

**Coastal Environments**

**Multiple choice knowledge checker**

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| 1. | What causes waves? | |
| ⭘ | A. | Tides |
| ⭘ | B. | Wind |
| ⭘ | C. | Rain |
| ⭘ | D. | Plate tectonics |

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| 2. | What influences the size and energy of a wave? | |
| ⭘ | A. | The strength of the wind |
| ⭘ | B. | Length of time the wind has been blowing |
| ⭘ | C. | The strength of the wind and how long wind has been blowing |

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| 3. | True or false? Waves are caused by the transfer of energy from the wind to the sea due to friction of the wind on the surface of the water. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 4. | What is the top of a wave called? | |
| ⭘ | A. | Crest |
| ⭘ | B. | Trough |
| ⭘ | C. | Frictional drag |
| ⭘ | D. | Wave tilt |

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| 5. | What is the base of a wave called? | |
| ⭘ | A. | Crest |
| ⭘ | B. | Trough |
| ⭘ | C. | Frictional drag |
| ⭘ | D. | Wave tilt |

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| 6. | How is wave height calculated? | |
| ⭘ | A. | The distance between two wave troughs |
| ⭘ | B. | The distance between two wave crests |
| ⭘ | C. | The distance between the trough and the crest |
| ⭘ | D. | The distance a wave moves up a beach |

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| 7. | How is wave length calculated? | |
| ⭘ | A. | The distance between two wave troughs |
| ⭘ | B. | The distance between two wave crests |
| ⭘ | C. | The distance between the trough and the crest |
| ⭘ | D. | The distance a wave moves up a beach |

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| 8. | What is wave frequency? | |
| ⭘ | A. | The distance a wave travels |
| ⭘ | B. | The length of a wave |
| ⭘ | C. | The height of a wave |
| ⭘ | D. | The number of waves breaking per minute |

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| 9. | What is the fetch of a wave? | |
| ⭘ | A. | The distance a wave travels |
| ⭘ | B. | The length of a wave |
| ⭘ | C. | The height of a wave |
| ⭘ | D. | The number of waves breaking per minute |

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| 10. | True or false? In deep water, water molecules within a wave in a circular motion. It is only in shallow water that the water itself is moving forward. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 11. | Why are some waves stronger than others? | |
| ⭘ | A. | They have a long fetch and strong winds have been blowing over them for a long time. |
| ⭘ | B. | They have a short fetch and strong winds have been blowing over them for a long time. |
| ⭘ | C. | A full moon and long fetch |
| ⭘ | D. | A full moon and short fetch |

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| 12. | What is it called when a wave breaks on a beach and washes up it? | |
| ⭘ | A. | Backwash |
| ⭘ | B. | Swash |
| ⭘ | C. | Crest |
| ⭘ | D. | Trough |

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| 13. | A wave rushing back down a beach towards the sea is called: | |
| ⭘ | A. | Backwash |
| ⭘ | B. | Swash |
| ⭘ | C. | Crest |
| ⭘ | D. | Trough |

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| 14. | What causes a wave to slow as it approaches a beach? | |
| ⭘ | A. | Swash |
| ⭘ | B. | Backwash |
| ⭘ | C. | Functional drag |
| ⭘ | D. | Frictional drag |

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| 15. | What are the characteristics of a constructive wave? | |
| ⭘ | A. | The swash is stronger than the backwash. The wave height is high. |
| ⭘ | B. | The backwash is stronger than the backwash. The wave height is high. |
| ⭘ | C. | The swash is stronger than the backwash. The wave height is low. |
| ⭘ | D. | The backwash is stronger than the backwash. The wave height is low. |

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| 16. | What are the characteristics of a destructive wave? | |
| ⭘ | A. | The swash is stronger than the backwash. The wave height is high. |
| ⭘ | B. | The backwash is stronger than the backwash. The wave height is high. |
| ⭘ | C. | The swash is stronger than the backwash. The wave height is low. |
| ⭘ | D. | The backwash is stronger than the backwash. The wave height is low. |

