|  |  |  |  |
| --- | --- | --- | --- |
| **PHYSICAL**  **Describe the formation of a pyramidal peak.**   * Snow collects in north facing hollows * Compacts/compresses to form ice * Uneven equilibrium reaches * Gravity pulls glacier downhill * Plucking and Abrasion widen and deepen hollow * Frost Shattering occurs on back wall to make it jagged * Sometimes after ice age a corrie lochan is left behind | | **PHYSICAL**  **Describe the formation of a U Shaped Valley.**   * Starts off a v shaped * Valley has interlocking spurs – river fits valley * Valley glacier moves out of corrie and starts to make its way down hill by gravity * The glacier acts as a bulldozer, removing all debris * Once ice age has gone, truncated spurs are left * Misfit stream now sits in the U shaped valley | |
| **PHYSICAL**  **Describe the formation of a Drumlin.**   * All the material the glacier carries will eventually be dropped * This happens once the land starts to level out and the glacier cannot move anymore * It dumps all of its load as it loses its power * This dumped material is usually all dumped at once and rounded over by the glacier * Drumlins have a lee and a stoss side | | **PHYSICAL**  **Describe the formation of a tombolo** | |
| * Longshore Drift occurs * Moves material along the beach * Once the headland changes direction the sand does not, this forms a spit * Sometimes a salt marsh can form behind the spit * If the spit joins land it is called a bar * If the spit joins and island it’s called a tombolo |  |
| **PHYSICAL**  **Describe the formation of Terminal Moraine.**   * As the glacier bulldozes downhill by gravity it picks up debris * This debris can be found at the snout of the glacier * Once the ice has melted this mound of moraine can stay leaving a hill on the valley floor * Shows the furthest point the glacier has travelled | | **PHYSICAL**  **Describe the formation of a stump.** | |
| * Headland has faultlines * Fault lines eroded by 3 processes of erosion, haudralic action, corrasion, corrosion * Destructive waves form other features due to the tide * Cave, arch, stack, stump |  |
| **PHYSICAL**  **Describe the key features of a Gley soil** | | **PHYSICAL**  **Describe the key features of a Podzol soil** | |
| * Poorly drained * Periodic or permanent waterlogging * Lack of oxygen in pore space so anaerobic conditions * Well defined profile layers * Gleying and orange/yellow coloured mottling in sub-soil * Horizons generally rich in organic matter – Mor humus |  | * Extensive group of leached, acidic soils * Free draining * Well defined layers * Coniferous woodland/ heather moorland * Litter low in nutrients * Little biological activity e.g. earthworms * Mor humus |  |
|  | |  | |
| **PHYSICAL**  **Describe the key features of a Brown Earth soil**   * Free draining * Well mixed undefined layers * Deciduous woodland * Litter rich in nutrients * Intense biological activity e.g. earthworms * Mull humus | | **PHYSICAL**  **Name the soil forming factors**   * Climate * biota * Relief * Parent material * Time | |
| **PHYSICAL**  **Describe the formation of a bay.**   * Forms when a variety of different types of rock can be found * The hard rock erodes slower * Soft rock erodes quicker * Where hard rock is at either side of softer rock the softer rock erodes in the way leaving a bay | | **PHYSICAL**  **Describe the formation of a wave cut platform.**   * High tide and low tide on a cliff face mean the waves erode the cliff into a notch * The notch eventually becomes too far into cliff * Cliff becomes unstable and cracks into the sea * The gradual lift out of the water is the wave cut platform | |
| **PHYSICAL**  **Name the key stages in the formation of a glacier.**   * 1. Snow collects in North/East facing hollows * 2. The weight of lots of snow compresses air out of it making a neve layer (half ice half snow) * 3. The melting and refreezing that can occurs leaves areas partly ice (firn) * 4. Eventually the weight of the snow pushes all the air out and it becomes solid ice. | | **PHYSICAL**  **Describe plucking, abrasion and frost shattering**   * Plucking is when ice freezes onto sides and back walls and as glacier moves by gravity the ice sticks to the rocks and pulls parts of the rock out * Abrasion occurs when rocks are trapped under the glacier and the weight of the glacier makes the rock rub against the valley/corrie floor, as the glacier moves it scars and erodes the landscape. Sometimes once the ice has melted striations can be seen. * Frost shattering or freeze thaw can occur when water gets into cracks in the rocks, usually sitting above the glacier, at night when temperatures drop below freezing the water turns to ice and expands by 9% causing the rocks to be forced apart, this is a repeated process which loosens rocks and leave a jagged surface. | |
| **PHYSICAL**  **Describe the formation of an Esker.**   * Lower down the valley where the ice can start to melt under glacier rivers can occur * These rivers carry all the material used for abrasion with them * Once the ice melts, mounds of this material can be piled in a snake like formation along the valley. | | **PHYSICAL**  **Explain the 4 erosion processes of a coast line**   * Hydraulic Action – force of the water breaking down valley or cliffs * Corrasion – Force of water with rocks being thrown against cliffs or banks and bed of rivers * Corrosion – chemicals in the water eroding rocks * Attrition – rocks hitting against each other breaking down | |
