

# Oxford Revise | Geography | Answers

## Chapter 16

All exemplar answers given are worth full marks.

1.1 A

1.2 A

1.3 Headland

1.4 It is a more resistant rock to the two rock types to the north (Swanage Bay) and the South (Durlston Bay).

1.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> <li>• Sound, organised and relevant throughout, using supporting evidence and examples</li> <li>• Communicates good knowledge and understanding</li> <li>• Communicates using developed statements and ideas (e.g. uses connectives)</li> <li>• Uses geographical terms and vocabulary</li> </ul>
1 (basic)	1–2	<ul style="list-style-type: none"> <li>• Basic throughout with limited supporting evidence and/or examples</li> <li>• Communicates limited knowledge and understanding</li> <li>• Explanations are partial</li> <li>• Little or no use of geographical terms and vocabulary</li> </ul>
	0	No relevant content

Example answer: *Swanage Bay might have been formed because it is composed of a less resistant rock than the rock to the north and south. This means that when destructive waves hit this stretch of coastline, Swanage Bay has been eroded at a faster rate through hydraulic action and abrasion than the rocks nearby. Over time, this has led to Peveril Point and Ballard Point protruding out to sea as headlands, while Swanage Bay is eroded to form the bay.*

1.6 C

1.7 C

1.8 Northeast

1.9 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> <li>• Thorough, detailed, organised, and relevant throughout with supporting evidence and examples</li> <li>• Communicates detailed, clear knowledge and understanding</li> <li>• Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas)</li> <li>• Good use of geographical terms and vocabulary</li> </ul>

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> <li>• Sound throughout with some supporting evidence and examples</li> <li>• Communicates some knowledge and understanding</li> <li>• Communicates using linked statements and ideas (e.g. uses connectives, but needs further development)</li> <li>• Some use of geographical terms and vocabulary</li> </ul>
1 (basic)	1–2	<ul style="list-style-type: none"> <li>• Basic throughout with limited supporting evidence and/or examples</li> <li>• Communicates limited knowledge and understanding</li> <li>• Communicates using simple statements that are not developed</li> <li>• Little or no use of geographical terms and vocabulary</li> </ul>
	0	No relevant content

Example answer: *Figure 2 shows an arch and a stack in a headland that has become disconnected from the mainland. At one point in time, the headland would have had a crack in it. Erosional processes like hydraulic action and abrasion attacked this crack, widening and deepening it into a cave. Continued erosion would eventually have cut through this cave to create an arch like the one seen in the middle of Figure 2. Over time, more erosion at the base of the arch and weathering processes at the roof of the arch, along with gravity would cause the arch to collapse, leaving the stack that can be seen in the middle-right of Figure 2. The stack on the far right of Figure 2 would also have once been connected to the mainland with an arch and would have become disconnected in a similar way.*

**1.10** This question is level-marked:

Level	Marks	Description
3 (detailed)	7–9	<ul style="list-style-type: none"> <li>• Thorough, detailed, organised, and relevant throughout with supporting evidence and examples</li> <li>• Communicates detailed, clear knowledge and understanding</li> <li>• Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas)</li> <li>• Good use of geographical terms and vocabulary</li> </ul>
2 (clear)	4–6	<ul style="list-style-type: none"> <li>• Sound throughout with some supporting evidence and examples</li> <li>• Communicates some knowledge and understanding</li> <li>• Communicates using linked statements and ideas (e.g. uses connectives, but needs further development)</li> <li>• Some use of geographical terms and vocabulary</li> </ul>
1 (basic)	1–3	<ul style="list-style-type: none"> <li>• Basic throughout with limited supporting evidence and/or examples</li> <li>• Communicates limited knowledge and understanding</li> <li>• Communicates using simple statements that are not developed</li> <li>• Little or no use of geographical terms and vocabulary</li> </ul>
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**3-marks: SPaG** (spelling, punctuation, grammar, and specialist terminology)