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| 17. | Where are constructive waves typically found? | |
| ⭘ | A. | Sheltered bays |
| ⭘ | B. | Exposed headlands |
| ⭘ | C. | Exposed based |
| ⭘ | D. | Sheltered headlands |

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| 18. | What is the typical frequency of constructive waves? | |
| ⭘ | A. | 4-6 |
| ⭘ | B. | 8-10 |
| ⭘ | C. | 12-14 |
| ⭘ | D. | 16-18 |

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| 19. | Which type of wave is most common in summer? | |
| ⭘ | A. | Destructive waves |
| ⭘ | B. | Constructive waves |

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| 20. | What is the typical frequency of destructive waves? | |
| ⭘ | A. | 2-6 |
| ⭘ | B. | 6-10 |
| ⭘ | C. | 10-14 |
| ⭘ | D. | 14-18 |

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| 21. | Which type of waves build beaches? | |
| ⭘ | A. | Destructive waves |
| ⭘ | B. | Constructive waves |

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| 22. | What happens to a beach when a wave’s backwash is stronger than its swash? | |
| ⭘ | A. | The beach is eroded |
| ⭘ | B. | The beach builds up |

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| 23. | What is weathering? | |
| ⭘ | A. | The breaking down of rock in situ. |
| ⭘ | B. | The wearing away of land by the sea. |
| ⭘ | C. | The transportation of material by the sea. |
| ⭘ | D. | The deposition of material by the sea. |

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| 24. | Which type of weathering involves rainwater decomposing rock? | |
| ⭘ | A. | Freeze-thaw weathering |
| ⭘ | B. | Biological weathering |
| ⭘ | C. | Salt weathering |
| ⭘ | D. | Chemical weathering |

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| 25. | Which of the following are examples of chemical weathering? | |
| ⭘ | A. | Carbonation, hydrolysis and oxidation |
| ⭘ | B. | Carbonation, hydrolysis and freeze-thaw weathering |
| ⭘ | C. | Carbonation, hydrolysis and salt weathering |
| ⭘ | D. | Carbonation, salt weathering and freeze-thaw weathering |

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| 26. | What type of chemical weathering involves carbonic acid in rainwater reacting with calcium carbonate in limestone to form soluble calcium bicarbonate that can be carried away in solution? | |
| ⭘ | A. | Carbonation |
| ⭘ | B. | Hydrolysis |
| ⭘ | C. | Oxidation |

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| 27. | What type of chemical weathering involves acidic rainwater breaking down rock, causing it to rot? | |
| ⭘ | A. | Carbonation |
| ⭘ | B. | Hydrolysis |
| ⭘ | C. | Oxidation |

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| 28. | What type of chemical weathering involves rocks being broken down by oxygen and water? | |
| ⭘ | A. | Carbonation |
| ⭘ | B. | Hydrolysis |
| ⭘ | C. | Oxidation |

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| 29. | True or false? Mechanical weathering involves rocks being disintegrated rather than decomposed and is usually associated with extremes of temperature? | |
| ⭘ | A. | ﻿True |
| ⭘ | B. | False |

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| 30. | Which of the following are examples of mechanical weathering? | |
| ⭘ | A. | Freeze-thaw and carbonation |
| ⭘ | B. | Freeze-thaw and salt weathering |
| ⭘ | C. | Freeze-thaw and hydrolysis |
| ⭘ | D. | Freeze-thaw and oxidation |

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| 31. | What is mass movement? | |
| ⭘ | A. | The down-slope movement of rock, soil or mud under gravity. |
| ⭘ | B. | The removal of beach sediment from a beach by waves. |
| ⭘ | C. | The transportation of material along the coast by the sea. |
| ⭘ | D. | The deposition of material by the sea. |

