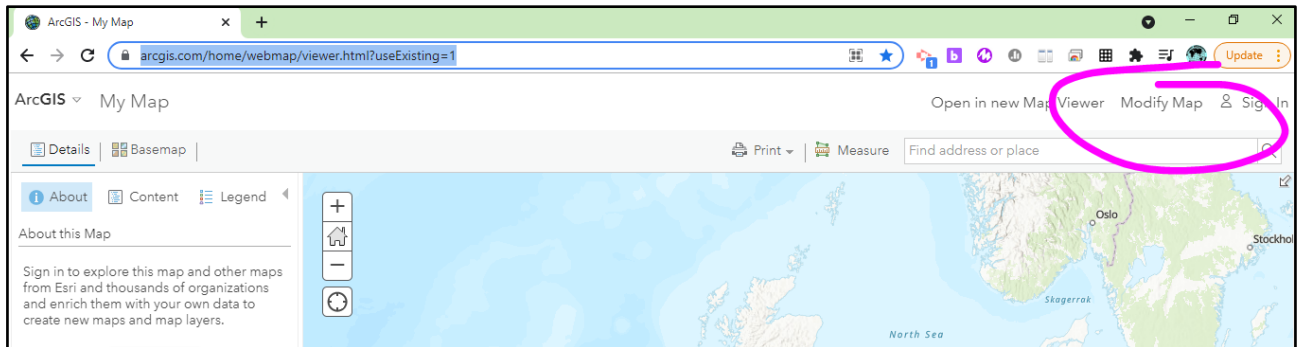
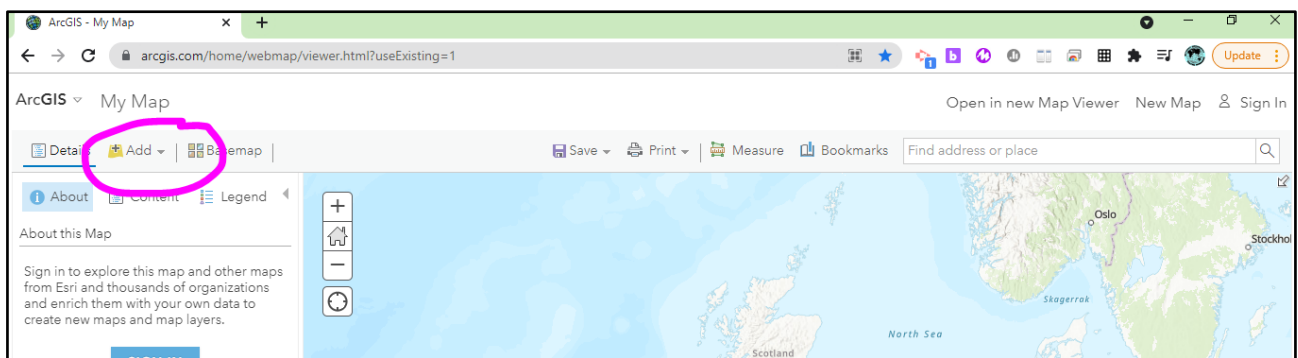


To what extent is development in the Middle East linked to oil production?

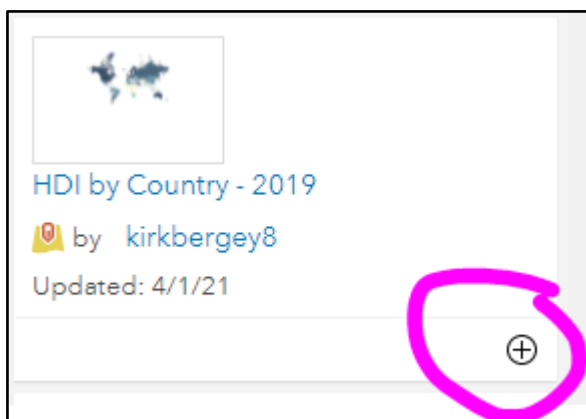
1. Go to the ARCGIS website [here](https://arcgis.com). Click Modify Map (top right)



