



Where We Live

HUMAN GEOGRAPHY • ORIENTATION AND SETTLEMENTS • WHERE WE LIVE

Section 1: Different Places to Live

- Are there any parts of the world where humans don't live?

There are no parts of the world where people cannot be found, although there are obviously large empty areas in most continents as a result of the physical environment. Deserts, mountain ranges and tropical forests are all areas that create problems for humans, although as a species we are good at overcoming these problems. The only sizeable place that has no permanent residents is Antarctica.

There are areas of other continents with few permanent residents and, given the size of the Earth, quite a lot of us are concentrated into a small percentage of the total land surface. The fact that around 71% of the Earth's surface is covered with water also means there are large empty oceanic areas. Perhaps one day we will have a significant number of people living in floating cities, as land becomes increasingly scarce and overcrowded.

When studying the population living in a country, a measure called population density is used. This is calculated by dividing the total population by the area in which they live, to give a value of people per square mile or square kilometre.



The Sahara is one of the driest places on our planet

• Suggested Activities

- Ask the students to select a country and then describe how easy it might be for a person to live there. Use geographical statistics, such as population density and location to help with this.
- Ask the students to locate a variety of countries and calculate their population density.

• Suggested Film

- Population: Physical Factors

Extension Questions

Q1. Why does nobody live full-time in Antarctica?

Conditions in Antarctica are such that there has never been any history of human inhabitation. The Arctic has a wide range of land mammals to supply food, and the majority of animals that do survive in Antarctica live on the ice surrounding the continent. Antarctica is the coldest, windiest, driest and highest continent, and is covered by a layer of ice up to 5km thick in places. There is no vegetation, the winter months are dominated by darkness and temperatures fall far below freezing. For a number of years there have been a variety of scientists, including geographers, living in Antarctica to carry out scientific research, but this is usually only short-term.

Q2. Which places have the lowest population density?

Antarctica, unsurprisingly, has the lowest population density of any area. Of the countries that do have a permanent population, Mongolia has the lowest population density of 2 people per square kilometre. Namibia, Mauritania and Botswana have a density of between 2 and 4 people per square kilometre. Australia and Canada are both large countries, so it is not surprising that they have a low population density. Some deserts can also have quite high population densities; for example, the Thar Desert in Asia forms part of India, one of the most highly populated countries.

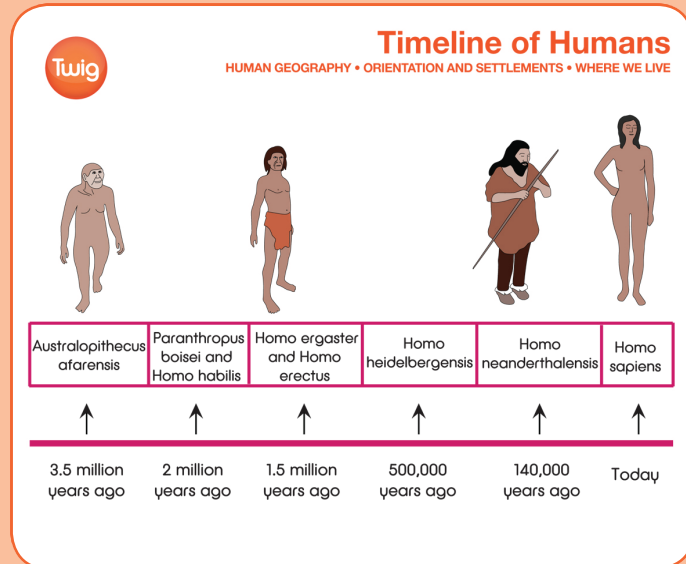
Extension Question

Q3. Which places have the highest population density?

The highest population densities tend to be very localised and linked with cities or urban areas. Cities such as Hong Kong and Shanghai have small districts with high-rise buildings closely packed in, and tens of thousands of people per square kilometre.