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| 32. | Which of the following are examples of mass movement? | |
| ⭘ | A. | Rockfall, landside, mudslide and slumping |
| ⭘ | B. | Rockfall, landslide, mechanical weathering and slumping |
| ⭘ | C. | Rockfall, chemical weathering, mudslide and slumping |
| ⭘ | D. | Rockfall, landslide, mudslide and slumping |

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| 33. | Which type of mass movement features a concave slip plane? | |
| ⭘ | A. | Rockfall |
| ⭘ | B. | Landslide |
| ⭘ | C. | Mudslide |
| ⭘ | D. | Slumping |

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| 34. | True or false? A landslide involves individual rocks losing contact with the cliff face, often as the result of freeze-thaw. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 35. | True or false? Weathering can cause cliff instability, leading to mass movement | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 36. | What is coastal erosion? | |
| ⭘ | A. | The wearing away and removal of material by waves. |
| ⭘ | B. | The transportation of material by the sea. |
| ⭘ | C. | The deposition of material by the sea. |
| ⭘ | D. | All of the above |

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| 37. | Under which of the following conditions will the rate of erosion be higher? | |
| ⭘ | A. | Coastlines exposed to a small fetch, strong winds, there are soft rocks, the rock has many joints and a coastline with no beach. |
| ⭘ | B. | Coastlines exposed to a large fetch, strong winds and a coastline with a large beach |
| ⭘ | C. | Coastlines exposed to a large fetch, strong winds and a coastline with no beach. |
| ⭘ | D. | Coastlines exposed to a large fetch, gentle winds and a coastline with no beach. |

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| 38. | Identify the main types of coastal erosion. | |
| ⭘ | A. | Hydraulic action, abrasion, corrasion, attrition and solution. |
| ⭘ | B. | Corrasion, abrasion, attrition and sublimation. |
| ⭘ | C. | Longshore drift, abrasion, attrition and solution. |
| ⭘ | D. | Deposition, abrasion, attrition and solution. |

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| 39. | Which type of erosion involves destructive waves pick up beach material (e.g. pebbles) and hurl them at the base of a cliff. | |
| ⭘ | A. | Attrition |
| ⭘ | B. | Abrasion |
| ⭘ | C. | Corrasion |
| ⭘ | D. | Hydraulic Action |
| ⭘ | E. | Solution |

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| 40. | Which type of erosion involves waves containing sand and larger fragments wearing away the base of a cliff or headland. | |
| ⭘ | A. | Attrition |
| ⭘ | B. | Abrasion |
| ⭘ | C. | Corrasion |
| ⭘ | D. | Hydraulic Action |
| ⭘ | E. | Solution |

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| 41. | Which type of erosion involves waves hitting the base of a cliff leads to air compression in cracks, joints and folds in bedding planes causing repeated changes in air pressure. As air rushes out of the cliff when the wave retreats it leads to an explosive effect as pressure is released. | |
| ⭘ | A. | Attrition |
| ⭘ | B. | Abrasion |
| ⭘ | C. | Corrasion |
| ⭘ | D. | Hydraulic Action |
| ⭘ | E. | Solution |

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| 42. | Which type of erosion involves certain types of cliff eroding as the result of weak acids in the sea. | |
| ⭘ | A. | Attrition |
| ⭘ | B. | Abrasion |
| ⭘ | C. | Corrasion |
| ⭘ | D. | Hydraulic Action |
| ⭘ | E. | Solution |

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| 43. | Which type of erosion involves waves causing rocks and pebbles to bump into each other and break up. | |
| ⭘ | A. | Attrition |
| ⭘ | B. | Abrasion |
| ⭘ | C. | Corrasion |
| ⭘ | D. | Hydraulic Action |
| ⭘ | E. | Solution |

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| 44. | Where does most marine load originate from? | |
| ⭘ | A. | River deposits |
| ⭘ | B. | Eroded headlands |
| ⭘ | C. | The seabed |
| ⭘ | D. | All the above |

