Computing

Lesson 1: Delving into Data Science

Data Science

Ben Garside

Task 1 - Interpret the data

Click on the link below to view a data set:

oaknat.uk/comp-AS-Mindard

What do you think this data showing you?	
What information can you extract from it?	
Does it tell you a story?	

Task 2 - Mapping the data

Study the image and answer the questions on the following slide.

Image source: Cholera Map, John Snow, UCLA Department of Epidemiology, Wikimedia

Task 2 - Mapping the data

What conclusions (if any) can you draw from looking at the map? Justify your answer.	
What is highlighted on the map around Broad Street?	
What is the link between the highlighted item on Broad Street and the dotted items?	
How does the map help to disprove the theory that cholera was caused by pollution in the air?	
Does the map alone disprove the theory? Justify your answer.	

Task 3 part 1 - Space data

Planet	Mass (1024 kg)	Light travel time from Sun (minutes)	Time taken to orbit sun (Earth days)	Length of day (hours)	Distance from Sun (106 km)	Mean temperature (°C)
Mercury	0.33	3.2	88	4222.6	57.9	167
Venus	4.87	6.1	225	2802	108.2	464
Earth	5.97	8.5	365	24	149.6	15
Mars	0.642	12.9	687	24.7	227.9	-65
Jupiter	1898	44.2	4333	9.9	778.6	-110
Saturn	568	84	10759	10.7	1433.5	-140
Uranus	86.8	162	30689	17.2	2872.5	-195
Neptune	102	258	60182	16.1	4495.1	-200

The data in the table above can be accessed electronically at: oaknat.uk/comp-L1-planetary-data

Task 3 part 2 - Space data

Provide a visualisation of some of the data from the table above. This can be done by hand (don't be afraid to be creative).

If you have access to the Internet, you might like to look at the following website for inspiration: informationisbeautiful.net.

Insert/draw visualisation below

Task 3 part 3 - Space data

Explain the data that you have visualised.	
What insights have you gained from your visualisation?	
Who might this information be useful to, and why?	

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