

<u>Components</u> - To define global population distribution - To know the global population has grown significantly since the 1950s and describe how and why the population has changed - Define birth and death rates, suggesting what may influence them. - To know migration is the movement of people from one country to another and to understand push and pull factors. - Explain why some people have no choice but to leave their homes. - Identify the most densely and sparsely populated areas. - Begin to describe what might influence the environments people live in. - To collect qualitative data - To collect quantitative data - To suggest improvements in response to conclusions drawn. - Create a digital map to plot and compare data collected from two locations. - Collect information from a member of the public. - To review the meaning of climate? (Long-term weather conditions in a specific region.) - To define climate change? (A change in the Earth’s temperature, weather and rainfall over a long period of time.) - To understand why climate is important. (It helps us to grow food, provides habitats for humans and wildlife and regulates the Earth’s temperature and weather systems.)	
Assessment: Endpoints to be assessed Pupils could complete a quiz or complete a task Example key question: Why might someone voluntarily move to another country?	Links to other subjects Computing ‘Pupils should be taught to: - understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration - select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information’.

	Learning objective	Steps to get there (components)	Lesson plan	Resources
1	To understand the change and distribution of the global population	- To define global population distribution - To describe how and why the population has changed - To know the global population has grown significantly since the 1950s. - Identify the most densely and sparsely populated areas. - Begin to describe what might influence the environments people live in.	Opening activity: review of continents and oceans Explain that ‘population’ means the number of people living in a particular place. Key questions: Which continents do you think have the most people living there? Why? Which continents do you think have the least people living there? Why? Discuss the concept of densely and sparsely populated environments using the video link: Population Density. Explain that some large countries, such as India, have a lot of space but many people living there, so it is densely populated. Presentation: Population density. Discussion point: which countries have the highest population density (such as Singapore, Hong Kong and Bangladesh) and which countries are sparsely populated (such as Greenland, Australia and Iceland). Take feedback and discuss the UK’s population density compared to Canada’s. Main activity: use data to plot on a line graph how the global population has changed since 1500. Bring the class back together to analyse the graph. Key questions:	- Video link: Population Density - Sticky notes - Interactive presentation: Continents of the world - Atlases - Presentation: Population density - Interactive presentation: Global population - Presentation: Environments

			Why was the population so small in 1500? Why do you think the population grew so quickly from the 1950s? What do you think will happen to the population in the future and why? Using the Presentation: Environments, show the children photos of different environments. Discussion: Why are some environments more appealing to build and live in than others?	
2	To define birth and death rates and describe why they change.	Define birth and death rates, suggesting what may influence them.	Opening activity: show children two maps called ‘cartograms’. On these maps, the size of a place changes to reflect data – a bit like a pie chart, but in map form. Discuss what the children notice. Key question: What do you think will change in the next map showing the population distribution in 2020? What do you think you would see in a map showing 2100? Activity: Population statistics shared with children and ask them to note down what they notice around the graphs (children should recognise that Bulgaria has a declining population and Oman has a growing one). In pairs, children discuss and answer the question below the graphs on the Activity. Key question: What changes a country’s population? (People moving into and out of a country and births and deaths.) Interactive presentation: Birth and death rates. Explain that birth and death rates are two main factors affecting population size. If the birth rate is higher, the population will increase; if the death rate is higher, the population will decrease. The difference between them is called ‘natural increase’. Key questions: When will a country have an increasing or decreasing population? What may influence birth and death rates? Activity: Birth and death rates, sorting different factors into two columns (birth rate and death rate). Note that answers are flexible, may have multiple solutions, and are designed to encourage discussion. Challenge/closing activity: Natural increase, completing the table to find the natural increase in various countries. Card matching - geographical terms and definitions.	- Presentation: Population cartograms - Interactive presentation: Birth and death rates
3	To recognise the push and pull factors influencing migration.	- Define migration, discussing push and pull factors. - Explain why some people have no choice but to leave their homes. - To know migration is the movement of people from one country to another.	Opening activity: group discussion: What would make you want to leave a place? What would make you choose to live in a place? Presentation: Push and pull factors. Explain that migration is when people move from one place to another. There are many reasons people may move from one place to another. We group these into ‘push’ and ‘pull’ factors. Main activity: Environmental, economic or social? Children to sort the push and pull factors into these three groups. Explain that some people involuntarily leave their homes to find safety in another country because of conflict or war where they live. These people are called ‘refugees’. Presentation: Migrants. Discuss why a migrant differs from a refugee. Show the children the video on the link: BBC Newsround World Refugee Day: What is a refugee? Key questions: How has life changed for these refugees?	- Large paper with pre-written questions - Presentation: Push and pull factors - Presentation: Migrants - Link: BBC Newsround World Refugee Day: What is a refugee? - Presentation: Diamond nine - Cards pre-cut and put into sets for the Activity: Diamond nine.