Monaco and Singapore are amongst the countries that have extremely high values. Within Europe, the UK has the highest density, but there is a great difference between the high densities in cities like London and the lower densities in the Scottish Highlands or English Lake District.

DIAGRAM 01:



• How do humans make places more difficult to live in?

People make places more difficult to live in through their actions. One of the ways they do this is through carelessness and damage to natural resources. People have removed vegetation and trees, destroyed habitats, driven over fragile surfaces and increased the amount of rubbish added to landfill sites.

One of the key resources that people need is water. When this has been exhausted or availability is reduced, the ecosystems and human systems that rely on it begin to change, and this is not always for the better. Population growth puts extra pressure on key resources. Rivers have sometimes been diverted to grow food, and entire seas, such as the Aral Sea, in Central Asia, have virtually disappeared as a result. A great deal of effort is spent managing the available water supplies in these marginal areas.

There are several areas where contamination from oil extraction has caused pollution on a vast scale. These include large areas of Siberia and river deltas in Western Africa. Another human activity that causes pollution is the generation of energy, including the pollution from coal power stations as well as nuclear radiation resulting from leaks from nuclear reactors that can contaminate areas for thousands of years. The exclusion zones around the Fukushima nuclear plant in Japan and Chernobyl in the Ukraine are two examples of this. The exclusion of human activity around Chernobyl has allowed nature to reclaim this area.

• Suggested Film

– Tuvalu: The Threat of Rising Seas

Extension Question

Q4. Which places are the most dangerous on Earth?

Many different places on Earth experience dangerous conditions and both man and nature can cause these, although a place can only be considered dangerous if man is present when such events take place. A combination of tectonic activity and tropical storms affects large parts of Southeast Asia, but here there are also many favelas and similar shanty towns where disease and high crime rates are a problem. If we were to use life expectancy as an indicator, then Zimbabwe and Sierra Leone would be added to the list of dangerous places to live. Another element that increases danger is the actions of people. The countries with the highest murder rates include Honduras and El Salvador in Central America.

• Are some parts of the Earth going to be abandoned in the future?

The phrase ‘climate refugee’ or ‘environmental refugee’ has emerged in the last few decades to describe a likely future scenario when people will be forced to move as a result of changes brought about by climate change. This may be the evacuation of cities affected by rising sea levels, or from land which has become unusable due to changes in weather patterns. There is likely to be some migration as a result of impacts in small communities, and the cause of this could be linked back to climate change.

It is possible that some low-lying island groups may be the next places to be affected. These include some of the various archipelagos in the Indian and Pacific Oceans. Many of these are based on coral atolls, which means they are low-lying, and have very little chance of raising the land higher or constructing defences. Seawater also bubbles up through the coral at high tides, contaminating any fresh water and damaging the soil. There are also concerns about some coastal communities in the circum-polar regions of the north. The reductions in sea ice mean that large waves now hit the shore and cause rapid erosion.



The low-lying island of Tuvalu is threatened by rising global sea levels

Extension Questions

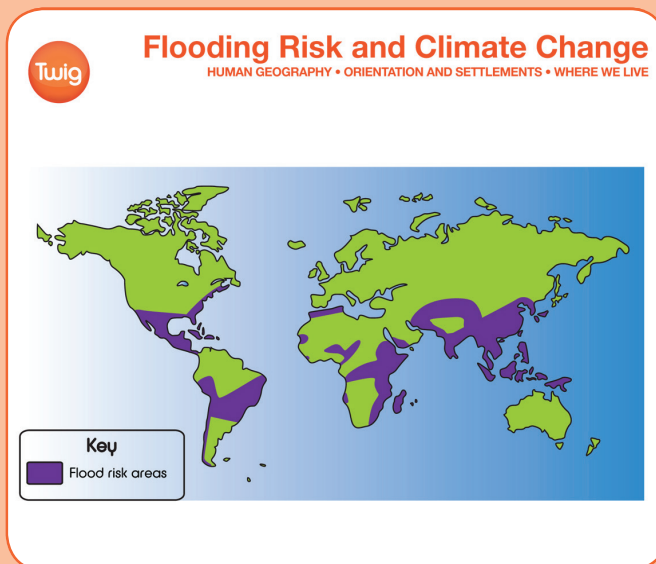
Q5. Have any places actually been abandoned?