| **PHYSICAL**  **Explain the cell model**   * Surplus equator * Deficit poles * Cell model takes heat from equator to the poles * Explain each cell – Hadley Cell, Ferrell Cell, Polar Cell | | **PHYSICAL**  **Describe and explain the North Atlantic Gyre**   * Ocean currents – Gulf Stream, North Atlantic Drift, Canaries Current and North Equatorial Current * Coriolis Effect * Trade winds * Land masses | |
| **PHYSICAL**  **Explain the ITCZ** | | **PHYSICAL**  **Explain the heat budget** | |
| * Tropical Continental air mass, from Sahara Desert dry hot stable (Harmattan Winds) * Tropical Maritime from Gulf of Guinea, wet hot unstable storms * Where the 2 air masses meet, brings rain * Sun directly overhead in July * Not as far overhead in January * ITCZ moves with the sun * Thermal Equator |  | * 100% of the sun’s energy reaches the earth’s atmosphere * 19% is absorbed by clouds * 6% is reflected by the earth’s outer atmosphere * 20% is reflected by clouds, gases and dust back into space * 4% is reflected by the earth’s surface due to high albedo * 51% is absorbed by the earth’s surface | . |
| **PHYSICAL**  **From a map how could you tell and area is Glaciated**   * Bare rock symbols * Scree * Mix of different contours * Horse-shoe shaped contour lines * U shaped valley * Misfit stream | | **PHYSICAL**  **Name the different types of moraine**   * Englacial * Lateral * Medial * Sub glacial * Terminal | |
|  | | **PHYSICAL**  **Explain things that can change the Hydrological Cycle**  For deforestation:  The cutting down of trees increases run-off and the potential for soil erosion.  Decreases in evapo-transpiration and therefore cloud formation impacts on local rainfall patterns.  Changes to vegetation cover can lead to more extreme river flows as water is not intercepted and stored by the trees.  For irrigation:  Taking water from a river or ground water storage can reduce river flow.  Lowering water tables and increasing evaporation/evapo-transpiration by placing water in surface stores, e.g. ditches/canals.  Increased farming opportunities provided by irrigating crops removes water from the hydrological cycle as the crops grow.  For urbanisation:  Removal of natural vegetation can speed up overland flow and can lead to higher river levels.  As more urban land is concreted over the rate of evaporation from these surfaces increases as the rate of percolation through the land surface decreases.  For mining:  The silting up of lakes, rivers and reservoirs leads to reduced storage capacity in these areas.  Mining may also lead to reduced vegetation cover leading to increased run-off  Other Human Activities  Large amounts of water vapour are released into the atmosphere from industrial process which increases cloud formation altering the hydrological cycle.  Soil compaction (mainly due to agriculture) creates an impermeable surface which increases run-off and reduces infiltration into underground storages. | |
| **PHYSICAL**  **Name the stages in the Hydrological Cycle**   * Evaporation * Transpiration * Precipitation * Condensation * Advection * Sublimation * Water table * Infiltration * Percolation * Interception * Ground water flow * Through flow * Storage | | **PHYSICAL**  **Name the features of a flood hydrograph** | |
| **HUMAN**  **Why count the population of a country?**   * To plan for services i.e. schools hospitals * To know the location of people in order to build houses * To know the age of population to be able to provide pensions, benefits * To gather the number of people in employment * Grasp the religious aspects to provide enough services | | **HUMAN**  **Why do some places have problems counting the people? Give examples** | |
| * Large numbers of migrants, eg the Tuareg or Fulani in West Africa * shifting cultivators of the Amazon, may lead to people being missed or counted twice * Countries with large numbers of homeless people or large numbers of rural migrants living in shanty towns, eg Makoko in Lagos * Poor communication links and difficult terrain, eg in the Amazon Rainforest, may make it difficult for enumerators to reach isolated villages * The variety of languages spoken in many countries (eg over 500 in Nigeria) * The considerable costs involved in printing, training enumerators, distributing forms and analysing the results * In countries with high levels of illiteracy, mistakes may be made and more enumerators will be needed to help * People may be suspicious of why the census is being conducted, and may lie. |  |
| **HUMAN**  **Describe key features of an EMDC’s population pyramid**   * Too many old people * High dependency ratio * Falling birth rate * Tall for longer life expectancy * Roughly the same width from bottom to top | | **HUMAN**  **Describe key features of an ELDC’s population pyramid**   * Triangle shape * Broad base to symbolize high birth rate * High death rates so slopes away quickly * Shorter pyramid for shorter life expectancy | |
| **HUMAN**  **Explain the changes for an EMDC’s population pyramid**   * Too many old people * Not enough young people * People leave looking for a better life * People choose to have less children * Women work | | **HUMAN**  **Explain the changes for an ELDC’s population pyramid**   * Continuing wider base as more children survive * Taller as people live longer * Will start to become more shaped like the EMDC population pyramid as people live until old age * Migration/Disease could cause some uneven areas | |