			What questions would you like to ask them? Why are these children considered ‘refugees’ and not ‘migrants’? Challenge/closing activity: Diamond nine cards, containing factors for migration. Children to discuss which are the most and least important factors then arrange their cards into a ‘diamond’ shape. Children to justify their ranking of migration factors.	
4	To begin to understand the impact climate change can have on the global population.	• To review the meaning of climate? (Long-term weather conditions in a specific region.) • To define climate change? (A change in the Earth’s temperature, weather and rainfall over a long period of time.) • To understand why climate is important. (It helps us to grow food, provides habitats for humans and wildlife and regulates the Earth’s temperature and weather systems.)	Opening Activity: Match the correct labels in the word bank below the map to show each region and its population. Key questions: Which are the most populated regions and why? Which is the least populated region? Presentation: Climate change in the UK. Explain to the children that climate change is impacting populations all over the world, including in the UK. Key question: Why is climate change happening? Main activity: Children to consider the causes of climate change, its impact on population and what can be done about it. Use the presentation: Climate change and population and the BBC Newsround clip to display and answer the questions Key questions: What is causing climate change? What impact will climate change have on the population? What can we do about it? Each child to create an informative and well-designed poster to answer the above questions. They should display their group’s question at the top of the page and some possible answers below. Challenge: Groups to present their informative posters by creating video clips or filming the presentation of their posters. These could be put together using editing software, such as iMovie. Closing activity: How do you think a growing population might impact the local environment?	• Interactive presentation: Regions of the UK • Link: BBC Newsround: Why is climate change a problem?' • Link: BBC Newsround: Climate change: What impact will rising sea levels have? • Link: BBC Newsround: Guide: What is drought and how does it happen? • Presentation: Climate change in the UK • Presentation: Climate change and population • Access to laptops/tablets – optional
5	To collect data showing how population impacts the amount of traffic and litter in an area.	• To collect qualitative data • To collect quantitative data • Collect information from a member of the public.	Opening Activity: Explain to the children that they will be leaving the classroom to complete fieldwork to answer the question, ‘How is population impacting our environment?’, with a focus on traffic, looking at the levels of noise and air pollution, and littering. Inform the children that they will each talk to adults and will need to introduce themselves. This can be done using the text at the top of the Activity: Likert scale. Displaying a digital copy of the OS map that you are using, hand out to the children the pre-prepared route they will be taking on the same OS map and briefly talk them through it, getting them to mark with an ‘X’ both locations at which they will stop. Ask the pupils to identify any symbols that may help with direction. Key question: How can we stay safe on our route? Discuss how pupils can avoid risks. Let them know that being successful in today’s fieldwork involves staying safe. Ensure each group is provided with necessary tally chart tables and Likert scale sheets, as well as a device for voice recording and a timer.	• Children groups for surveying. • OS map of Wye with two points marked for data collection. • Interactive presentation: Data collection methods. • Clipboards • Timer • Voice recorder • Calculator

			Main activity: in their groups, children complete all activities in both locations to create a robust and reliable data set that they can use to compare. Each pupil has to talk to at least one member of the public to complete their Likert scale. This will have to be completed by the child and a member of the public twice, once in the most populated area and once in the quieter location. Challenge/Closing Activity: Children use a piece of string, a ruler and the scale on the map to measure the route they took on the OS map.	
6	To write a report on the fieldwork process, analyse findings and make suggestions to improve a situation.	• To create a digital map to plot and compare data collected from two locations. • To suggest improvements in response to conclusions drawn.	Opening activity: Children to use self-generated tally charts and Likert scales from previous lesson to comment on findings in pairs and then discuss. Key questions: How does traffic change in the more populated area? How did the amount of litter change in a populated area compared to a less populated one? Main Activity: Using the findings from their fieldwork, pupils type up a written report using a digital word processing application, such as Microsoft Word. The report will need four paragraphs: An introduction to the enquiry and the methods chosen; the route taken with brief data; a summary of findings; recommended improvements. Children write their findings from the opening activity in notes. Children should study their Likert scales further, sorting them into two piles: those from the least populated location and those from the most populated location. They analyse these and identify common themes about peoples’ opinions on traffic, litter, noise and attractiveness in each area, making notes under and appropriate heading. In addition, they can make notes on the sound recordings from both locations. Pupils create a digital map of their route and brief findings at both data points. Main Task: Children then begin typing their report. Children can insert the downloaded map they have just created. When children begin to write ‘Paragraph 3 – Summary of findings’. Key Questions: In which location was there more traffic? Which location had the most noise pollution? Which location did people feel had the most litter? Which location did people find most pleasant? Presentation: Improving the areas. Brainstorm ideas on what the city, town or location could do to reduce traffic and litter and make the area more attractive. Key Question: What could be done to decrease the level of traffic and litter in an area? Once completed, allow the children time to practise reading their reports aloud. Key Questions: Who could we share our reports with to encourage change in our local environments? How is the population impacting our environment? Closing Activity:	• Data collected from Lesson 5, including devices with sound recordings and OS maps. • Access to a device • Scribble maps • Presentation: Improving the areas • Quiz – pupil answer sheet • Knowledge catcher

			Children to work through the unit quiz: Why does population change? Then complete the ‘Knowledge Catcher’ independently.	
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