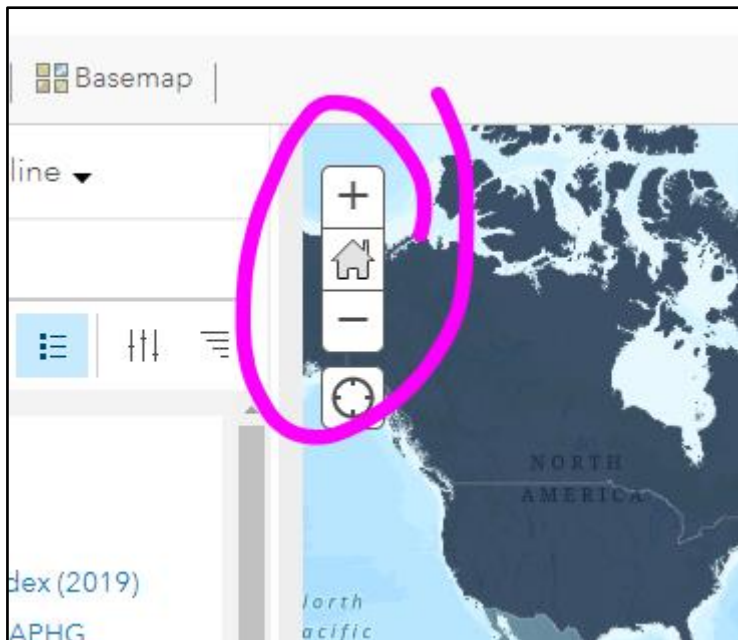
2. Now click on the left hand side - Add, and click the down arrow.



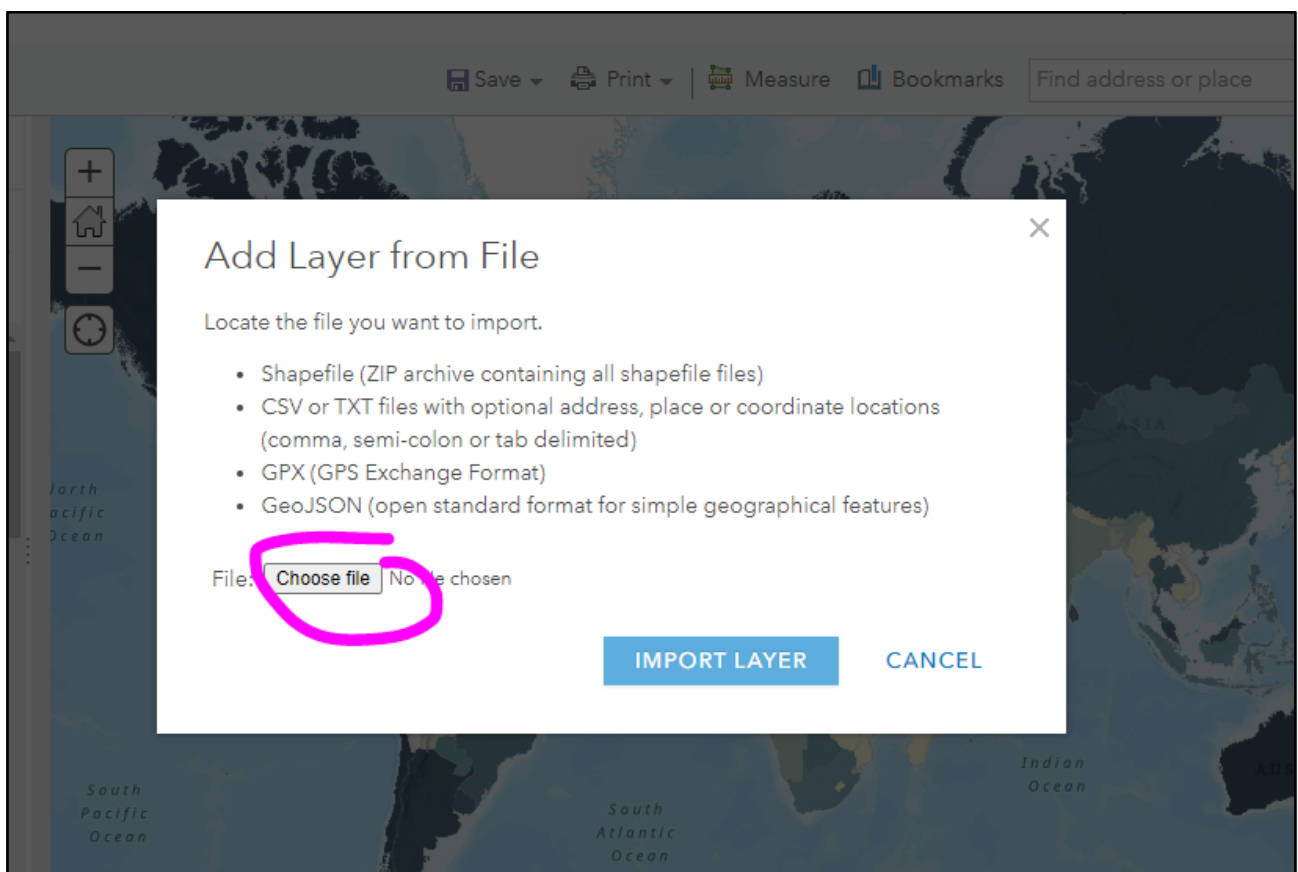
3. Choose Search for layers. Type Human Development Index 2019 in the search box. Choose the second one down - HDI by Country - 2019. Click on the plus button at the bottom right of that section.



