

## Finn's Coastal Explorer Challenge

*Learning objective: To identify and explain the physical processes and features of a coastline, including erosion and deposition.*

Finn the dolphin needs your help to map the changing coastline! Look at the features listed below. For each item, decide if it is primarily created by 'Erosion' (the wearing away of land) or 'Deposition' (the building up of land by sediment). Write your choice and a brief explanation of how the feature forms.

*Word bank: Erosion · Deposition · Stump · Arch · Sandy Beach · Cliff · Spit · Caves*

**1. Choose 'Erosion' or 'Deposition' for a Cliff. Explain why the power of the sea creates this feature. (2 marks)**

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**2. Choose 'Erosion' or 'Deposition' for a Sandy Beach. Justify your answer by describing how the sediment gathers there. (2 marks)**

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**3. Compare and contrast how an Arch is formed versus how a Cave is formed. Which one appears earlier in the erosion cycle? (2 marks)**

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**4. Explain why a Spit is considered a depositional landform. What might happen if the longshore drift current suddenly stopped? (2 marks)**

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**5. If you were a coastal manager, would you rather live near a landscape shaped by erosion or deposition? Justify your answer using geographical evidence. (2 marks)**

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**6. What might happen to a coastal village if the rate of erosion happens faster than the rate of deposition? Suggest one way humans might try to slow this down. (2 marks)**

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**Draw:** Draw a cross-section of a coastline. Label a cliff, a stack, and a beach. Use arrows to show the direction of the waves hitting the rock face.



*Extension challenge: Imagine you are an explorer like Finn. Write a short, descriptive diary entry (100 words) from the perspective of a piece of rock that has just broken off a cliff due to hydraulic action. Describe your journey from the cliff face down to the seabed.*