

Co-op Academy North Manchester - Year 7 Geography Curriculum

Y7	HT1	HT2	HT3	HT4	HT5	HT6
Topic(s)	Think Like a Geographer	The Local Area & Environmental Quality Survey	Environmental Quality Survey & Hydrology	Hydrology & Climate Change	Climate Change & Population	Population
Substantive Knowledge (Know That...)	<ul style="list-style-type: none"> There are 7 continents and oceans: N/S America, Africa, Europe, Asia, Australasia, Antarctica, N/S Atlantic, N/S Pacific, Indian, Southern, Arctic. There are 5 countries in the British Isles each with its own capital city: England – London, Scotland – Edinburgh, Wales – Cardiff, Ireland – Dublin, N Ireland – Belfast. An 8-point compass rose is used to provide direction – N, NE, E, SE, S, SW, W, NW, N. The earth is divided into degrees of longitude and latitude. There are 5 famous lines of latitude and 2 famous lines of longitude. Latitude is measured first from 0- 90 degrees north or south. Longitude is measured second from 0-180 degrees east or west. Latitude and longitude are written together to 	<ul style="list-style-type: none"> Residential areas are where people live. Industry is business and where people work. Urban greening is space in the city for grass/plants/trees. Leisure and recreation are places for people to socialise and exercise. Transportation links are key to a successful urban environment. Social well-being is a measure of health and happiness. Economic well-being is a measure of money. Environmental is Geography that involves humans working with, and changing, the natural world. Trend is a general pattern. Evidence is an example of a place or use of data/facts. Anomalies are parts of a pattern that do not fit the trend. 	<ul style="list-style-type: none"> Rivers are large, natural streams of water that flow downhill Rivers flow from high land to low land The river long profile is split into three sections (upper, middle and lower courses) Rivers get wider and deeper further downstream The area in which the river begins is the source. Where a river ends its journey flowing into the sea or a lake is the mouth. The area which is drained by a river and its tributaries is the drainage basin. The boundary between two drainage basins marked by a ridge of high land is the watershed. A smaller river that joins a larger river is a tributary. Where two rivers join 	<ul style="list-style-type: none"> Solar radiation enters the earth's atmosphere in the form of shortwave radiation. Longwave radiation is reflected off the earth's surface, some escapes into space and some is trapped. CO2 and methane are released by burning fossil fuels, industry and farming. The extra greenhouse gases trap more of the longwave radiation. Greenhouse gases cause the earth's climates to change. Climate change is affecting the earth. Most impacts are negative and outweigh any positives. Climate change will cause sea levels to rise and areas to flood. Some areas will become arid due to drought impacting on species and farming. 	<ul style="list-style-type: none"> Population density is measured per km². This is one OS square as highlighted above. Sparsely populated means few people per km². Densely populated means many people per km². The Demographic Transition Model (DTM) is based on historical population trends of two demographic characteristics – birth rate and death rate – to suggest that a country's total population growth rate cycles through stages as that country develops economically. Each stage is characterised by a specific relationship between birth rate (number of annual births per one thousand people) and death rate (number of annual 	

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	<p>provide an accurate location.</p> <ul style="list-style-type: none"> • Latitude is written first and longitude second e.g. lat/long of Manchester is 53°N 2°W. • Places can be located using four figure grid references. • All OS coordinates have two sets of numbers: Easting (printed on top and bottom of paper maps), which is the vertical grid line and Northing (printed on left and right edges of map), the horizontal grid line. • The first axis to measure is the easting and then the northing 'along the corridor and up the stairs'. • The grid squares on your OS map are all one kilometre across, meaning four figure grid references cover an area of 1km • Four figure grid references are written as four numbers e.g. 0527. • OS maps/satellite images show land use. • Main roads provide good transport access. • Settlements provide market and labour. • Flat land is cheaper and 	<ul style="list-style-type: none"> • Trend, Evidence, Anomaly (TEA) can be used to describe most geographical data. • To describe a graph follow the trend from left to right and describe if it does down, up, or stays the same. • All OS coordinates have two sets of numbers: the Easting (printed on top and bottom of paper maps), which is the vertical grid line and the Northing (printed on left and right edges of map), the horizontal grid line. • The first axis to measure is the easting and then the northing 'along the corridor up the stairs'. The grid squares on your OS map are all one kilometre across, meaning four figure grid references cover an area of 1km. • The enquiry process follows the format of: hypothesis or key question, theory, methodology, data collection, data presentation, data analysis and evaluation. • Likert scaling is a bipolar 	<p>is a confluence.