Oxford Revise | Geography | Answers

Chapter 15

All exemplar answers given are worth full marks.

1.1 Destructive waves have a weak swash and constructive waves have a strong swash. Destructive waves erode material and constructive waves deposit material.

1.2 There are two types of waves found at the coast. **Destructive** waves have a strong **backwash**, which removes material from the beach. **Constructive** waves build up the beach due to large amounts of sediment they carry and their powerful swash.

1.3 Fetch is the distance over which the wind has blown.

1.4 Constructive

1.5 The breaking down of rocks without a change in their chemical composition through the actions of temperature or rain.

1.6 When rocks are broken down with changes in their chemical composition. For example, when acidic rainwater containing CO_2 dissolves limestone.

1.7 D

1.8 Sliding occurs when weaknesses occur in a rock face along joints or fault lines. When weathering attacks a fault line, large blocks slide downhill along a bedding plane.

1.9 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	• Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Figure 1 shows mass movement has taken place through a process of rotational slip. The clay coastline has been eroded at its base through hydraulic power, abrasion, and solution. This has weakened the base and made the cliff unstable. At the same time, the soil has become saturated and very heavy. Rainwater would also have penetrated the cliff in small cracks and crevices. This has lubricated the crack and made it slippery. With an unstable base, heavy top, and lubricated cracks, the cliff has given way under gravity and slipped in a process of mass movement.*

2.1 Erosion is the wearing away and removal of rocks by the action of the sea.

2.2 Geology affects the rate of erosion because some rocks are more resistant to erosion than others. For example, chalk is more resistant to erosion than clay, so it erodes more slowly.

2.3 Hydraulic power is the sheer force of the waves hitting a cliff. The wave also compresses air into cracks in the cliff, forcing it apart.

2.4 Abrasion is the waves throwing sand, rocks and pebbles at the cliff and wearing the cliff face away.

2.5 Attrition is when rocks within the water knock into each other and become smaller and rounder.

2.6 C

2.7 This question is level-marked:

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2 (clear)	3–4	• Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
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Example answer: *Longshore drift is the transportation of sediment along the coastline. Waves approach the coast in the direction of the prevailing wind and the swash pushes sediment up the beach. Under the influence of gravity, the backwash pulls the sediment straight back down the beach. The next wave pushes the sediment back up the beach in the direction of the prevailing wind. This process is repeated, and sediment is gradually moved along the coastline in a zig zag pattern.*

2.8 Deposition occurs when the sea drops the material that it is carrying.

2.9 The sea deposits material when it loses energy such as when friction increases in shallow areas.

Accept other suitable answers.

2.10 Deposition is common in sheltered coastlines, such as in a bay behind a headland. Waves have lost energy through striking the headland and the bay is also sheltered from the wind.