4. Use these buttons to zoom. Zoom out so you can see all countries.



5. Go back to the Google classroom. Open the Oil Production by Country. Now go to file, download, choose CSV file.
6. Now click on the Add down arrow again. This time choose Add Layer from File. On the pop, choose from file. Choose downloads, and the csv file you just downloaded. Click import layer.



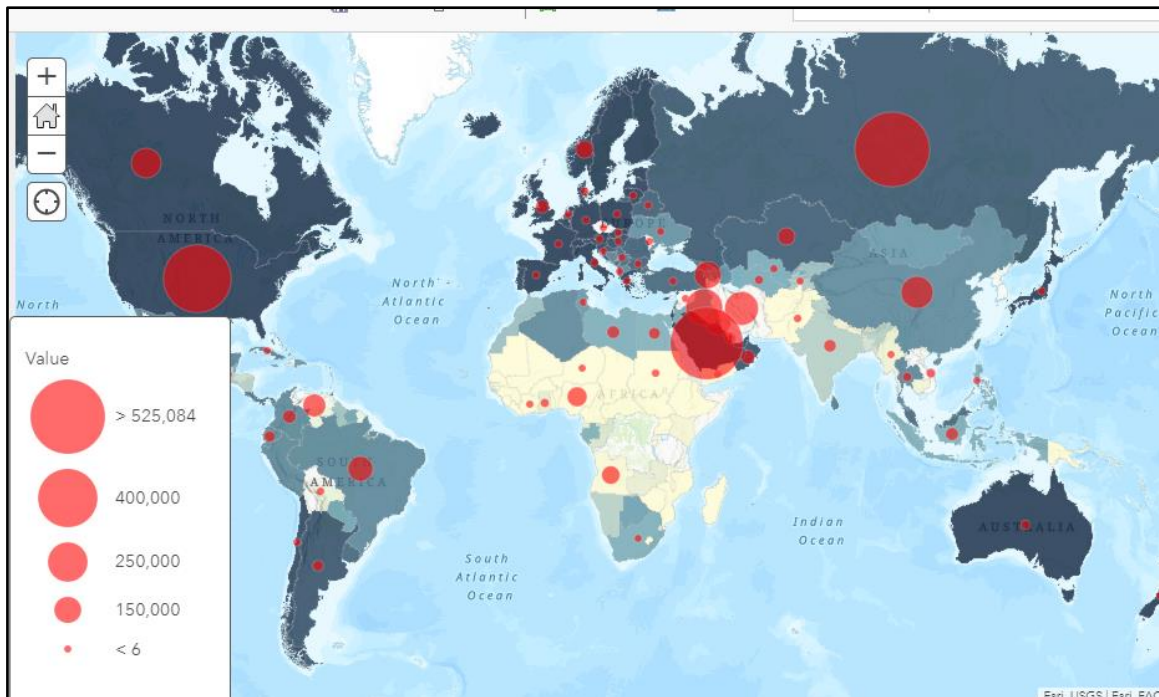
- When the next pop up window appears, click on Addresses or places, then on the row Location, choose from the drop down (where it says Not used) Country, now click import layer.