</p> <ul style="list-style-type: none"> • Interception is when the leaves of trees stop precipitation reaching the ground. • Surface run-off is the movement of water from the surface into the soil. • Surface storage is water stored on the surface in lakes or puddles • Infiltration is the movement of water through the soil back into the river. • Groundwater is the storage of water in the rock layer. • Surface run-off is the movement of water over the surface of the land back into a river. • Groundwater flow is the movement of water through the rock layer towards a river. • Percolation is the movement of water downwards from the soil layer into the rock layer. • Erosion is the wearing away or breakdown of material by the river • Hydraulic action is the sheer force of the water hitting and wearing away the 	<ul style="list-style-type: none"> • Glacial periods are cold and inter-glacial periods are warm. • The earth's climate record can be evidenced through paintings, diaries, tree rings, ice cores, sea ice thickness. • Climate change refers to long-term shifts in temperatures and weather patterns. • The earth's climate history has changed over time due to natural factors. • Sunspots are areas of the sun that release more solar radiation, leading to global warming. They work in 11-year cycles. • Volcanic eruptions block solar radiation and lead to global cooling. • Milankovitch cycles show the earth changes orbit around the sun every 96,000 years. A closer orbit leads to global warming. • Climate change is affecting the earth. • Most impacts are negative and outweigh any positives. • Climate change will cause sea levels to 	<p>deaths per one thousand people).</p> <ul style="list-style-type: none"> • As these rates change in relation to each other, their produced impact greatly affects a country's total population. Within the model, a country will progress over time from one stage to the next as certain social and economic forces act upon the birth and death rates. • Britain's population is ageing. As people live longer and birth rates continue to fall, the country is becoming top heavy. • The pyramid can be used to visualise the age of a particular population. • Population pyramids and the DTM are linked. Pyramids with wide bases and narrow tops are LIC, as the bases narrow and the tops widen countries develop. • Overpopulation places pressure on the food and water supply, leading to higher prices and the risk of starvation for some. More and 	
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	<p>easier to build on.</p> <ul style="list-style-type: none"> • Space to expand a site encourages industrial and residential development. • Greenspace is good for leisure and recreation. 	<p>scaling method, measuring either positive or negative response to a statement.</p> <ul style="list-style-type: none"> • Environmental quality can be measured without any instruments using the Likert scale. • Biased sampling methods exaggerate results leading to less reliable data and less valid conclusions. • Systematic data collection removes the bias making data more reliable and conclusions more valid. 	<p>river bed and banks</p> <ul style="list-style-type: none"> • Abrasion is when material in the river wears away the river bed and banks, like a sandpaper effect • Attrition is when material that is being carried in the water hit each other and erode each other • Solution is when material is dissolved by the river water. This usually certain types of rock. • Deposition is when the river loses energy and drops material it is carrying • Transportation is the process of material (e.g. rocks) being carried by the water from one place to another. • Traction is heavier material being rolled along the river bed. • Saltation is material being bounced along the river bed. • Suspension is finer material being suspended and carried by the river. • Solution is material being dissolved and carried by the river. • The upper course of a river is typically high, steep land with 	<p>rise and areas to flood.</p> <ul style="list-style-type: none"> • Some areas will become arid due to drought impacting on species and farming. • Seas are warming, affecting marine ecosystems. • Penguins (chinstrap/emperor), leopard seals, humpback whales, krill all live in Antarctica. • People and sensitive ecosystems are at immediate threat from climate change in Bangladesh. • Mitigation is tackling climate change from the source and reducing greenhouse gases. • Adaptation is changing the way we live to cope with changing climates. • International agreements, afforestation and alternative energies are forms of mitigation. • Flood barriers, drought resistant crops and water management are forms of adaptation. • Glacial periods are cold and inter-glacial 	<p>more forest land is being cleared for housing, fuel and roads, leading to environmental concerns.</p> <ul style="list-style-type: none"> • At present around 2/3s of all hospital beds are taken by those aged 65+. • Over the next 20 years waiting times in hospitals and local doctor surgeries are predicted to increase. • The state gives everyone a pension over the age of 65 (however a recent change means that if you are not 65 by 2028, then you will retire at 67). This again puts a strain on government taxes and with more people living longer • The tax on today's economically active is likely to increase. • An international migrant is someone who moves from one country to another to live. • Push factors encourage people to leave an area e.g. drought. • Pull factors encourage people to 	
