Focus of Field study:	**N.C. Geographical skills and Field work:** • **Use maps including digital /computer maps, aerial photographs to describe landmarks and human and physical features in the local area** • **Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the local area.** • **Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies**		
Overview	This Geography focus scheme of work is building towards understanding how Dr John Snow discovered the cause of the Broad Street Cholera Outbreak of 1854, using Geographical Information Systems (GIS)- the first of its kind. The children will need to understand the expansion of Greater London from its inception as Roman Londinium in 50AD. We will be exploring digital topographical maps of London from Roman Londoinium up to modern day to explore how the city has grown and evolved over time. London experienced huge population increase in the Victorian period- from 2 million to over 6 million. We will explore the reasons for this rapid expansion in population by looking at 'push' and 'pull' factors, and the problems mass population increase had on the city. This will lead into geographical work based on Dr Snow's discoveries during the Cholera outbreak in 1854. The children will use the same methods to see if they can discover the source of the outbreak. We will then look at transport in London's history from Victorian times, and this aided its rapid growth to becoming the largest city in the world. We will carry out fieldwork at Arsenal Tube Station using a range of methods. The children will then be able to analyse and present data that they have collected.		
Lesson Planning Sequence	**Lesson 1: How did London begin?**	**Lesson 2: Migration to London in Victorian times**	**Lesson 3 and 4: Cholera Outbreak**

| **Lessons 1-4** | Chn need to understand the changing geography of Greater London. We will examine a video of digital maps of London from its inception as Roman Londinium https://www.youtube.com/watch?v=NB5Oz9b84jM

Chn will compare maps of London from the Victorian period and modern day. From using the maps, we will discuss reasons for the expansion of London north and south of the River.

Key questions:
Why did London expand so rapidly in the Victorian age?
What do we need to find out, in order to understand this growth? (Hopefully ideas about population)
How will London continue to evolve? | Chn will examine migration of people. Push and pull factors. Then we will look closely at life in Victorian Britain after the industrial revolution. What implications would this have for large cities, such as London.

Census investigation

Housing problems

Sanitation problems | Chn will examine the Soho Broad Street Cholera outbreak of 1854. We will investigate the work of Dr John Snow.
Cholera Outbreak Soho 1854:

Chn will be working as part of Dr Snow's team to try to prevent any more deaths from the terrible outbreak.

Chn will receive a pack of data to help them narrow down the cause. The pack will include maps, death data and plot coordinates, information about local workhouses and breweries.

In pairs, chn will then use the data to plot the deaths on their maps. They will examine all evidence to pinpoint the source of the outbreak. |
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Lesson Planning Sequence	Lesson 5: Visit the site of Dr John Snow's hand pump	Lesson 6: Victorian London innovation in transport planning	Lesson 7: Fieldwork at Arsenal tube Station	Lesson 8: Analysis and Evaluation of fieldwork
Lessons 5-8	Explore the area. Draw a modern map of Broadwick Street (previously Broad Street). Map how the street is used today. Make a key to show land use. When back at school, chn will re-draw their field map to add to their work on the Cholera outbreak in Soho.	We will examine the first underground tube stations, and its impact on Victorian London. We will then compare the modern tube network, making links to Lesson 1 and the expansion of Greater London. Finally, we will compare geographical maps of the tube (accurate representations of distances from places) and the tube map with Harry Beck's schematic transport map. We will examine reasons why Beck's map is preferred to the geographical one.	We will work in teams to carry out fieldwork at Arsenal Station. **Activity 1:** sketch map of street (land use) **Activity 2:** Passenger flow (tally charts at specific times to count travellers in and out of the station. **Activity 3:** Interview passengers to understand how and why they use the station. (Open questioning emphasis) convert data to survey monkey to produce graphs etc	Chn will work in groups to present their data and analyse the results. For example, the Questionnaires will need to be inputted to the survey monkey. We will then be able to draw conclusions about age, gender, occupation etc of our sample group. This data will be small, so discussions about how to find more robust data will be covered.

Trips **Lesson 1: Visit from a Transport Planner** (Irene O'Riordan) Session will focus on how London has evolved over time. The lesson will get chn to examine maps of traffic, train networks and roads to help them understand how Londoners use transport to navigate their city. **Lesson 2: N/A** **Lesson 3 and 4: N/A** **Lesson 5: Visit to Cholera Water Pump site** **Lesson 6:**	**Skills (Human and Physical Geography** **Lesson 1** **Map Focus:** Mapping, land use maps, digital maps, comparing time periods **Lesson 2** **Human focus:** Push and pull factors of migration, population increase, census data analysis **Lesson 3 and 4** **Geographical information systems (GIS):** plotting dot data, finding patterns, map skills

Lesson 7: Visit to Arsenal tube station to carry out fieldwork **Lesson 8: Visit from Head of London Underground Network Command (Kerri Rogan)** Session would be focused on Kerri's role in London Underground. She will lead a session on how the tube works and is managed. She will also examine the history of the network, and how it is expanding.	**Lesson 5:** **Map focus:** sketch map of local area, keys of land use **Lesson 6:** **Map focus: Comparing geographical maps with Beck's schematic map. Also comparison of how data about rent prices can be shown using tube maps.** **Lesson 7: Fieldwork** Sampling, observe human transport use, record passenger flow, questionnaire for passengers and staff on how and why station is used. Discussion about how to make data more accurate and reliable. **Lesson 8: Analysing and presenting data** Use of SurveyMonkey to make questionnaires, inputting data, creating graphs, interpreting date, comparing date, drawing conclusions.

Resources
- Clip boards for fieldwork
- Graph paper
- iPads
- Tablets for photographs
- Electronic World for data analysis