| **HUMAN**  **Describe the benefits/problems that might occur for an aging population**   * Too many old people * Increase in retirement age * Not enough young people so less money spend on education * People leave looking for a better life * Cost of having children rise * People choose to have less children as women work * Drugs and prescriptions to diseases related to the elderly increases * More money spent on elderly care * Incentives given to have more children | | **HUMAN**  **Describe the benefits/problems that might occur for an rapidly growing population**   * Sudan and Malawi there are not enough doctors and nurses so people cannot get seen at hospitals and may die early. * Many doctors and nurses move abroad for higher wages. * There are not enough health centers and hospitals so people are not able to be seen if they are ill or live in remote areas. * Living conditions can be poor as the government doesn’t have enough money to build houses, this can lead to the spread of diseases such as cholera. * There can be a lack of clean water and adequate food as the government cannot keep up with the rise in population. * There is no government pensions for most elderly people who cannot afford to look after themselves. * Schools often lack teachers as there isn’t enough money to train them and class sizes are therefore very big which can reduce literacy rates. | |
| **HUMAN**  **Name some of the pull/push factors for the Polish/UK migration**   * **PUSH** Poor economy and lack of jobs * Not as good schooling and healthcare * Traditional culture – young people can find it repressive * **PULL** Chance to earn more money * No visa required to go to UK * Better services such as health care and schools * Learn/improve English * Lots of freedom for young people/adventure | | **HUMAN**  **Effects of Syria migration**   * Lebanon pressure on jobs and services * Overcrowded refugee services * Not enough medical provision/ doctors to look after refugees * Lack of education for the children * Countries who take refugees do not have enough money to support them * Lost livelihood, who is left to rebuild Syria once troubles are over? | |
| **HUMAN**  **Name some advantages/disadvantages for the UK in receiving people from Poland**  Positive   * Poles fill jobs many UK citizens do not want to do (veg picking) * They contribute to the economy through taxation * They contribute to a multi-cultural society * Poles are well known for their work ethic and the majority work hard   Negative   * Some money is sent back to Poland and is not spent in UK * Racism from locals and clashes with locals due to cultural differences * Language barriers put a strain on school and health services * Some laws and habits are different in UK so Police have more work (drink driving) | | **HUMAN**  **Name some advantages/disadvantages for Poland in losing people from their country**  Positive   * Money is sent home to relatives, boosting Polish economy * Polish food and drink companies sell their products in UK * If emigrants return they bring back useful skills and open their own businesses * Women pursue careers previously filled by men (fire service)   Negative   * Not enough people to fill jobs * Services suffer (women are forced to do jobs normally done by men) * companies cannot stay open with a lack of workers * Many educated people leave in search of higher wages (brain drain) * Health system cannot employ enough doctors and nurses | |
| **HUMAN**  **For the Dorset Coast describe the economic opportunities the landscape beings**   * Tourism (16 million visitors 38,000 jobs) * Coastal features (Old Harry, Durdle Door) * Fossils * SSSI’s, Farming * Walking * Windsurfing * Historic Sites * Ferries Oil fields (Wytch Farm) Quarrying (Purbeck marble) | | **HUMAN**  **For the Loch Lomond describe the economic opportunities the landscape beings**   * Loch Katrine – water supply * Loch Lomond – Water Sports * Ben Lomond – West Highland way * Queen Elizabeth Forest – Commercial Woodland * Golf Course | |
| **HUMAN**  **Explain some of the land use conflicts in Dorset**   * Lulworth Cove (Ministry of Defence, locals, honeypot, tourists, environmentalists, farmers, footpath erosion) * Poole Harbour (Use of it, speed boats, ferries, Wytch Farm, Quarrying portland) * Studland Bay (Cars parked, honeypot) | | **HUMAN**  **Explain some of the land use conflicts in Loch Lomond**   * Camping bye laws on east Loch Lomond * Speeding on the loch * Shore erosion | |
| **HUMAN**  **Name some of the solutions to land use conflicts in Dorset**   * Poole Harbour zoning * Quarrying – limited times * Studland – carparks visitir centers boardwalks | | **HUMAN**  **Name some of the solutions to land use conflicts in Loch Lomond**   * Camping ban between April-Oct * Operation Ironworks * Rangers educating * Speed limits on loch to limit erosion/make safe * Registration of boats | |
| **HUMAN**  **Explain the causes of desertification**   * Population increase * Over-cultivation * Over-grazing * Irrigation * Deforestation * Nomadic Lifestyle changes * Tourism * War and Politics * Changes in Weather and Climate | | **HUMAN**  **Explain the solutions to desertification**   * Re-afforestation * Great Green Wall * Replacement fuel sources * Dune Stabilisation * Shelter belts * Animal Fences * Gully Damming and repair * Diguettes * Terracing * Fertilisation * Irrigation * Crop rotation * GM Crops | |