The screenshot shows the 'Add CSV Layer' dialog box. The 'Locate features by:' section has three radio buttons: 'Coordinates', 'Addresses or Places' (which is selected and circled in pink), and 'None, add as table'. Below this, a table titled 'Review the location fields. Click on a cell to change it.' contains the following data:

Field Name	Location Fields
LOCATION	Not used (circled in pink)
Value	Not used

At the bottom of the dialog, there are two buttons: 'ADD LAYER' (circled in pink) and 'CANCEL'.

- You can click on Options on the left to change the colour of your proportional circles. You might want to change the transparency to 30% to make it easier to read. You could change the minimum and maximum size to 6 and 60 to make the map easier to read as well.
- It should look something like this



10. Now add a doc to your classroom and add the title - **To what extent is development in the Middle East linked to oil production?**

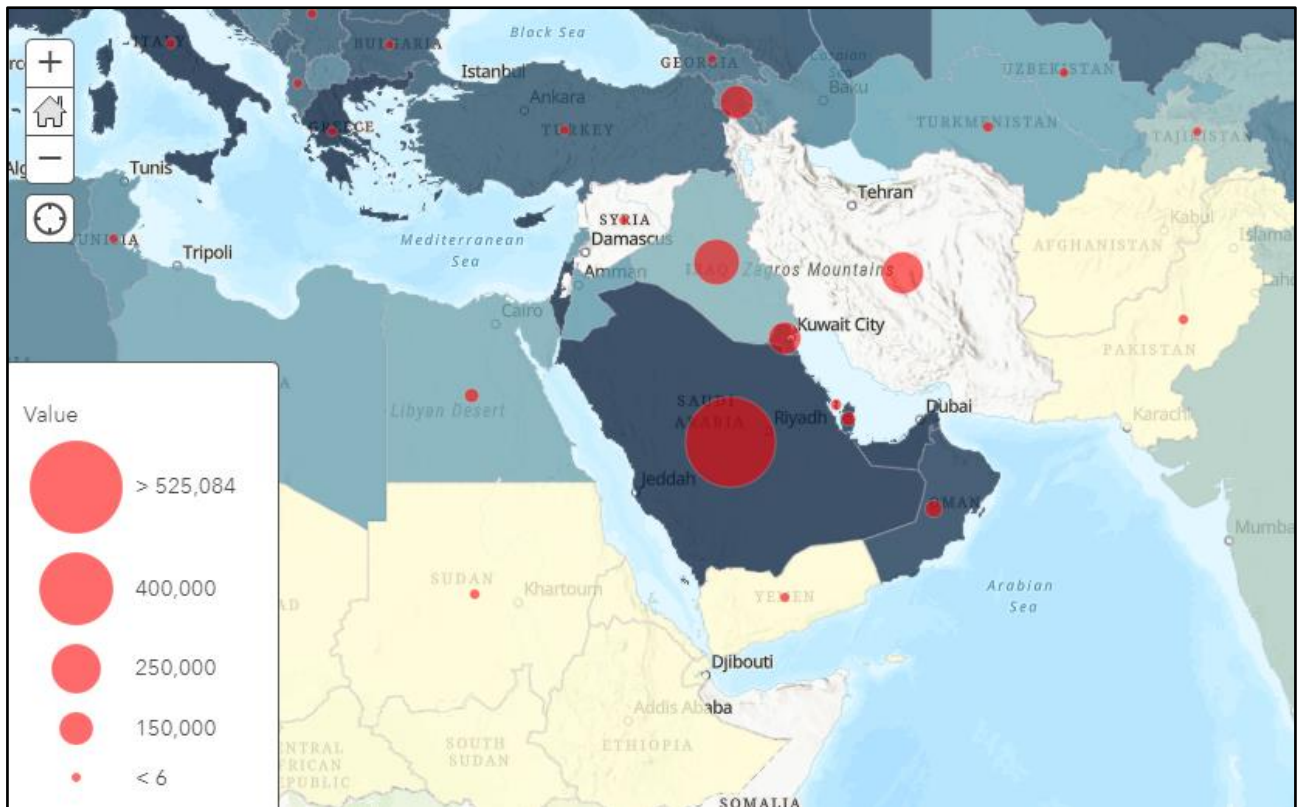
11. Snip your map and paste it under your title.