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			<p>characteristic features such as waterfalls and v-shaped valleys.</p> <ul style="list-style-type: none"> • A waterfall is an erosional feature of the upper course • The river undercuts the harder rock via the processes of erosion. • This leaves an overhang which becomes unsupported and collapses into the plunge pool below. • After the overhang falls, some of the rocks are swirled around by the river and this helps to form a deep plunge pool below the waterfall. The plunge pool is also deepened during times of high discharge when hydraulic action is most powerful. • Bed load is taken from the plunge pool downstream via the processes of transportation. • The waterfall has retreated, the process continues and a steep-sided gorge is therefore created. • The middle course of a river typically has a gentler gradient with 	<p>periods are warm.</p> <ul style="list-style-type: none"> • The earth's climate record can be evidenced through paintings, diaries, tree rings, ice cores, sea ice thickness. • Climate change refers to long-term shifts in temperatures and weather patterns. • The earth's climate history has changed over time due to natural factors. • Sunspots are areas of the sun that release more solar radiation, leading to global warming. They work in 11-year cycles. • Volcanic eruptions block solar radiation and lead to global cooling. • Milankovitch cycles show the earth changes orbit around the sun every 96,000 years. A closer orbit leads to global warming. • Climate change is affecting the earth. • Most impacts are negative and outweigh any positives. • Climate change will cause sea levels to rise and areas to flood. 	<p>move into an area e.g. jobs.</p> <ul style="list-style-type: none"> • 1 million legal immigrants arrive in the USA every year. • 23% of all immigrants to the USA are from Mexico. • An economic cause of this migration may well be that the average monthly salary for a Mexican worker employed in the United States at the end of 2016 was \$1,870. In comparison, the average wage in Mexico was six times lower, at \$291 a month. • Around 1,000,000 people a year are caught by the United States Border Patrol trying to cross the border. Many of these are repeat offenders. • The USA government spends more money on education and healthcare than Mexico's government. • Since Poland joined the European Union in 2004, and thus Polish people had a 	
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			<p>characteristic features such as meanders and ox-bow lakes.</p> <ul style="list-style-type: none"> • The river now is wider and deeper and has more energy • A meander is a bend in the river • The force of the water erodes laterally and undercuts the river bank on the outside of the bend where water flow has most energy due to decreased friction. This will form a river cliff. • On the inside of the bend, where the river flow is slower, material is deposited, as there is more friction. This will form a slip-off slope. • Over time the horseshoe becomes tighter, until the ends become very close together. • Eventually, the meander will become cut off from the main channel due to erosion and deposition. This creates an oxbow lake. • The lower course of a river is typically low-lying, flat land with characteristic 	<ul style="list-style-type: none"> • Some areas will become arid due to drought impacting on species and farming. • Seas are warming, affecting marine ecosystems. • Penguins (chinstrap/emperor), leopard seals, humpback whales, krill all live in Antarctica. • People and sensitive ecosystems are at immediate threat from climate change in Bangladesh. • Mitigation is tackling climate change from the source and reducing greenhouse gases. • Adaptation is changing the way we live to cope with changing climates. • International agreements, afforestation and alternative energies are forms of mitigation. • Flood barriers, drought resistant crops and water management are forms of adaptation. • Graphs are analysed by looking if there are any trends, sudden rises or falls, 	<p>legal right to come and live and work in the UK, over 800,000 people have made the move from Poland to the UK.</p> <ul style="list-style-type: none"> • The UK has a large Polish community. This has helped reinvigorate high streets across the UK, with Polish shops and restaurants opening all over which strengthen trade links with the source country, Poland. • Following the Brexit vote in 2016, reported racially aggravated offences increased significantly. There was a 57% increase across the nation in hate crimes, as reported by the National Police Chiefs' Council (NPCC). • The far-right British National Party (BNP) had expressed anti-Polish sentiments in their political campaigns during 2009 and campaigned for a ban on all Polish migrant workers to Britain. 	