| **HUMAN**  **Explain why Dundee grew as a city**   * Dundee grew up on the north bank of the Tay on the east coast of Scotland. Because of its south-facing aspect, it is considered to be the sunniest city in Scotland. * River created jobs, ship building * World’s largest producer of Jute | | **HUMAN**  **Name some changes that have taken place in Dundee in relation to the Waterfront Project**   * Whole project designed to reconnect River Tay with central Dundee * Changing rail station * Central Waterfront * Seabreas * Riverside * Dundee Port * City Quay | |
| **HUMAN**  **Name some changes that have taken place in Dundee in relation to the transport**   * Park and Ride along the ring roads (West Bell Street 930 spaces) * Car sharing website * Upgrading of busses to include wifi and lower entry for buggies * Walking routes updated annually * Cycle routes now well-lit and safer * Whole new train station * Airport upgraded to allow for more flights | | **HUMAN**  **Name some changes that have taken place in Dundee in relation to the housing**   * Ardler & Whitfield upgraded from scarne housing into houses with gardens * Flats knocked down as didn’t work and were not safe * Communal areas well lit and council responsible for upgrading of common areas * Involvement of the community to help with regeneration meant they got what they wanted and meant a desirable place to live * Cost of housing rises area becomes popular | |
| **HUMAN**  **Name some changes that have taken place in Manila in relation to the housing**   * Basecco large slum built on reclaimed land * Low load bearing capacity making it hard to build on * Attractive area for workers as on coast * Habitat for Humanity housing funded through donations from the charity and requires very little materials * Light weight steel frame assembled on site * Low skilled in order to build as community help * Gawad Kalinga housing part paid for by government and private companies, bright coloured houses with no interior walls/doors so people can choose their own * Both paid for in ‘Sweat Equity’ | | **HUMAN**  **Name some changes that have taken place in Manila in relation to the transport**   * eJeepney (electric, stop air pollution) * Cleaning of Pasig River to allow for river boats to help with transport * Tricycles * Skyway to elevate transport to stop problems | |
| **GLOBAL ISSUES**  **Give some examples of economic and social indicators that show how developed a country is**   * GDP - The value of goods and services produced in a country in a year divided by its total population * GNP - The value of goods and services produced and sold both at home and abroad divided by its total population. * Industrialisation - % of people involved in agriculture/average consumption of energy * Food Intake - Calorie intake/average amount of meat consumed per day * Education - % of children at school/rates of staying on at school/no’s graduating from college(uni) * Health - No. of people per doc/hospital/infant mortality/life expectancy * Population - Birth/death rates/ natural increase * Mechanisation - % of population access to clean drinking water/ % of population connected to sewage system * Disposable income - No. of cars per 1000 population/average expense on clothing | | **GLOBAL ISSUES**  **Explain, with named examples, why some countries develop faster than others.**   * Lack of resources – Sudan * Subsistence farming – Bhutan * Difficult to farm – Mongolia * Expensive heating – Greenland * No rain, crop failure – Mali * Difficult to build on – Nepal * Flooding – Bangladesh * Natural Disasters – Ecuador * Disease – Ghana * Population - China * Civil War – Syria * Owe lots of money – Zambia * Primary industries – Indonesia | |
| **GLOBAL ISSUES**  **Explain how you make development indicators more reliable.**  Composite Indicators:   * Physical Quality of Life Indicators (PQLI) * Adult Literacy (Good indicator of the level of education within a country) * Life Expectancy (Indication of health care and nutrition within the population) * Infant Mortality (Access to sanitation and health care facilities) * Human Development Index (HDI) * Life expectancy (Health care facilities and quality of life) * Average number of years schooling (Education levels) * GDP per capita as PPP$ (Purchasing Power Parity Dollars. Money per person and what $1 will buy you in that country) | | **GLOBAL ISSUES**  **Explain why individual development indicators can be unreliable.**  Some statistics will be difficult to obtain unreliable figures e.g. Spending on clothing, calorie intake.  Some countries do not collect accurate data due to language barriers and unregistered homes. E.g. shanty towns in Brazil.  The spending priorities of a country might make the country excel from one aspect (health care) and no spending on others.  Most development indicators are crude averages, this means that differences in the country are not noticed. E.g one region might be really poor but the rest rich so on average the country looks richer.  GDP and GNP can be unreliable as farming in poorer countries can be produced to be sold internally so that industry would not be counted in trade value.  Communist countries might not participate fully in trade.  These indicators do not give an indication on the quality of life in the country. E.g. might be richer but have limited human rights or no freedom of speech. | |