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| 45. | Which of the following are processes of coastal transportation? (you can pick more than one) | |
| ⭘ | A. | Traction |
| ⭘ | B. | Saltation |
| ⭘ | C. | Suspension |
| ⭘ | D. | Solution |

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| 46. | Which type of coastal transportation involves beach material being bounced along the seafloor? | |
| ⭘ | A. | Traction |
| ⭘ | B. | Saltation |
| ⭘ | C. | Suspension |
| ⭘ | D. | Solution |

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| 47. | Which type of coastal transportation involves beach material being suspended and carried by the waves? | |
| ⭘ | A. | Traction |
| ⭘ | B. | Saltation |
| ⭘ | C. | Suspension |
| ⭘ | D. | Solution |

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| 48. | Which type of coastal transportation involves large pebbles and boulders being rolled along the seafloor? | |
| ⭘ | A. | Traction |
| ⭘ | B. | Saltation |
| ⭘ | C. | Suspension |
| ⭘ | D. | Solution |

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| 49. | Which type of coastal transportation involves dissolved material being carried by the water? | |
| ⭘ | A. | Traction |
| ⭘ | B. | Saltation |
| ⭘ | C. | Suspension |
| ⭘ | D. | Solution |

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| 50. | True or false? The zig-zag movement of transported material along the coast is known as longshore drift. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 51. | What is another name for longshore drift? | |
| ⭘ | A. | Lateral drift |
| ⭘ | B. | Littoral drift |
| ⭘ | C. | Longitudinal drift |
| ⭘ | D. | Latitudinal drift |

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| 52. | True or false? The direction of longshore drift is determined by the prevailing wind. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 53. | What is coastal deposition? | |
| ⭘ | A. | ﻿ The wearing away of the land by the sea. |
| ⭘ | B. | The transportation of material along the coast. |
| ⭘ | C. | When waves drop and leave behind the load they were transporting. |

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| 54. | Coastal deposition occurs under which of the following conditions? (you can select more than one) | |
| ⭘ | A. | When waves enter an area of shallow water. |
| ⭘ | B. | When waves enter a sheltered area, e.g. a cove or bay. |
| ⭘ | C. | When there is little wind. |
| ⭘ | D. | When a river or estuary flows into the sea reducing wave energy. |

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| 55. | What is a concordant coastline? | |
| ⭘ | A. | A coastline where alternating layers of hard and soft rock run at right angles to the shore. |
| ⭘ | B. | A coastline where alternating layers of hard and soft rock run parallel to the shore. |

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| 56. | What is a headland? | |
| ⭘ | A. | A cliff that juts out into the sea that is surrounded by water on three sides. |
| ⭘ | B. | A crescent shaped indentation in the coastline. |

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| 57. | Headlands and bays are most likely to be found along which type of coastline? | |
| ⭘ | A. | Discordant |
| ⭘ | B. | Concordant |

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| 58. | Why is wave energy concentrated on a headland? | |
| ⭘ | A. | Wave deflection |
| ⭘ | B. | Wave reflection |
| ⭘ | C. | Wave refraction |
| ⭘ | D. | Wave connection |

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| 59. | What is a wave cut platform? | |
| ⭘ | A. | A pillar of rock detached from a headland. |
| ⭘ | B. | An area of bed rock visible at the base of a cliff. |
| ⭘ | C. | A natural arch formed in a headland. |
| ⭘ | D. | A notch in the base of a cliff. |

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| 60. | Which of the following are characteristics of a wave cut platform? (you can select more than one). | |
| ⭘ | A. | Gently slope down to the sea at an angle of 3-4 degrees. |
| ⭘ | B. | Covered at high tide and exposed at low tide. |
| ⭘ | C. | Bare rock smoothed by abrasion. |
| ⭘ | D. | Deep cracks in some places, with rock pools. |