There are already places which have been abandoned by people. Going back to the 1930s, the islands of St Kilda to the west of the Outer Hebrides, Scotland, were abandoned as the people there could no longer support themselves. A nuclear disaster caused a zone around Chernobyl in the Ukraine to be abandoned. One of the first places to be affected by climate change is the Carteret Islands near Papua New Guinea. These islands were partially evacuated in 2008. There are also a variety of villages and towns in Italy and Greece that have been abandoned due to earthquake damage.

Q6. How are cities preparing for these possible changes?

Cities which are potentially threatened by rising sea levels are preparing by building sea defences, or putting flood barriers in place. Although one could argue that it is already ‘too late’ for Venice, Italy, there are plans to build a flood barrier to protect the city. The city of St Petersburg, Russia, has just built a barrier to stop annual flooding which threatened its heritage and architecture.

DIAGRAM 02:



• Suggested Film

– Tuvalu: The Threat of Rising Seas

Section 2: Diversity and Extreme Environments

• What do we mean by 'ethnic diversity'?

If one were to gather people from each continent and country, one would realise that there are some striking differences in their facial characteristics, skin pigmentation and language. Some of these are racial characteristics rather than ethnic. There would also be cultural differences, which would make them recognisably different from each other. Ethnicity refers to a group that has a particular shared heritage or language, and most countries now include people from many different ethnic groups. A country's diversity is a great asset and part of the cultural fabric, but it can also bring about challenges. In some countries, these have given rise to discussion of issues around multiculturalism, immigration and national identity.

Extension Questions

Q7. Which is the most common ethnicity?

The most common ethnicity in the world is Han Chinese. China has a range of ethnic groupings, partly as a result of the country's large size, but these also reflect the changing nature of the country over many thousands of years. Over 90% of the country's population, and around 20% of the world's population, are Han Chinese.

Q8. Which countries have the greatest ethnic diversity?

There are many countries which have a tremendous range of diversity, and these are often those which extend through many lines of latitude, such as Japan, Russia and China. The globalised nature of the world means that there are very few countries, other than those which are more remote and have restrictions on immigration, where there is not a mix of ethnic groups in the population.

• Suggested Films

- Brazil: Ethnic Diversity
- Settlements and Apartheid

• Suggested Activity

- Ask the students to explore the ethnicity of their own country or region. Which countries are represented in their home area and how are they visible within their community?

• What makes a place an 'extreme environment'?



The Darhad have no permanent settlements, and are among the most self-sufficient people on the planet

We call certain areas of the Earth 'extreme environments'. There are various reasons why we might use that term but, generally, it is because they provide difficulties for people to live there without some sort of additional effort being made, such as special clothing, a specialist diet, or survival skills which have become part of the local culture. In some cases, for the people who live in these environments, their bodies have adapted to cope with extreme altitude or temperature.

Extension Questions

Q9. Is the British Isles an extreme environment?

The British Isles' position between the tropics and the poles, and influence from the Atlantic Ocean means that it does not have an extreme climate. There may be a few weeks in the year when temperatures reach uncomfortable levels, but these only last a matter of days before the 'usual' pattern is restored. It also has occasional wintery weather and snowfall, but this generally melts within a few days. Nowhere in the British Isles, other than the tops of some of the Cairngorms or other Scottish mountain chains, really approaches the extreme weather found in other world locations. This is termed a 'cool temperate western maritime climate'.

Q10. What is happening to the world's wilderness areas?

There are still large areas of the planet which are classed as wilderness as they have not been significantly modified by human activity. Increasingly, however, these areas are being encroached on by people. The empty areas in many countries need management and some sort of conservation if they are to keep their designation. Possibly the largest area of wilderness is the Taiga, the northern coniferous forests stretching across the most northerly countries. Climate change and a rising population density are among the pressures on these areas, along with resource extraction.