| **GLOBAL ISSUES**  **Explain Mali’s Primary Healthcare Strategy**   * Initiative Accse – Segou Mali * Decentralise healthcare by barefoot doctors * Have new opening times and clean buildings * Strengthen Health Insurance Schemes by covering 75% of costs (100% for births) * Micro loans for womens savings groups to make money * Giving money to farmers to plant specific crops | | **GLOBAL ISSUES**  **Explain the physical and human causes of Malaria**   | **Physical** | **Human** | | --- | --- | | Temperatures must be between **15-40°C** | Houses create areas of **shade** for the mosquitoes to rest | | The presence of the **female** anopheles mosquito | Global air travel contributes to the spread – **'airport malaria'** | | **Humidity** of 60% plus | Settlements provide **large populations** for blood meal | | **Stagnant water**, e.g. paddy field needed to lay larvae | **Poor sanitation** in shanty towns can contribute to areas of stagnant water | | |
| **GLOBAL ISSUES**  **Describe some of the methods used to mitigate Malaria**   * Spray pesticides e.g. DDT * Breeding genetically modified sterile mosquitos * Mosquito traps which let off CO2 to mimic humans/animals * Placing BTI coconuts in stagnant waters so the larvae eat the bacteria and die before they become grown * Place larvae eating fish into stagnant ponds * Draining Stagnant ponds * Planting eucalyptus trees which soaks up moisture stopping areas of stagnant waters * Covering stagnant water * Incecticide coated mosquito nets * Drugs like Quinine to kill parasite * Atremisia combined therapy – reacts with the iron in the parasite before it can adapt | | **GLOBAL ISSUES**  **How successful are some of the methods used to mitigate malaria**   * Mosquitos become resistant to DDT * DDT was banned as it damaged wildlife * CO2 traps only effective at a small scale * BTI coconuts very effective and 2/3 coconuts can leave a pond clear for 45 days * Draining stagnant pools can be effective but areas with heavy rain struggle to maintain it * Mosquito nets very effective as they are under them at night when mosquitos are at their most active * Drugs are only effective in the short term as the mosquito adapts * Drugs are also too expensive for developing countries | |
| **GLOBAL ISSUES**  **Australia use coal as a main energy source, name the advantages and disadvantages of using coal**  Advantages   * Ready-made fuel. * It is relatively cheap to mine and to convert into energy. * Coal supplies will last longer than oil or gas. * It produces a constant and reliable source of energy   Disadvantages   * When burned coal gives off atmospheric pollutants, including greenhouse gases.   It is also non-renewable, although based on current usage coal will last around another 250 years.   * Coal mining ruins the environment and puts the lives of people especially the coal miners in danger | | **GLOBAL ISSUES**  **Brazil uses hydroelectric power as a main energy source, name the advantages and disadvantages of using hydroelectric power**  Advantages  Very effective in certain locations e.g. Scotland because: There is high rainfall, suitable underlying geology, Hanging valleys  Very efficient Converts 90% of potential energy to electricity. Fossil fuels convert about 50%.  Very cost effective Costs about 1/3 of fossil fuels or nuclear.  Can adjust flow gates depending on the volume of electricity required.  Disadvantages  Migration routes for fish can be blocked.  Increased risk of major flood events if dam bursts.  Countryside is flooded resulting in a loss of habitat  Build-up of silts behind the dam:  Dependent on the correct climate, topography and geology | |
| **GLOBAL ISSUES**  **Alaska use oil as a main energy source, name the advantages and disadvantages of using oil**  Advantages   * Relatively cheap to extract and to convert into energy. * It is one of the most efficient energy sources available. * Power stations can be built almost anywhere due to oil being easy to transport.   Disadvantages   * When burned, it gives off atmospheric pollutants, including greenhouse gases. * Very limited supply with an estimate of roughly 50 years at current consumption rates * Can cause severe damage to the environment, e.g. Exxon Valdez oil tanker spill * Current processes are not able to extract all the potential oil from below ground. | | **GLOBAL ISSUES**  **France uses nuclear fission as an energy source, name the advantages and disadvantages of using nuclear fission**  Advantages  Provides continuous energy source unlike many renewable sources.  The volume of fissionable material is such that it will last for several thousand years.  Energy efficiency – uranium produces about 16,000 times more energy than the equivalent mass of coal.  New technology such as breeder reactors and waste reprocessing are able to reduce nuclear waste and improve efficiency.  Disadvantages  Poor management practices of nuclear power station result in radioactive isotopes being released into the environment, e.g. Dounreay in Scotland.  The risk of a Chernobyl scale event is small yet there have been numerous smaller nuclear incidents such as Fukashima Daiichi.  Spent fuel from Nuclear reactors poses the biggest threat as it needs to be stored correctly as some fuel is radioactive for millions of years | |