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| 61. | Identify the correct sequence in the formation of a stump | |
| ⭘ | A. | Crack 🡪 arch 🡪 cave 🡪 stack 🡪 stump |
| ⭘ | B. | Crack 🡪 cave 🡪 stack 🡪 arch 🡪 stump |
| ⭘ | C. | Crack 🡪 cave 🡪 arch 🡪 stack 🡪 stump |
| ⭘ | D. | Stump 🡪 cave 🡪 arch 🡪 stack 🡪 crack |

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| 62. | Which of the following is a characteristic of a sea arch? | |
| ⭘ | A. | Wave cut notches at the base making it wider. |
| ⭘ | B. | Detached blocks or pillars of rock located off a headland. |
| ⭘ | C. | The base of a collapsed stack. |

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| 63. | Which of the following is a characteristic of a stump? | |
| ⭘ | A. | Wave cut notches at the base making it wider. |
| ⭘ | B. | Detached blocks or pillars of rock located off a headland. |
| ⭘ | C. | The base of a collapsed stack. |

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| 64. | Which of the following is a characteristic of a sea stack? | |
| ⭘ | A. | Wave cut notches at the base making it wider. |
| ⭘ | B. | Detached blocks or pillars of rock located off a headland. |
| ⭘ | C. | The base of a collapsed stack. |

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| 65. | Which of the following are types of beaches? (you can select more than one). | |
| ⭘ | A. | Sandy beach |
| ⭘ | B. | Pebble beach |
| ⭘ | C. | Rocky beach |

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| 66. | Which of the following are typical characteristics of pebble beaches? | |
| ⭘ | A. | Generally steep |
| ⭘ | B. | Dominant waves are constructive |
| ⭘ | C. | Storm beach with large pebbles |

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| 67. | Which of the following are typical characteristics of sandy beaches? | |
| ⭘ | A. | Generally steep |
| ⭘ | B. | Dominant waves are constructive |
| ⭘ | C. | Sometimes have sand dunes at the back of the beach |

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| 68. | What is a beach profile? | |
| ⭘ | A. | ﻿The gradient of a cliff. |
| ⭘ | B. | The gradient from the back of the beach to the sea. |
| ⭘ | C. | The gradient of a series of sand dunes. |

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| 69. | What is a terrace on a beach, formed in the backshore above the water level at high tide known as? | |
| ⭘ | A. | Ridge |
| ⭘ | B. | Off-shore bar |
| ⭘ | C. | Berm |

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| 70. | True or false? Berms are formed by constructive waves and existing berms are moved by storms and spring tides. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 71. | True or false? In winter, berms can be eroded to form off-shore bars. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 72. | What is the name for a water filled trough on a beach, often bordered by a ridge? | |
| ⭘ | A. | Tunnel |
| ⭘ | B. | Funnel |
| ⭘ | C. | ﻿Runnel |
| ⭘ | D. | ﻿Sunnel |

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| 73. | What does a wide sandy beach show? | |
| ⭘ | A. | A small tidal range |
| ⭘ | B. | A large tidal range |
| ⭘ | C. | A limited tidal range |
| ⭘ | D. | An excessive tidal range |

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| 74. | What are large heaps of sand that form on the dry backshore of a sandy beach known as? | |
| ⭘ | A. | Spits |
| ⭘ | B. | Berms |
| ⭘ | C. | Ridges |
| ⭘ | D. | Sand dunes |

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| 75. | Which of the following are required for a sand dune to form? (you can select more than one) | |
| ⭘ | A. | A large flat beach |
| ⭘ | B. | A large supply of sand |
| ⭘ | C. | A large tidal range |
| ⭘ | D. | An obstacle for the dune to form against? |

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| 76. | How does wind move sand? | |
| ⭘ | A. | Saltation, suspension, traction and solution |
| ⭘ | B. | Suspension, saltation and creep |
| ⭘ | C. | Hydraulic action, attrition and solution |
| ⭘ | D. | Suspension, saltation and traction |