Q11. How are places becoming more extreme?

Population pressures are becoming more important in removing the few reserves of water in some locations, including the mountains of Morocco. Water reserves are replaced very slowly compared to the speed at which they are being exploited. There are also changes being brought about by climate change, which means that some places, including Australia, are becoming increasingly difficult places to live. Drought, forest fires and floods are amongst the extremes of climate that are becoming more common.

• Suggested Films

- Extreme Living: The Frozen North
- Extreme Living: The Sahara
- Extreme Living: Nomads

• What strategies have people developed to cope with living in extreme environments?

Human ingenuity has become apparent over the centuries, as our species has colonised the planet. This can be seen in the people who harvest honey from the wild bees of the Himalayas, to the Inuit of the far North who hunt seals on the open pack ice. Adaptations to diet are also important. The Inuit don't eat fruit or vegetables, but they don't have the health problems that we might have if we tried the same. Access to water and food is the major limiting factor, but the construction of houses has also varied from place to place to ensure that they are as comfortable as possible within the environment in which they are located.



The Eskimo's unique knowledge of native fish and sea mammals provides an excellent diet

Extension Questions

Q12. How do people survive in the Arctic?

Although many people in the Arctic now live in modern housing and lead more settled lives, the traditional way of life for circum-polar people was more nomadic, because of the lack of grazing for domesticated animals or the migration of animals that were hunted. People made use of the animals that live in the Arctic to ensure their survival. This generally meant hunting and using local knowledge to track and kill them. The Arctic diet still heavily relies on meat as nothing can be grown. Animals are also used to produce clothing and other items, and animal skins are used in the construction of housing. Alternatively, snow can be used to build an igloo. This is also the name given to a dwelling made from whalebone and hide, packed round with snow for insulation.

Q13. How do people survive in desert locations?

The main issue with survival in desert locations is the difficulty of obtaining water. There are some areas called oases, where water can be accessed close to the surface; elsewhere wells need to be sunk. Another issue is the high temperatures in these areas, which means that houses are often painted white to reflect the heat, and built around sunken courtyards. There are also changes in the daily routine to avoid the heat of the day. Trade is important, and animals that can survive the hot conditions, such as camels, have traditionally had great importance.

Q14. How do people survive in mountainous regions?

There are several countries which have large numbers of people living at high altitude. Many of these lie in South America, for instance, Peru and Bolivia. Others lie in the Himalayas or other high mountain ranges. As with other extreme environments, local knowledge and hunting are important. There are also domesticated animals, which are often moved between pastures during the year. One main physiological change which takes place among groups such as the Sherpas of Nepal is a change in lung capacity and the way that the brain reacts to altitude. They can cope with the thinner air better than someone who is not used to it.

• Suggested Films

- Extreme Living: The Frozen North
- Extreme Living: The Sahara
- Extreme Living: Nomads

• Suggested Activity

- Ask the students to produce a series of survival guides for each of the following environments: polar, desert and mountain. Ask the students to provide and explain solutions to the problems caused by these environments.



The greatest threat to the Darhad is losing animals either to weather or packs of wolves

Section 3: The History of Humans

- Which parts of the Earth were first colonised by humans?

It is generally thought that human beings first developed as a separate species somewhere on the African continent. At the time, Africa was very different to how it is today, it had a different climate and vegetation. Early humans left Africa around 80,000 before present (BP) and began to colonise other parts of the world. This was due to the presence of land bridges between places that were later separated as ice sheets melted and sea levels rose. There have been several sub-species before the eventual development of Homo sapiens, the Latin name for our species.