| **GLOBAL ISSUES**  **Australia use coal as a main energy source, name the advantages and disadvantages of using coal**  Advantages   * Ready-made fuel. * It is relatively cheap to mine and to convert into energy. * Coal supplies will last longer than oil or gas. * It produces a constant and reliable source of energy   Disadvantages   * When burned coal gives off atmospheric pollutants, including greenhouse gases.   It is also non-renewable, although based on current usage coal will last around another 250 years.  Coal mining ruins the environment and puts the lives of people especially the coal miners in danger | | **GLOBAL ISSUES**  **Alaska use oil as a main energy source, name the advantages and disadvantages of using oil**  Advantages   * Relatively cheap to extract and to convert into energy. * It is one of the most efficient energy sources available. * Power stations can be built almost anywhere due to oil being easy to transport.   Disadvantages   * When burned, it gives off atmospheric pollutants, including greenhouse gases. * Very limited supply with an estimate of roughly 50 years at current consumption rates * Can cause severe damage to the environment, e.g. Exxon Valdez oil tanker spill * Current processes are not able to extract all the potential oil from below ground. | |
| **GLOBAL ISSUES**  **The USA use fracking as a source of energy, name the advantages and disadvantages of using fracking**  Advantages   * It is a relatively cheap form of energy. * It produces roughly 30% less carbon dioxide emissions than coal or oil. * Natural gas provides instant energy and does not need refined. * Can be stored as LNG (liquid natural gas) and used in areas which are not connected to the national grid.   Disadvantages   * When burned, it gives off atmospheric pollutants, including greenhouse gases. * Only about 70 years’ worth of gas supplies left. * Extracting gas can lead to subsidence and collapsing | | **GLOBAL ISSUES**  **France uses nuclear fission as an energy source, name the advantages and disadvantages of using nuclear fission**  Advantages  Provides continuous energy source unlike many renewable sources.  The volume of fissionable material is such that it will last for several thousand years.  Energy efficiency – uranium produces about 16,000 times more energy than the equivalent mass of coal.  New technology such as breeder reactors and waste reprocessing are able to reduce nuclear waste and improve efficiency.  Disadvantages  Poor management practices of nuclear power station result in radioactive isotopes being released into the environment, e.g. Dounreay in Scotland.  The risk of a Chernobyl scale event is small yet there have been numerous smaller nuclear incidents such as Fukashima Daiichi.  Spent fuel from Nuclear reactors poses the biggest threat as it needs to be stored correctly as some fuel is radioactive for millions of years  Nuclear material can be stolen to use in the production on nuclear devices | |
| **GLOBAL ISSUES**  **Brazil uses hydroelectric power as a main energy source, name the advantages and disadvantages of using hydroelectric power**  Advantages  Very effective in certain locations e.g. Scotland because: There is high rainfall, suitable underlying geology, Hanging valleys  Very efficient Converts 90% of potential energy to electricity. Fossil fuels convert about 50%.  Very cost effective Costs about 1/3 of fossil fuels or nuclear.  Can adjust flow gates depending on the volume of electricity required.  Disadvantages  Migration routes for fish can be blocked.  Increased risk of major flood events if dam bursts.  Countryside is flooded resulting in a loss of habitat  Build-up of silts behind the dam:  Dependent on the correct climate, topography and geology | | **GLOBAL ISSUES**  **Denmark uses wind as an energy source, name the advantages and disadvantages of using wind**  Advantages  Once the wind turbine is built the energy it produces does not cause greenhouse gases or other pollutants.  Only a small plot of land. This means that the land below can still be used.  Remote areas that are not connected to the electricity power grid can use wind turbines to produce their own supply  Wind turbines are available in a range of sizes which means a vast range of people and businesses can use them, which is particularly useful in developing countries  Disadvantages  Where they are built on peat bogs it can be up to 15 years before there is a net carbon gain.  Due to the erratic nature of the wind means that it is not overly reliable and requires back-up electricity supply or storage (e.g. hydroelectric pumped storage)  Negative effects on bird populations and migratory routes.  Debated effects on human population. | |
| **GLOBAL ISSUES**  **Kenya uses solar as a main energy source, name the advantages and disadvantages of using solar energy**  Advantages  Solar is very effective where there are long hours of intense sunshine (e.g. in Spain) to power the solar panels.  Solar power can supply energy for personal usage in remote areas through solar water heaters and small PV cells which generate electricity.  Disadvantages  Solar energy can only be harnessed when it is daytime and sunny.  Solar collectors, panels and cells are relatively expensive to manufacture.  Large areas of land are required to capture the suns energy. Collectors are usually arranged together especially when electricity is to be produced and used in the same location. | | **GLOBAL ISSUES**  **Scotland uses tidal as an energy source, name the advantages and disadvantages of using tidal**  Advantages  Has an efficiency of almost 80%, much higher than wind or solar  Due to tides being predictable it can proved a reliable and constant source of energy.  Building dams at sea which would contain tidal turbines could help protect the coastline from erosion and rising sea levels.  Less visual pollution than other forms of renewable energy  Disadvantages  Very restricted to areas which have enough tidal range and speed.  It is very expensive to develop the technology, manufacture the devices and install/operate them.  Tidal power can have effects on marine life. The turbines can accidentally kill swimming sea life with the rotating blades.  Salt water causes corrosion in metal parts. It can be difficult to maintain tidal stream generators due to their size and depth in the water.  Mechanical fluids, such as lubricants, can leak out, which may be harmful to the marine life nearby. | |