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| 77. | True or false? ﻿As you move inland sand dunes grow taller, vegetation size increases, the dunes become greyer, and slacks become deeper. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 78. | What is the name of a trough separating two sand dunes? | |
| ⭘ | A. | Slack |
| ⭘ | B. | Smack |
| ⭘ | C. | Track |
| ⭘ | D. | Pack |

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| 79. | What is the name of a large depression that forms in a sand dune? | |
| ⭘ | A. | Blowout |
| ⭘ | B. | Blowhole |
| ⭘ | C. | Blowhill |
| ⭘ | D. | Blowdune |

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| 80. | What are the characteristics of a slip slope? | |
| ⭘ | A. | Unstable, steep slope between 30-34° |
| ⭘ | B. | Gentle slope between 4-20° |
| ⭘ | C. | ﻿﻿The highest point of the sand dune |
| ⭘ | D. | The youngest and smallest dune |

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| 81. | Identify the term used to describe the change in vegetation with increased distance inland along several lines of dunes. | |
| ⭘ | A. | Vegetation successful |
| ⭘ | B. | Vegetation succession |
| ⭘ | C. | Pioneer plants |
| ⭘ | D. | Vegetation migration |

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| 82. | What is the name of a sand or shingle beach that stretches from one side of a bay to another? | |
| ⭘ | A. | Bar |
| ⭘ | B. | Bay bar |
| ⭘ | C. | Off-shore barrier island |
| ⭘ | D. | Spit |

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| 83. | What is the name of a sand or shingle beach that that joins the mainland but projects down-drift, into the sea? | |
| ⭘ | A. | Bar |
| ⭘ | B. | Beach |
| ⭘ | C. | Off-shore barrier island |
| ⭘ | D. | Spit |

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| 84. | What is the name of a sand or shingle beach that that is completely detached from the mainland? | |
| ⭘ | A. | Bar |
| ⭘ | B. | Beach |
| ⭘ | C. | Off-shore barrier island |
| ⭘ | D. | Spit |

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| 85. | True or false? Longshore drift is responsible for forming spits and bars. | |
| ⭘ | A. | True |
| ⭘ | B. | False |

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| 86. | What is hard engineering? | |
| ⭘ | A. | Expensive artificial structures are used to protect the coast. |
| ⭘ | B. | Working with nature to protect the coast. |

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| 87. | Which of the following is not an example of hard engineering? | |
| ⭘ | A. | Gabions |
| ⭘ | B. | Rock armour |
| ⭘ | C. | Beach reprofiling |
| ⭘ | D. | Groynes |

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| 88. | What is a sea wall? | |
| ⭘ | A. | A barrier between waves and the land. They are sometimes recurved to deflect the energy of waves. |
| ⭘ | B. | A wooden or stone structure built at right angles to the coast. |
| ⭘ | C. | Tonnes of huge boulders to act as a barrier between the sea and the land. |
| ⭘ | D. | Steel wire mesh cages filled with pebbles or rocks. They are placed at the back of a sand beach to create a wall like structure. |

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| 89. | What is a gabion? | |
| ⭘ | A. | A barrier between waves and the land. They are sometimes recurved to deflect the energy of waves. |
| ⭘ | B. | A wooden or stone structure built at right angles to the coast. |
| ⭘ | C. | Tonnes of huge boulders to act as a barrier between the sea and the land. |
| ⭘ | D. | Steel wire mesh cages filled with pebbles or rocks. They are placed at the back of a sand beach to create a wall like structure. |

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| 90. | What is a groyne? | |
| ⭘ | A. | A barrier between waves and the land. They are sometimes recurved to deflect the energy of waves. |
| ⭘ | B. | A wooden or stone structure built at right angles to the coast. |
| ⭘ | C. | Tonnes of huge boulders to act as a barrier between the sea and the land. |
| ⭘ | D. | Steel wire mesh cages filled with pebbles or rocks. They are placed at the back of a sand beach to create a wall like structure. |