Extension Questions

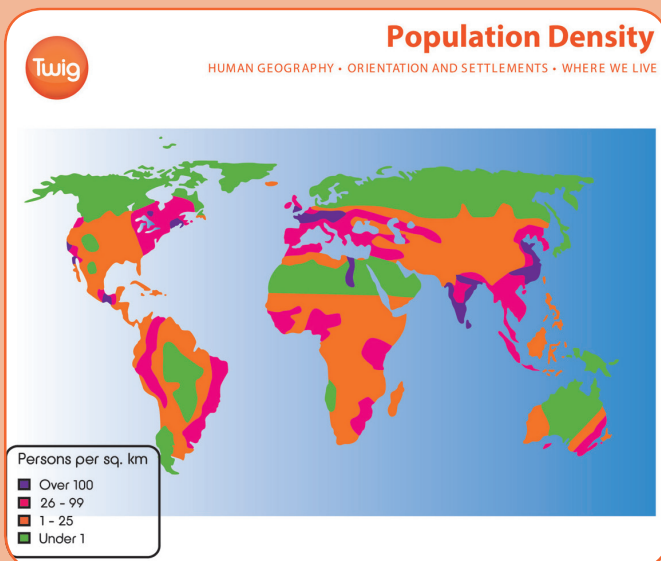
Q15. Who is Lucy?

Lucy is a skeleton: the remains of a human-like creature called a hominid, who was found in 1974 in a ravine in Ethiopia. She is thought to be 3.2 million years old. Her discovery played an important part in providing evidence for the early development of humans in this part of the world, particularly the fact that she walked upright. About 40% of the complete skeleton was discovered during excavations.

Q16. Where is Neander?

The Neander valley is located near Dusseldorf in Germany. The area is called Neanderthal and is characterised by limestone cliffs. In the 1870s, a skull was discovered in a cave in these cliffs which was shaped differently from those that had been seen before. It was the first piece of evidence of a group of humans who lived across Europe several hundred thousand years ago. Further evidence has since been found in numerous locations. Neanderthal man was another stage in the development towards our species.

DIAGRAM 03:



Q17. How does DNA help trace people's heritage?

DNA researchers have discovered that our ancestry is still present in all of us, to some extent, within our genetic code. Even people whose family has been based in one area for decades will still have a legacy of DNA from far earlier ancestors. There have been several studies which have shown the importance of a Mediterranean ancestry to many people in the UK. This science is called genetic anthropology, and helps us retrace the story of how we got to where we are today.

• How have glaciations affected the human population?

The Earth has undergone several periods of glaciation where ice has extended far beyond the poles. At these times, the pre-historic human population would have found safe areas that were away from the ice. Advancing ice and the peri-glacial conditions ahead of it, would have depopulated areas and forced migrations. Humans would have followed the migrating animals. As the ice retreated, large volumes of water would be created, leading to flooding and changed coastlines. Vegetation would eventually recolonise areas, although soil would have often been removed by the ice and it would take a long time for it to form again.

Early man lived in caves, as evidenced by the cave paintings at Lascaux in France and other locations, and they would have hunted across northern Europe at the time.

Following a period of advancement, retreating ice sheets reveal a ground which has often been scraped clean of soil. The action of ice produces deposits of very fine material, and when this is picked up by the wind and deposited in layers, the result is a fine, fertile soil called loess or limon. Areas of southern China have thick loess deposits, which is excellent for crop growth. The release of pressure when the ice is removed also produces rock which is more easily quarried. As glaciers retreat, coastal river valleys are flooded in their lower sections creating rias, or fjords, where the valleys were glacial in origin. These form excellent sheltered harbours.

Extension Questions

Q18. What leads to an ice age?

The major reason for an ice age is a change in the orbit of the Earth, which takes it further away from the Sun than usual. This usually means a change from a circular orbit to a more elliptical one, and reduces the overall amount of incoming solar radiation (insolation) for a lengthy period of time. There are also related factors, such as slight 'wobbles' that the Earth makes on its axis, and also potentially periods of increased volcanic activity. These combine over long periods of time to produce fluctuations in the amount of heat reaching particular parts of the Earth's surface. This is called the 'Milankovitch cycles'.

Q19. What was the 'Little Ice Age'?

