

# Beach Nourishment

You have been given beach nourishment as your method of coastal protection. Your job is to record how beach nourishment works and make a note of its advantages and disadvantages. You then need to prepare a short presentation that will inform the rest of the class how beach nourishment works and give information about its strengths and weaknesses. Be as creative as you can during your presentation.

How does beach nourishment work?

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What are the strengths of beach nourishment?

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What are the weaknesses of beach nourishment?

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Draw a labelled diagram to show how beach nourishment works.

# Beach Nourishment

This is a soft engineering approach because it works with nature and it is sustainable – but it can be very expensive.

When sediment is taken away from the beach by waves, it can result in more of the wave's energy reaching the cliff and causing erosion. Having a high beach is a good way of dissipating the energy of the wave.

Beach nourishment involves replacing sand on the beach that has been removed. Sometimes this is done by bring lorries full of sand and dumping them on the beach before spreading it out evenly.

Another way is to use a dredging vessel that removes sand from the sea bed just off the coast and then pumps it back onto the beach. Because these are specialist vessels, they are expensive to hire; replacing sand on 100 metres of beach can cost up to £300 000. But the results are good because more sand and pebbles on the beach mean it can help to protect the coast.

There is also an economic advantage because tourists like nice sandy beaches. If there is a really good beach in a seaside town then people are more likely to come, spend the day playing on the beach and spend money in local shops.

If the sea has taken away the sand once, though, it will do it again. So beach nourishment is a process that will need to be repeated in a few years time.

