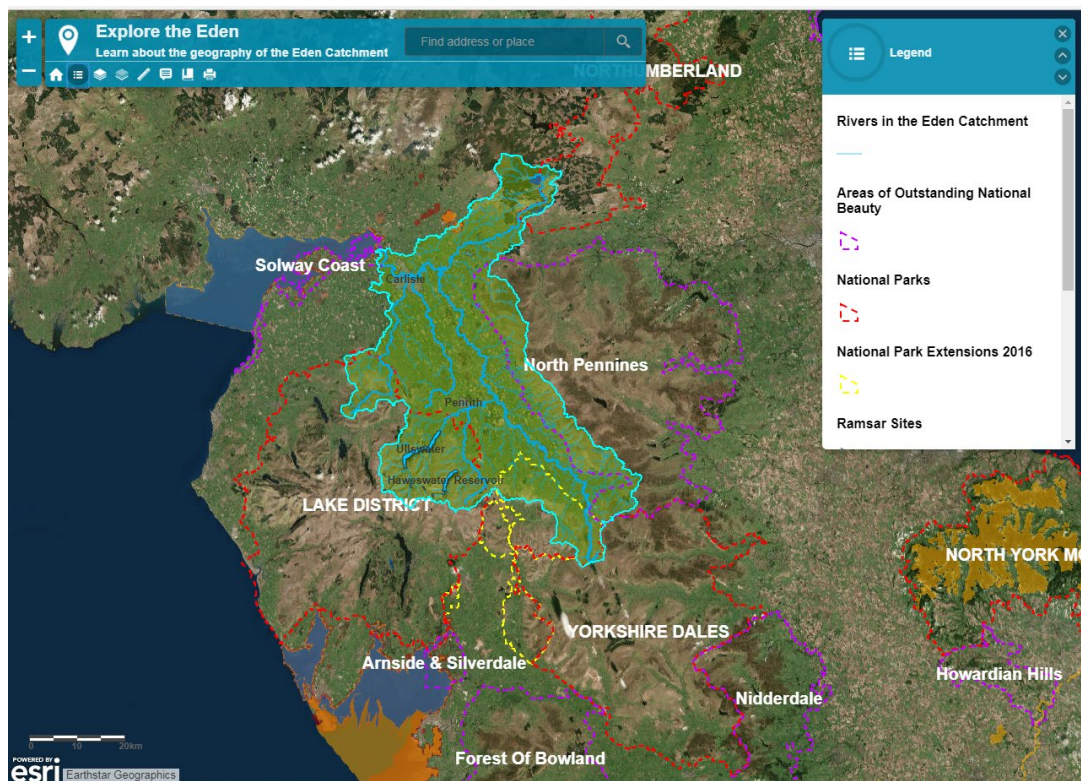
<https://vimeo.com/233630961>

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.)

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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)

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

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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.)

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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?

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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?

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

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

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

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## 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?

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

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

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

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

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Q6. The River Eden flows into which estuary?

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Q7. Can you describe what an estuary is?

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

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