Over the Earth's history there have been many fluctuations in the average temperature over a large proportion of the Earth's surface, and these have resulted in cooling and warming periods. The Little Ice Age was the most recent example of a minor ice advance, although it was not a true 'ice age'. It lasted from around 1550 to 1850.

• Suggested Film

– Extreme Living: The Frozen North



For mobility, dog sleds and kayaks are crucial for life in the frozen north

• Will there ever be another ice age?

With the likely changes in climate being a warming trend, it seems unlikely that we will ever see another ice age, although it must be remembered that the major cause of ice advancement is related to the orbit of the Earth, which would outweigh the impacts that we are having on the atmosphere. There is still a chance that we could move back into a period of cooling in the future, although it is not likely to be in our lifetime. Climate cycles are more long-term than that.

Extension Questions

Q20. What has melting ice revealed?

There have been many 'secrets' revealed as glaciers melt away, particularly the Alpine glaciers which are melting more rapidly. Any people or other objects that may have fallen into crevasses centuries ago are slowly moved down with the ice, and appear at the snout as the glacier retreats. At the Bosson glacier in France, remains from the crash of the 'Malabar Princess' passenger aeroplane, which killed 48 people in 1950, reappeared almost 30 years later. A mail sack emerged in 1978, and part of the landing gear was found in 1986. Mummies have been released from the permafrost in some areas of the Arctic, and Prehistoric creatures such as mammoths are also released in the frozen wastes of Siberia.

Q21. Who was Ötzi?

Ötzi is the name given to the mummified remains of a man who lived over 5300 years ago. He was found in September 1991, in the Alps between Austria and Italy. He was revealed because of melting ice, and was dressed in clothing and carrying weapons. Because he fell into a gully below the ice, his body was preserved better than most other remains. Study of his body and artefacts have revealed many things about the lives of people during this period of history.

Q22. How might melting ice change the map of the world?

Over the last tens of thousands of years, the ice cover in the world has fluctuated, and global sea levels have followed suit. As ice sheets advance, precipitation that would normally be returned to the sea is retained on land, lowering the sea level relative to the land. The release of water at the end of a glaciation increases the sea level. The English Channel was only filled with water 9000 years ago, and an even earlier release of water was responsible for creating the channel, so without this, France might still be joined to England. Other similar channels would have separated islands like Madagascar from Africa, and created the shape of the Mediterranean and other oceans.

• Suggested Film

– Extreme Living: The Frozen North

• Suggested Activity

– Ask the students to research the fascinating story of Ötzi the Ice Man. A particular point of interest is the arguments about whether he was found in Austria or Italy. This provides some interesting questions regarding how the borders between countries are decided, and how climate change might change these.

• Quizzes

Populating the World: Physical Factors

Basic

• What was important to early settlements?

- A – proximity to water
- B – fertile soils
- C – proximity to woods
- D – all the above

• What was responsible for the first trade and travel?

- A – civilisations that were concentrated around woodlands
- B – civilisations that were located on fertile soils
- C – civilisations that were concentrated around major river flows
- D – civilisations that were situated at higher altitudes

• Modern settlements grow around...

- A – trade and transport hubs
- B – roads
- C – shops and businesses
- D – major river flows

Advanced

• What was a key concern to early settlements?

- A – economic factors
- B – transport networks
- C – trade hubs
- D – environmental factors

• Which early settlements often grew into hubs of commerce?

- A – those with the richest farming areas
- B – those situated at lower altitudes
- C – those situated close to woodlands
- D – those concentrated around motorways

• Compared to those at higher altitudes, settlements situated at lower altitudes experience...

- A – wetter weather
- B – shorter growing seasons
- C – longer growing seasons
- D – colder winds



Populating the World: Physical Factors

Basic

• What is the world population?

- A – 4 billion
- B – 5 billion
- C – over 7 billion
- D – over 9 billion

Advanced

• What has allowed humans to settle on every continent and adapt to virtually any climate?

- A – maps
- B – an increase in world population
- C – technology
- D – roads and railways

• Answers

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