Marks	Description
3	<ul style="list-style-type: none"> <li>• Accurate spelling and punctuation</li> <li>• Rules of grammar followed</li> <li>• Effective control of meaning</li> <li>• Uses wide range of specialist terms</li> </ul>
2	<ul style="list-style-type: none"> <li>• Generally accurate spelling and punctuation</li> <li>• Most rules of grammar followed</li> <li>• General control of meaning</li> <li>• Uses good range of specialist terms</li> </ul>
1	<ul style="list-style-type: none"> <li>• Reasonably accurate spelling and punctuation</li> <li>• Some rules of grammar followed – errors do not hinder meaning</li> <li>• Some control of meaning</li> <li>• Limited use of specialist terms</li> </ul>
0	<ul style="list-style-type: none"> <li>• Writes nothing</li> <li>• Does not relate to question</li> <li>• Basic grasp of spelling, punctuation, and grammar prevents clear meaning</li> </ul>

Example answer: *Geology has been very important in the formation of landforms on the Swanage coastline. The town of Swanage is located in a bay. This has been formed because it is a discordant coastline where there are bands of different rocks perpendicular to the coast, which erode at different rates. To the north of Swanage Bay there is a band of chalk and south of Swanage Bay is a band of limestone. In between is a band of clay, which is much less resistant to erosion than chalk or limestone. The clay has been eroded more quickly, creating the bay and leaving two headlands to the north and south. These coastal landforms only form because of the geology of the area and bands of resistant and less resistant rock.*

*The Swanage coastline also has Old Harry Rocks, a series of caves, arches, and stacks in the headland north of Swanage Bay. The geology is also important here because chalk is quite resistant to erosion meaning that it is possible for these erosional landforms to form. If the geology was clay, for example, the cliffs would collapse through mass movement and the rocks would not be stable enough for arches and stacks to form.*

**2.1** This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> <li>• Sound, organised and relevant throughout, using supporting evidence and examples</li> <li>• Communicates good knowledge and understanding</li> <li>• Communicates using developed statements and ideas (e.g. uses connectives)</li> <li>• Uses geographical terms and vocabulary</li> </ul>
1 (basic)	1–2	<ul style="list-style-type: none"> <li>• Basic throughout with limited supporting evidence and/or examples</li> <li>• Communicates limited knowledge and understanding</li> <li>• Explanations are partial</li> <li>• Little or no use of geographical terms and vocabulary</li> </ul>
	0	No relevant content

Example answer: *Wave-cut platforms are formed on coastlines with quite resistant rock like chalk or limestone. Erosional process, such as hydraulic action and abrasion, attack fault lines and weaknesses in the rock, which creates a notch in the cliff face. Over time, this notch deepens as it is eroded further back. The cliff face above the notch becomes unstable and eventually collapses. The whole cliff moves backwards and as the process is repeated, a wave-cut platform is formed at the low water mark and is visible at low tide.*

2.2 A: Arch

B: Stack (**accept stump**)

C: Cave

2.3 This question is level-marked:

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Example answer: *Over time, it is likely that the arch will collapse, leaving a stack. This is because the roof of the arch will be weakened by weathering processes like freeze-thaw weathering and biological weathering. As it is weakened, gravity will cause the arch to collapse. The stack will be eroded at its base by hydraulic power and abrasion. This will create a wave cut notch at the base of the stack which will gradually deepen and undercut the stack, leading to it collapsing to form a stump.*