| **GLOBAL ISSUES**  **England uses wave power as an energy source, name the advantages and disadvantages of using wave power**  Advantages  Abundant and effective in almost every region of the world.  Many different designs which fit specific uses to make it as efficient as possible  Less visual pollution than solar and wind.  Once installed wave power has relatively low running costs.  Disadvantages  Wave power has the potential to damage sea life through chemical, noise and visual pollution.  Currently very inefficient – harness less than 20% of the available energy.  Wave power is very expensive as it is still in the research and testing phase.  Energy production is subject to the availability of waves. | | **GLOBAL ISSUES**  **In the next few year developing countries are set to overtake developed countries in relation to energy consumption, explain why.**  Residential:  Increased prosperity in developing countries means a rise in standard of living. More people will have access to electrical lighting and electrical equipment in their homes e.g. washing machines, cookers and refrigerators and so energy consumption will increase.  In developed countries people are switching to much more energy efficient devices in the home and using smart meters to monitor energy usage.  Population growth rates are also much steadier or declining so there is no great increase in demand for energy.  Industrial:  A lot of developing countries economic growth is based on manufacturing industries. These use vast amounts of energy whereas in developed countries there is a higher concentration of IT and service industries.  Transport:  In a global economy many of the good manufactured in developing countries need to be transported worldwide which uses a lot of energy. As the prosperity in developing countries increases then car ownership will increase. | |
| **GLOBAL ISSUES**  **Give some key facts on the Global Distribution of Energy Resources**  Coal – USA 25%, Russia 15%, China 14%.  Oil – Russia 13%, Saudi Arabia 12%, USA 10%.  Natural Gas – Russia 20%, USA 19%, Saudi Arabia 10%  Uranium 235 – Australia 31%, Kazakhstan 12%, Russia 9% | | **GLOBAL ISSUES**  **Iceland uses geothermal as an energy source, name the advantages and disadvantages of using geothermal**  Advantages  Very effective in areas with high tectonic activity  Unlike wind power, geothermal power can be relied on as it provides constant power.  Geothermal power can take different forms. For instance, it can be used to produce electricity or the hot water can be used directly to heat homes and businesses.  Disadvantages  Changes below the earth can cause the geothermal productivity of an area to become reduced.  Hazardous materials such as hydrogen sulphide can be released when drilling for the pipes  For major use it is restricted to areas with high tectonic activity. | |
| **GLOBAL ISSUES**  **Sierra Leon uses biomass as an energy source, name the advantages and disadvantages of using biomass**  Advantages  Can provide continuous energy as required by the burning of plant matter.  As carbon dioxide released equals what the plants recently took in, biomass energy does not add new greenhouse gases, and so is more environmentally friendly than burning fossil fuels  Vehicle exhaust fumes are cleaner.  Disadvantages  In developing countries biofuels often become a cash crop which means that land vital for food production is not available  In countries like Brazil rainforest is being cut down to make room for sugar cane  Not particularly energy efficient – 34% less efficient than petrol.  Very difficult to use in cold weather. | | **GLOBAL ISSUES**  **The USA use fracking as a source of energy, name the advantages and disadvantages of using fracking**  Advantages   * It is a relatively cheap form of energy. * It produces roughly 30% less carbon dioxide emissions than coal or oil. * Natural gas provides instant energy and does not need refined. * Can be stored as LNG (liquid natural gas) and used in areas which are not connected to the national grid.   Disadvantages   * When burned, it gives off atmospheric pollutants, including greenhouse gases. * Only about 70 years’ worth of gas supplies left.   Extracting gas can lead to subsidence and collapsing | |
|  | | **GLOBAL ISSUES**  **The USA use fracking as a source of energy, name the advantages and disadvantages of using fracking**  Advantages   * It is a relatively cheap form of energy. * It produces roughly 30% less carbon dioxide emissions than coal or oil. * Natural gas provides instant energy and does not need refined. * Can be stored as LNG (liquid natural gas) and used in areas which are not connected to the national grid.   Disadvantages   * When burned, it gives off atmospheric pollutants, including greenhouse gases. * Only about 70 years’ worth of gas supplies left.   Extracting gas can lead to subsidence and collapsing. | |

**HUMAN GEOGRAPHY UNIT**

Complete these following questions in groups of four. **You must work in silence**. You should write an answer to any question and then pass the paper onto the next person. Continue like this until they have all been completed. If you are unable to answer a question the pass the paper on.

