

Finn's Coastal Explorer Challenge

Learning objective: To identify and explain the physical features and processes of UK coastlines, including erosion, deposition, and landforms.

Join Finn the dolphin on a coastal expedition! Answer these 10 questions to test your knowledge of how our beautiful shorelines are shaped by the power of the sea.

Answer Key: 1. A (Erosion), 2. True, 3. False (It is the wearing away of rock), 4. B (Deposition), 5. Headland, 6. True, 7. C (Longshore Drift), 8. False (They are usually found in bays), 9. Stack, 10. D (All of the above).

Word bank: Erosion · Deposition · Headland · Bay · Stack · Longshore Drift · Arch · Sediment · Cliff · Coastline

1. 1. What is the process called when waves crash against cliffs and wear them away? A) Erosion* B) Deposition C) Condensation D) Precipitation (1 mark)

2. 2. True or False: A bay is an inlet of the sea where the land curves inwards. (1 mark)

3. 3. True or False: Deposition happens when the sea has too much energy and carries rocks away. (1 mark)

4. 4. Which process builds up a beach by dropping sand and pebbles? A) Hydraulic Action B) Deposition* C) Attrition D) Abrasion (1 mark)

5. 5. What is the name for a piece of hard rock that sticks out into the sea, often separating two bays? (1-word answer) (1 mark)

6. 6. True or False: An arch is formed when two caves on either side of a headland meet in the middle. (1 mark)

7. 7. What is the name for the movement of sediment along the coastline? A) Tidal Flow B) Coastal Current C) Longshore Drift* D) Wave Refraction (1 mark)

8. 8. True or False: A stack is a tall pillar of rock that has become separated from the mainland by erosion. (1 mark)

9. 9. A steep rock face found at the edge of the sea is called a _____. (1-word answer) (1 mark)

10. 10. Which of these are types of coastal erosion? A) Hydraulic Action B) Abrasion C) Attrition D) All of the above* (1 mark)

Draw: Draw a cross-section of a coastline. Label a headland, a cave, an arch, and a stack. Use arrows to show where the waves are hitting the rock hardest.



Extension challenge: 1. Explain why some types of rock erode faster than others. 2. Compare and contrast a sandy beach with a rocky cliff; how do their formation processes differ? 3. Justify your answer: If a sea wall is built to stop erosion, what might happen to the beach further down the coast? 4. What might happen to the coastline in 100 years if global sea levels continue to rise? 5. If it costs £50,000 per metre to protect a coastline, calculate the cost of protecting a 2km stretch of beach. 6. Design a coastal management strategy to protect a village from flooding while keeping the beach beautiful for tourists.