



Assessing the direction and amount of Longshore Drift by measuring the height of the sand on each side of a groyne.

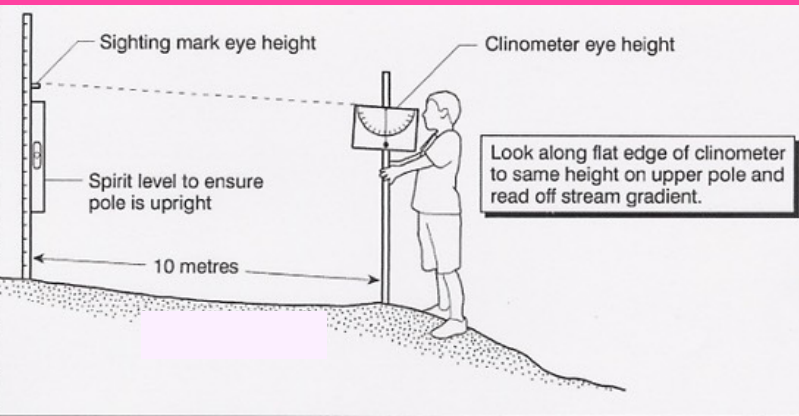
The first image shows waves breaking on a sandy beach where swash and backwash of the breaking waves directed by dominant winds moves sand along the beach.

The groynes prevent some of the movement and sand builds up on one side of the groyne. This accumulation of sand then acts as protection for the coast by absorbing wave energy. In the case of Hornsea this should be on the north side of the groyne as the drift movement is north to south.

The second image shows students measuring the distance from the top of the groyne to the top of the sand on each side of the groyne. This is done at set distances along the groyne. This is systematic sampling. In this case the direction of longshore drift is from right to left on the photograph.



You didn't do this but you could use it as a way you could have improved your enquiry



The profile of the beach is measured using two ranging poles placed a set distance apart, 10 m on this diagram, probably 5m in your case measured using a measuring tape. The poles should be vertical and a spirit level can be used to make sure. A clinometer is used, see the photo, to measure the angle between the two ranging poles. The poles must be set the same distance into the sand and the same height on each pole must be sighted by the observer. This is repeated in 5m sections up the beach from the shoreline to the top of the beach. These angles can then be used to draw an accurate beach profile. If this was done on both the north and south of a groyne it should show differences.