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			<p>features such as floodplains and levees.</p> <ul style="list-style-type: none"> • A floodplain is an area of land which is covered in water when a river bursts its banks. • The floodplain is often a wide, flat area created by meanders shifting along the valley. • Over time, the height of the floodplain increases as material is continually deposited during flood events. • Natural levees are embankments which form after a river floods and recedes. • When the river floods, the largest material is deposited first on the sides of the river banks and smaller material further away. • After many floods, the sediment builds up to increase the height of the river banks, meaning that the channel can carry more water (a greater discharge) and flooding is less likely to occur in the future. • Flooding occurs when a river bursts its banks. 	<p>repeating patterns, or places where lines cross each other. Use Trend, evidence, anomaly (TEA). Calculate the range or give data to support your answer.</p>	<ul style="list-style-type: none"> • Since June 2016, following Brexit, the number of Polish people living in the UK has decreased from approx. 1 million in 2016 to 815,000 by 2020. • Distribution refers to the way something is spread out or arranged over an area. It may be even, uneven, clustered, linear. It is useful to use compass direction and place names to locate places to track events on map. • A population pyramid (age structure diagram) or "age-sex pyramid" is a graphical illustration of the distribution of a population (typically that of a country or region of the world) by age groups and sex • It typically takes the shape of a pyramid when the population is growing. • Males are usually shown on the left and females on the right • They may be measured in absolute 	
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			<ul style="list-style-type: none">• Natural factors such as heavy and prolonged rainfall, snowmelt, relief, vegetation and geology can increase flood risk.• Human factors such as urbanisation, deforestation and poor river management can increase flood risk.• Bankfull discharge is the maximum amount of water that a particular river is capable of carrying before it floods.• River flooding and flood risk can be managed through various strategies.• Hard engineering strategies are man-made artificial structures to control the flow of water.• Soft engineering strategies work with the natural processes of the river to reduce the effects of flooding.• Dams (huge walls) are built across rivers, usually in the upper course. A reservoir (man-made lake) is formed behind.• Reservoirs store water, especially in		numbers or as a percentage of the total population.	
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			<p>times of prolonged or heavy rainfall, which reduces the risk of flooding. They are very expensive.</p> <ul style="list-style-type: none">• Straightening the river speeds up the water so high volumes of water can pass through an area quickly. Dredging makes the river deeper so it can hold more water.• Raising the banks of a river means that it can hold more water.• Floodplain zoning is planning the land use of floodplains so that less valuable land is allowed to flood.• Planting trees in the drainage basin increases interception. The amount of surface run-off is reduced which reduces flood risk.• Many areas along the River Severn have high flood risk.• A major flood event occurred in February and March 2020.• The main affected areas were Shrewsbury and Worcestershire.• The area was already waterlogged due to			
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			<p>storm events and persistent flooding since October 2019.</p> <ul style="list-style-type: none">• Wettest February on record with over 200mm of rain. A month's worth of rain happened in 24 hours.• 3 Storms (Ciara, Dennis and Jorge) hit the UK in a 4-week period.• There were many severe flood warnings.• Social impacts include 3 deaths, 400 homes flooded and evacuations.• Economic impacts include £225m in damage, reduced housing value, farmland damaged and tourists deterred from visiting the area.• Environmental impacts include a lot of nutrients in the river being washed away, affecting the river ecosystem, particularly salmon and trout populations.• Images are interpreted by splitting the image into background, middle ground and foreground so that			
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			<p>features can be easily recognised and identified.</p> <ul style="list-style-type: none"> • Distribution refers to the way something is spread out or arranged over an area. It may be even, uneven, clustered, linear. It may be useful to use compass direction, scale and place names. 			
