Year 8 Geography Knowledge Organiser – Topic Three: Rivers and Flooding



| 1 | Weathering | The breaking down of rocks and materials by nature |
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| 2 | Erosion | The wearing away of the land by a moving force (rivers, waves, wind, glaciers) |
| 3 | Freeze -thaw weathering | Water enters into cracks in rocks and freezes, when it freezes it expands, so weakens the rock when this is repeated over time |
| 4 | Onion skin weathering | Heating and cooling of rocks makes them expand and contract, so surface layers peel off like the skin of an onion |
| 5 | Biological weathering | The action of plants and animals which helps to break down rocks |
| 6 | Chemical weathering | The action of acids in rain water which dissolves rocks such as limestone |
| 7 | Abrasion | Particles of rock in river water rubs against the bed and banks of a river, wearing it away in a sandpaper effect |
| 8 | Attrition | Rocks collide together and break into smaller pieces, this also makes them rounder and smoother |
| 9 | Hydraulic action | The force/power of the water hitting the bed and banks of a river, wearing it away |
| 10 | Corrosion | Weak acids in river water help to dissolve rocks |

| 11 | Transportation | The movement of sediment within a river |
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| 12 | Precipitation | Rain, snow, sleet or hailstones |
| 13 | Transpiration | Moisture which is lost from leaves of plants and trees |
| 14 | Infiltration | Water which filters downwards through soil into the ground |
| 15 | Percolation | Water which filters downwards through rocks into the ground |
| 16 | Throughflow | Water which travels sideways through the soil towards rivers/lakes/the sea |
| 17 | Groundwater flow | Water which travels sideways through the rocks and ground towards rivers/lakes/the sea |
| 18 | Surface run- off | Water which flows over the surface of the land |
| 19 | Hydrological cycle | The continuous circulation of water within the Earth's hydrosphere, and is driven by solar radiation (the sun) |
| 20 | Drainage Basin | The area of land around the river that is drained by the river and its tributaries |

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| 21 | Watershed | An imaginary border around a river basin to show where the river gains its water from |
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| 22 | Source | The start of a river, usually in mountainous regions |
| 23 | Mouth | The end of a river, where it flows into the sea or a lake |
| 24 | Tributary | A smaller stream which joins onto the main river |
| 25 | Channel | The bed and banks of a river. The river water is held within this |
| 26 | Confluence | The place where a tributary (small stream) joins on to the main river |
| 27 | Drainage density | the total length of streams in a drainage basin divided by the area of the basin. Drainage basins characterised by impermeable rock and soils tend to have higher drainage density due to the lack of infiltration and percolation. |
| 28 | V-shaped valleys | The distinctive shape of river valleys, due to vertical erosion |
| 29 | Interlocking spurs | Fingers of land that jut out into the river valley that streams and rivers are forced to flow around in the upper course |
| 30 | Vertical erosion | Downwards erosion of a river. This helps to create v-shaped valleys |

| 31 | Gradient | How steep or gentle a slope is |
|----|----------------------------------|---|
| 32 | Waterfall | A steep drop in the course of a river, usually formed where rivers flow over different rock types. These landforms are usually found in the upper course of a river |
| 33 | Gorge | A steep valley formed either side of a river as a waterfall retreats (moves backwards) upsteam |
| 34 | Lateral erosion | Erosion from side to side – this usually happens in meanders |
| 35 | Floodplain | The area of flat land either side of a river, usually covered in water when a river bursts its banks. This area is usually very fertile due to deposition of river sediment |
| 36 | Meander | Bends in a river, usually found in the middle to lower course |
| 37 | Oxbow lake | The remains of an abandoned river meander (bend) |
| 38 | River beach/slip off slope | An area on the inside of a meander where there is greater deposition |
| 39 | River cliff | The area of the outside of a meander where erosion is greater |
| 40 | Alluvium/silt | Deposits of sand, gravel, clay/mud which has been dropped down by a river |

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| 41 | Urbanisation | The growth of urban (built up) areas usually where there are more impermeable surfaces like concrete and tarmac, where water cannot soak through, so runs over the surface |
| 42 | Deforestation | The cutting down of trees. This can increase flooding as it reduces interception and increases run-off of water into rivers |
| 43 | Monsoon | The term for the wind that carries heavy rains to southern Asia, and the rains themselves |
| 44 | Tropical storm | A hazard that brings heavy rainfall, strong winds and other related problems such as mudslides and floods. Tropical storms usually form between approximately 5° and 30° latitude and move westward due to easterly winds |
| 45 | Storm surge | The abnormal rise in seawater level during a storm, measured as the height of the water above the normal predicted tide |
| 46 | Immediate response | A response in the days and weeks immediately after a disaster has happened. Short-term responses mainly involve search and rescue and helping the injured |
| 47 | Long-term response | Responses that go on for months and years after a disaster. They involve rebuilding destroyed infrastructure, e.g. roads, houses, power and water supplies, schools and hospitals. |
| 47 | Levees | Mounds which can form naturally either side of a river where a river deposits its material during a flood. These can also be man-made to contain flood water |
| 49 | Dams | A wall built across a river, to hold water back |
| 50 | Afforestation | Planting trees - a natural method used to reduce flooding |
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| 51LICLow income country (poor)52HICHigh income country (rich)53Short term aidSupplies which people need immediately after a disaster e.g. first aid, food, water, shelter54Long term aidSupport given to help re-build and plan for future disasters55Foreign/ overseas aidSupport given by other countries, which could be in the form of money (loans) or donations of goods or expertise56PermeableRocks which water can soak through57ImpermeableRocks or surfaces which water cannot soak through | | | |
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