|  |  |
| --- | --- |
| **Question** | **Answer** |
| **Why count the population of a country?** |  |
| **Why do some places have problems counting the people? Give examples** |  |
| **Describe key features of an EMDC’s population pyramid** |  |
| **Describe key features of an ELDC’s population pyramid** |  |
| **Explain the changes for an EMDC’s population pyramid** |  |
| **Explain the changes for an ELDC’s population pyramid** |  |
| **Describe the benefits/problems that might occur for an aging population** |  |
| **Describe the benefits/problems that might occur for a rapidly growing population** |  |
| **Name some of the pull/push factors for the Polish/UK migration** |  |
| **Effects of the Syria Migration** |  |
| **Name some advantages/disadvantages for the UK in receiving people from Poland** |  |
| **Name some advantages/disadvantages for Poland in losing people from their country** |  |
| **For the Dorset Coast describe the economic opportunities the landscape beings** |  |
| **For the Loch Lomond describe the economic opportunities the landscape beings** |  |
| **Explain some of the land use conflicts in Dorset** |  |
| **Explain some of the land use conflicts in Loch Lomond** |  |
| **Name some of the solutions to land use conflicts in Dorset** |  |
| **Name some of the solutions to land use conflicts in Loch Lomond** |  |
| **Explain the causes of desertification** |  |
| **Explain the Solutions to desertification** |  |
| **Explain why Dundee grew as a city** |  |
| **Name some changes that have taken place in Dundee in relation to the Waterfront Project** |  |
| **Name some changes that have taken place in Dundee in relation to the transport** |  |
| **Name some changes that have taken place in Dundee in relation to the housing** |  |
| **Name some changes that have taken place in Manila in relation to the transport** |  |
| **Name some changes that have taken place in Manila in relation to the housing** |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**GLOBAL ISSUES GEOGRAPHY UNIT**

Complete these following questions in groups of four. **You must work in silence**. You should write an answer to any question and then pass the paper onto the next person. Continue like this until they have all been completed. If you are unable to answer a question the pass the paper on.

|  |  |
| --- | --- |
| Question | Answer |
| **Give some examples of economic and social indicators that show how developed a country is** |  |
| **Explain, with named examples, why some countries develop faster than others.** |  |
| **Explain Mali’s Primary Healthcare Strategy** |  |
| **Explain the physical and human causes of Malaria** |  |
| **Describe some of the methods used to mitigate Malaria** |  |
| **How successful are some of the methods used to mitigate malaria** |  |
| **Austria use coal as a main energy source, name the advantages and disadvantages of using coal** |  |
| **Alaska use oil as a main energy source, name the advantages and disadvantages of using oil** |  |
| **The USA use fracking as a source of energy, name the advantages and disadvantages of using fracking** |  |
| **France uses nuclear fission as an energy source, name the advantages and disadvantages of using nuclear fission** |  |
| **Denmark uses wind as an energy source, name the advantages and disadvantages of using wind** |  |
| **Kenya uses solar as a main energy source, name the advantages and disadvantages of using solar energy** |  |
| **Scotland uses tidal as an energy source, name the advantages and disadvantages of using tidal** |  |
| **England uses wave power as an energy source, name the advantages and disadvantages of using wave power** |  |
| **Hydroelectric** |  |
| **Iceland uses geothermal as an energy source, name the advantages and disadvantages of using geothermal** |  |
| **Sierra Leon uses biomass as an energy source, name the advantages and disadvantages of using biomass** |  |
| **In the next few year developing countries are set to overtake developed countries in relation to energy consumption, explain why.** |  |
| **Give some key facts on the Global Distribution of Energy Resources** |  |
|  |  |