12. Underneath your map you are going to describe what it shows ... if you are stuck, use the questions below as a guide. You must back up your answers with data and place specific examples.

- Is there a relationship between HDI and oil production?
- e.g. are countries with high HDI also high in oil production?
- Or is it that countries with a low HDI have high oil production?

13. Looking at the example map above there doesn't seem to be a link between HDI and oil production globally. Zoom on ARCGIS into the Middle East region.

14. Snip this map and paste it into your document. It should look something like this.

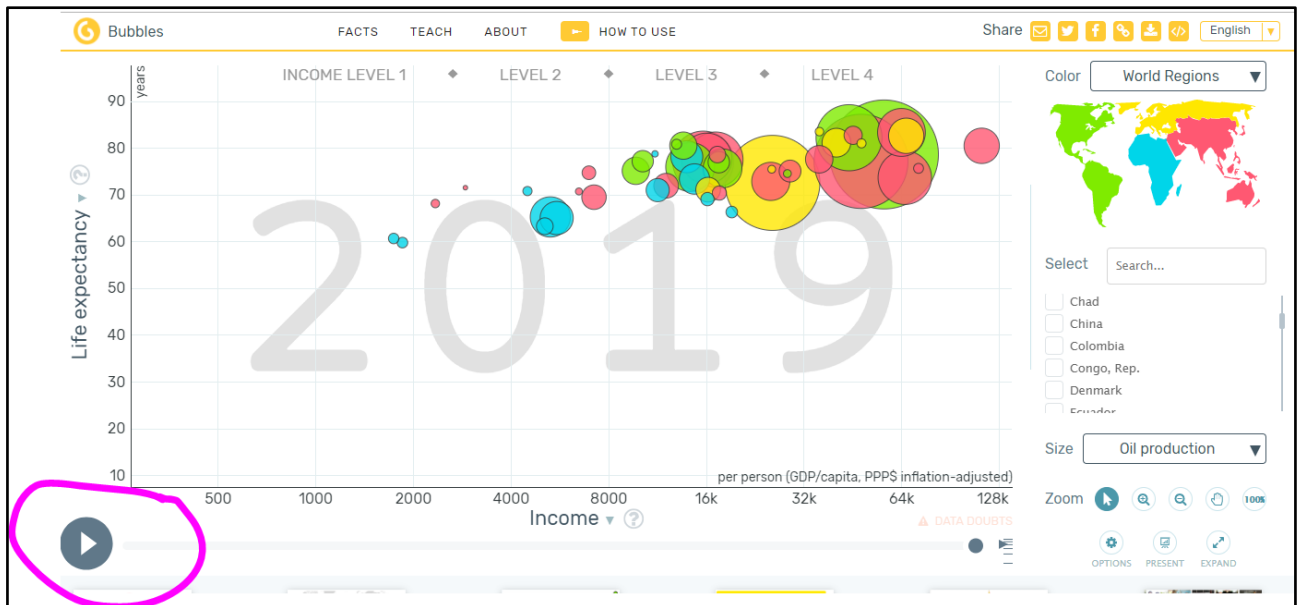


15. Is there a relationship here between high oil production and higher HDI? Use country names and data in your answer. Use PEE - Point, Evidence, Explain.

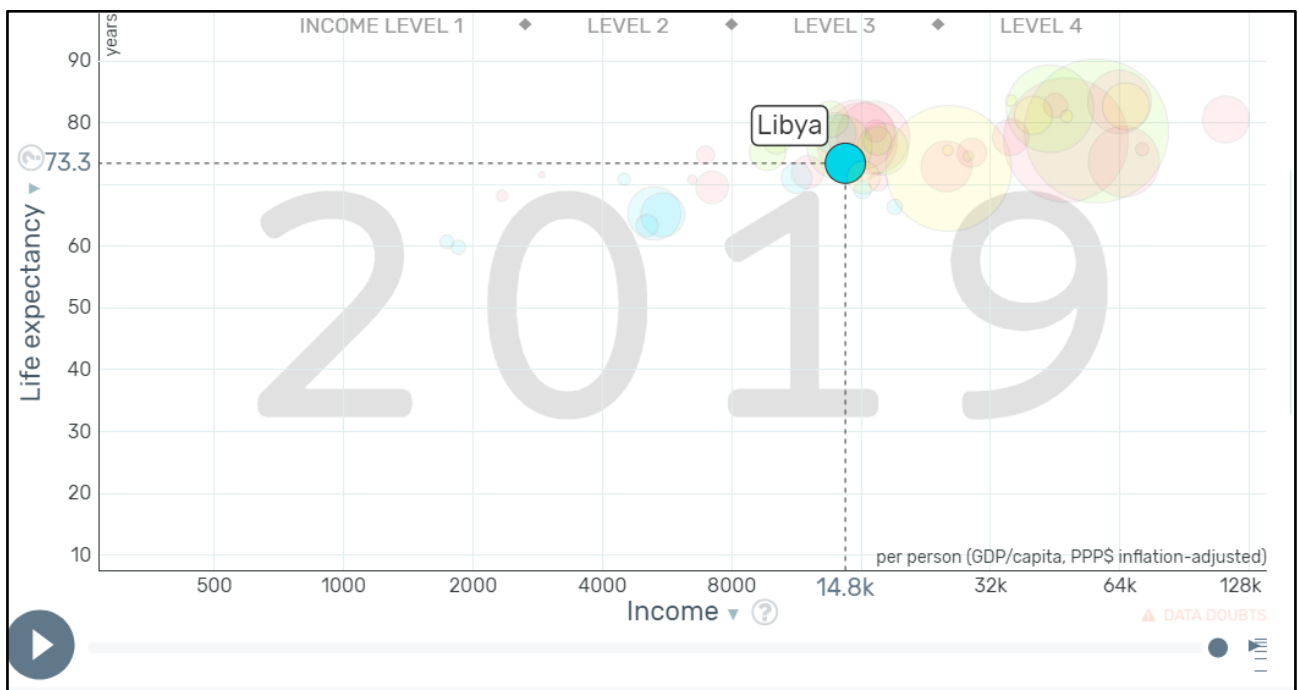
16. Now go the Gapminder website [here](#). This is set up so that

- life expectancy is on the y axis (the higher it is, the better that is),
- income in x axis (the higher it is, the more money a country has),
- The colour of the proportional circle shows you which region of the world it is from
- The size of the circle shows you the amount of oil production (the bigger the circle, the more oil is produced).