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| 91. | What is rock armour? | |
| ⭘ | A. | A barrier between waves and the land. They are sometimes recurved to deflect the energy of waves. |
| ⭘ | B. | A wooden or stone structure built at right angles to the coast. |
| ⭘ | C. | Tonnes of huge boulders to act as a barrier between the sea and the land. |
| ⭘ | D. | Steel wire mesh cages filled with pebbles or rocks. They are placed at the back of a sand beach to create a wall like structure. |

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| 92. | A sea wall gives people a sense of security from coastal erosion. What type of benefit is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 93. | A sea wall is unattractive and can damage habitats. What type of disadvantage is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 94. | Rock armour is relatively cheap at a cost of between £1000 and £3000 a metre. What type of benefit is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 95. | Rock armour can make access to a beach difficult. What type of disadvantage is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 96. | Gabions blend in better than other hard engineering solutions. What type of benefit is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 97. | Regular maintenance of gabions is required as they quickly degrade. What type of disadvantage is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 98. | Which of the following is not an example of soft engineering? | |
| ⭘ | A. | Beach recharge |
| ⭘ | B. | Beach recycling |
| ⭘ | C. | Beach reprofiling |
| ⭘ | D. | Beach walls |

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| 99. | Which of the following are examples of beach nourishment? | |
| ⭘ | A. | Beach recharge and recycling |
| ⭘ | B. | Beach recharge and beach reprofiling |
| ⭘ | C. | Beach recharge and sand dune regeneration |
| ⭘ | D. | Beach recycling and beach reprofiling |

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| 100. | What is a beach recharge? | |
| ⭘ | A. | The removal of sand from a down-drift area which is accumulating sand and returning it up drift. |
| ⭘ | B. | The artificial re-shaping of a beach using existing beach material |
| ⭘ | C. | The artificial creation of sand dunes or restoration of existing dunes. |
| ⭘ | D. | Sediment is taken from a bay and placed on a beach that is losing sand. |

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| 101. | What is a beach recycling? | |
| ⭘ | A. | The removal of sand from a down-drift area which is accumulating sand and returning it up drift. |
| ⭘ | B. | The artificial re-shaping of a beach using existing beach material |
| ⭘ | C. | The artificial creation of sand dunes or restoration of existing dunes. |
| ⭘ | D. | Sediment is taken from a bay and placed on a beach that is losing sand. |

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| 102. | What is a beach reprofiling? | |
| ⭘ | A. | The removal of sand from a down-drift area which is accumulating sand and returning it up drift. |
| ⭘ | B. | The artificial re-shaping of a beach using existing beach material |
| ⭘ | C. | The artificial creation of sand dunes or restoration of existing dunes. |
| ⭘ | D. | Sediment is taken from a bay and placed on a beach that is losing sand. |

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| 103. | What is a sand dune regeneration? | |
| ⭘ | A. | The removal of sand from a down-drift area which is accumulating sand and returning it up drift. |
| ⭘ | B. | The artificial re-shaping of a beach using existing beach material |
| ⭘ | C. | The artificial creation of sand dunes or restoration of existing dunes. |
| ⭘ | D. | Sediment is taken from a bay and placed on a beach that is losing sand. |
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| 104. | Following beach nourishment, a wider beach means more room for users. What type of benefit is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 105. | During beach nourishment access to the beach is restricted for several weeks. What type of disadvantage is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 106. | Beach reprofiling can result in a beach looking reasonably natural. What type of benefit is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 107. | Beach profiling can be very expensive. What type of disadvantage is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 108. | Small planting projects to regenerate sand dunes often uses volunteer labour to keep costs down. What type of benefit is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 109. | Sand dunes are dynamic environments. Once generated there is no evidence that they will be stable. What type of disadvantage is this? | |
| ⭘ | A. | Social |
| ⭘ | B. | Economic |
| ⭘ | C. | Environmental |