2.4 This question is level-marked:

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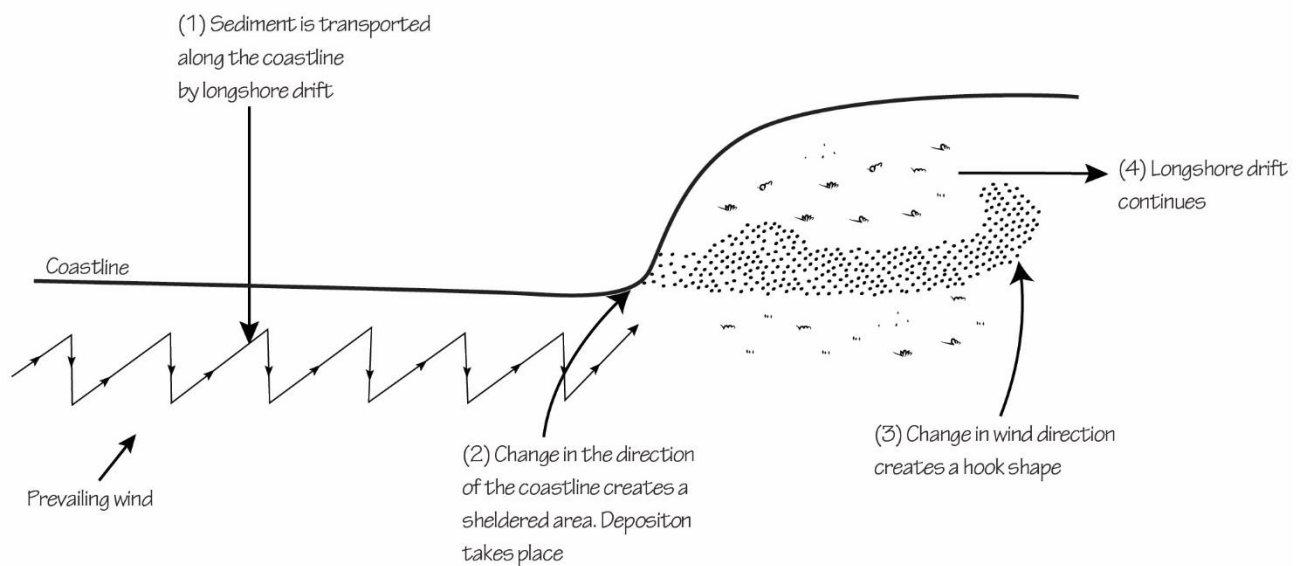
Example answer: *Beaches are formed in sheltered environments where wave energy is lower. In a bay, for example, the water is sheltered by the two headlands, providing the conditions for beach formation. Waves*

lose energy by striking the headland and travel into the bay as constructive waves. These waves have a strong swash and a weak backwash, meaning they deposit material, eventually forming a beach.

2.5 This question is level-marked:

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Example answer: A spit is formed when longshore drift moves sediment along the coast in the direction of the prevailing wind. When there is a change in direction of the coastline, it is more sheltered, causing deposition to take place. Sediment continues to be deposited along the coastline and the spit starts to extend out to sea. When the wind changes direction, this causes a hook shape in the spit which then continues to extend out to sea when the wind returns to its normal direction.



To receive full marks, students must use one or more diagrams in their answer.

2.6 Sand dunes require onshore winds blowing sand toward the shore. They also require a small obstacle so that sand can accumulate and provide conditions for plants to establish themselves.

**2.7** This question is level-marked:

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*Example answer: Sand dunes are formed when onshore winds blow sand toward the land. Some sand becomes trapped by small obstacles like driftwood and an embryo dune starts to develop. Over time, vegetation like sea lyme grass starts to grow and holds the dune together, allowing more sand to accumulate. The dunes grow in size with more vegetation like marram grass growing as the dunes develop into fore dunes and then yellow dunes. As vegetation in the dune dies, it adds fertile nutrients to the sand so over time a wider range of vegetation grows, leading to the formation of grey dunes.*

**2.8** This question is level-marked:

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Example answer: *Erosion and deposition have worked together to form landforms on the Swanage coastline. Swanage Bay has been formed through processes of hydraulic power and abrasion as the waves have eroded the soft clay which lies between a band of chalk to the north and limestone to the south. This has created a sheltered bay with the conditions for a beach to form. Constructive waves have deposited sand in the bay sheltered between the headlands.*

*Erosion has also led to the formation of caves, arches, and stacks in the chalk headland. Hydraulic power has widened a crack in the headland to form a cave which over time has enlarged and cut through the headland forming an arch. The arch is widened through further erosion and has collapsed leaving a stack called 'Old Harry'.*

*To the north and sheltered by the headland is Studland Bay, which is a spit and has developed through longshore drift transporting sediment and depositing it in the sheltered area behind the headland. The spit extends across Poole Harbour and sand dunes have also formed in Studland Bay. Overall, erosion has been responsible for creating bays, headlands, and stacks but deposition has taken place in the sheltered environments created by erosion leaving beaches and a spit.*

**3.1** The strength of the wind and the fetch (the distance the wind has blown over) both influence the strength of a wave.

**3.2** D