<p>Disciplinary Knowledge (Know How...)</p>	<ul style="list-style-type: none"> • Places are named and located on maps. • An 8-point compass rose can show direction. • Places are located using longitude and latitude. • OS maps or satellite images are used to describe land uses. 	<ul style="list-style-type: none"> • Their local area has social, economic and environmental opportunities and challenges. • Economic well-being and/or social well-being is important and how to justify a response. • Study sites can be represented via field sketches and annotation. • Information from images is interpreted. • Numerical or graphical data is described using the TEA technique. • Features of the local area are measured and located using scale, 4 and 6 figure grid references. • Fieldwork investigations are undertaken. • Data collection techniques impact results. 	<ul style="list-style-type: none"> • Rivers begin and end • The water cycle is part of the river system • The drainage basin system works • Rivers change over time and from source to mouth • Each course of a river is different and why • Processes of erosion and deposition work to change a river and create different features • The upper course is characterised • The main river processes work together to create waterfalls and v-shaped valleys • The middle course is characterised • The main river processes work together to create meanders and ox-bow lakes 	<ul style="list-style-type: none"> • The enhanced greenhouse effect changes climates over time. • Climate change is affecting the world's human geography. • Humans and nature are inextricably linked. • People, societies and governments respond to climate change in a variety of ways. • Paintings, diaries, tree rings, ice cores and sea ice thickness evidence climate change. • Sun spots, volcanic eruptions and Milankovitch cycles affect the earth's climate over time. • Climate change is affecting the world's physical geography. • Humans and nature are inextricably linked. 	<ul style="list-style-type: none"> • Places are categorised as sparsely or densely populated. • The demographic transition model shows how countries develop over time. • The demographic transition model is limited in its application. • To draw and interpret population pyramids. • Overpopulation can impact people and the environment. • Ageing populations bring opportunities and challenges. • Migration is caused by push and pull factors • Migration affects host and source countries. • Migration brings both opportunities and challenges to host countries. • Distributions, places 	

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		<ul style="list-style-type: none"> • Research driven decisions are made about how the school environment is treated and respected by members of CANM. 	<ul style="list-style-type: none"> • The lower course is characterised • The main river processes work together to create floodplains and levees • To carry out virtual fieldwork to investigate a river from source to mouth • Flooding occurs due to natural and human factors • A flood hydrograph can be created and used to analyse flood events • Flooding can be managed using hard and soft engineering strategies. • The River Severn flooded • The River Severn affects people, the economy and the environment • Flooding of the River Severn is being managed. • Flood risk of the River Severn could be managed better. • Images are interpreted. • Distributions, places and journeys are described on maps. 	<ul style="list-style-type: none"> • Graphs are analysed. 	<p>and journeys are described on maps.</p> <ul style="list-style-type: none"> • To draw and interpret population pyramids. 	
Key Concepts	Atlas and ordnance survey map skills	Understanding the local area image, map and graph interpretation and fieldwork skills	River processes, landforms and human interactions	Causes, effects and responses to Climate Change	Issues of continued world population change	
Assessment	Mid-point and end of unit	Mid-point and end of unit	Mid-point and end of	Mid-point and end of	Mid-point and end of	

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	assessment	assessment	unit assessment	unit assessment	unit assessment	
Homework	<p>Revision - test on UK Geography.</p> <p>Design an old-style treasure map for display. Include a title, compass rose, scale and a key.</p> <p>Write 2 pages of notes for the mid -point and end of unit assessments.</p> <p>Write a report about any country in the world. Include a map, the culture, industry, ecosystems and any urban landmarks.</p>	<p>Complete the Local Area homework on the worksheet. This can be completed in person (with parents/carers permission) or virtually (using Google Maps). 'Describe where is your nearest'.</p> <p>Write 2 pages of notes for the mid -point and end of unit assessments.</p> <p>Complete the environmental survey for your street and write the project in the same way as we did the</p>	<p>Comprehension worksheet</p> <p>Write 2 pages of notes for the mid -point and end of unit assessments.</p> <p>Write a project about any river in the world. Include a map, river ecosystems, water supplies and flooding</p>	<p>Research and describe the Halley Antarctic Station and explain what it does.</p> <p>Write 2 pages of notes for the mid -point and end of unit assessments.</p> <p>Antarctica project.</p>	<p>Write a report describing how world population has changed over time and how it is predicted to change in the future.</p> <p>Write 2 pages of notes for the mid -point and end of unit assessments.</p> <p>Explain the causes and impacts of migration from any source to host country (not USA to Mexico)</p>	
Wider reading	<p>Ordnance Survey Maps – map reading skills beginners guide https://getoutside.ordnancesurvey.co.uk/guides/beginners-guides-map-reading/ Ordnance Survey Puzzle Book' - Ordnance Survey</p>	<p>Progress in Geography Fieldwork: Key Stage 3 Paperback – 25 Sept. 2020</p> <p>by Hayley Peacock</p>	<p>Common Entrance / KS3 Geography – Rivers, Erosion & Flooding by Simon Lewis</p>	<p>'Climate Change' - Charles by Prince of Wales</p> <p>Introduction to Modern Climate Change Paperback – 22 Oct. 2015</p> <p>by Andrew Dessler</p>	<p>The atlas of human migration by Russell King</p>	
How to help at home	<ul style="list-style-type: none"> - Ensure your child completes all homework and revises prior to assessments. <ul style="list-style-type: none"> - Key websites: <ul style="list-style-type: none"> - https://www.bbc.co.uk/bitesize - https://www.nationalgeographic.com/ - https://www.natgeokids.com/uk/category/discover/geography/ - https://www.coolgeography.co.uk/ - https://world-geography-games.com/ 					