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| 110. | Creating an engineered new position of a coastline is known as what? | |
| ⭘ | A. | Coastal realignment |
| ⭘ | B. | Beach reprofiling |
| ⭘ | C. | Coastal engineering |

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| 111. | What is managed retreat? | |
| ⭘ | A. | When the decision is made to no longer follow a hold the line strategy for managing coastal erosion and flooding. |
| ⭘ | B. | When the decision is made to protect an area of land that was previously unprotected. |
| ⭘ | C. | When the decision is made to upgrade coastal defences at a particular location. |

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| 112. | Which of the following is a social benefit of managed retreat? | |
| ⭘ | A. | It may help take the pressure off areas further along the coast and reduce their risk of flooding. |
| ⭘ | B. | It is useful cheaper in the long term rather than maintain hard engineering defences. |
| ⭘ | C. | It is designed to conserve or enhance the natural environment. |

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| 113. | Which of the following is an environmental benefit of managed retreat? | |
| ⭘ | A. | It may help take the pressure off areas further along the coast and reduce their risk of flooding. |
| ⭘ | B. | It is useful cheaper in the long term rather than maintain hard engineering defences. |
| ⭘ | C. | It is designed to conserve or enhance the natural environment. |

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| 114. | Which of the following is an economic benefit of managed retreat? | |
| ⭘ | A. | It may help take the pressure off areas further along the coast and reduce their risk of flooding. |
| ⭘ | B. | It is useful cheaper in the long term rather than maintain hard engineering defences. |
| ⭘ | C. | It is designed to conserve or enhance the natural environment. |

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| 115. | Which of the following is a social disadvantage of managed retreat? | |
| ⭘ | A. | Short-term costs may be very high. |
| ⭘ | B. | Relocation of people to new homes causes disruption and distress |
| ⭘ | C. | Large areas of agricultural land is lost. Also, habitats of coastal birds will be affected. |

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| 116. | Which of the following is an economic benefit of managed retreat? | |
| ⭘ | A. | Short-term costs may be very high. |
| ⭘ | B. | Relocation of people to new homes causes disruption and distress |
| ⭘ | C. | Large areas of agricultural land is lost. Also, habitats of coastal birds will be affected. |

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| 117. | Which of the following is an environmental benefit of managed retreat? | |
| ⭘ | A. | Short-term costs may be very high. |
| ⭘ | B. | Relocation of people to new homes causes disruption and distress |
| ⭘ | C. | Large areas of agricultural land is lost. Also, habitats of coastal birds will be affected. |

**Answers**

1. B
2. C
3. A
4. A
5. B
6. C
7. B
8. D
9. A
10. A
11. A
12. B
13. A
14. D
15. C
16. B
17. A
18. B
19. B
20. C
21. B
22. A
23. A
24. D
25. A
26. A
27. B
28. C
29. A
30. B
31. A
32. D
33. D
34. B
35. A
36. A
37. B
38. A
39. C
40. B
41. D
42. E
43. A
44. D
45. A, B, C and D
46. B
47. C
48. A
49. D
50. A
51. B
52. A
53. C
54. A, B, C and D
55. B
56. A
57. A
58. C
59. B
60. A, B, C and D
61. C
62. A
63. C
64. B
65. A and B
66. A and C
67. B and C
68. B
69. C
70. A
71. A
72. C
73. B
74. D
75. A, B, C and D
76. B
77. A
78. A
79. A
80. A
81. B
82. A
83. D
84. C
85. A
86. A
87. C
88. A
89. D
90. B
91. C
92. A
93. C
94. B
95. A
96. C
97. B
98. D
99. A
100. D
101. A
102. B
103. C
104. A
105. A
106. C
107. B
108. B
109. C
110. A
111. A
112. A
113. C
114. B
115. B
116. A
117. C