17. Press play.



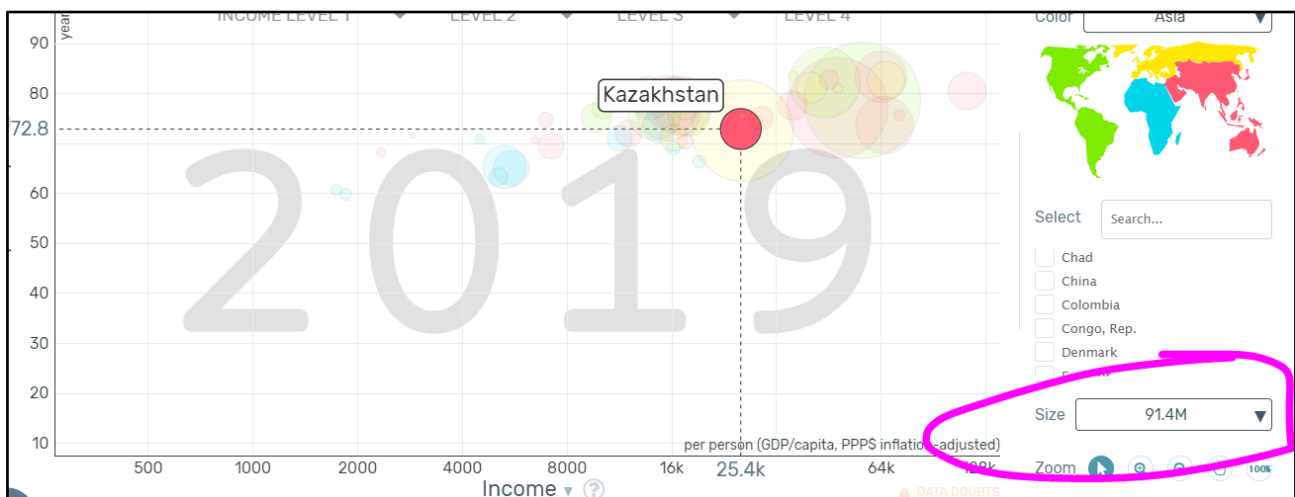
18. Play it again, and this time pay attention to the changes shown by the green circles (North and South America) and Southern Asia and the Middle East (pink). Which region starts with the largest oil production? When does the other region overtake it in oil production? Snip the animation and paste this into your document. Answer the questions below your snip.
19. If you hover over the circles, they will highlight and the name of the country appears. See below.



20. Copy this table into your document and complete it.

Oil production (from highest (biggest circle))	Country
1	
2	
3	

21. If you are not sure of the actual size of oil production - it is stated for you on the right hand side (see below).



22. Are there general patterns here across the world regions? On the world map on the top right, hover over the various regions and the region will flash on your graph. Use this to help you answer the following questions. You might want to copy and paste these questions into your document for ease.

- Which region has the highest life expectancy, income and oil production?
- Which region has the lowest life expectancy, income and oil production?
- Look specifically at Europe (yellow). Are HICs (Higher Income Countries) those who produce the most oil? Why?

- d. Now look at Asia (pink). Are the countries with higher incomes and higher life expectancies, those with higher oil productions? Why might this be?

23. Spend some time changing the scales / proportional circles on the gapminder animation.

Snip your research into your document and describe what it shows. Why is this?

24. On the right hand side, choose Saudi Arabia. Now play the animation again. What do you notice about the increase in wealth for Saudi Arabia? Does their life expectancy increase at the same rate? What does this tell you about oil production, wealth and development?

25. Print out your work and stick in your book