I'm here in Wales carrying out coastal fieldwork, looking at longshore drift and sea defences.

Longshore drift moves sand and shingle along the beach, which can expose the land behind the beach to greater levels of erosion.

Fieldwork can be both quantitative and qualitative.

First we're going to use quantitative data, which is measurable and numbers based.

Our coastal fieldwork is going to see how effective groynes are by measuring their exposed height.

If you're doing fieldwork with your class, follow your teacher's instructions. Stay with your group and stay away from breaking waves or deep water.

Today I'm going to be assessing groynes - concrete, wooden or rock barriers. These prevent erosion inland by limiting longshore drift and building up a beach.

To do this I'm going to gather quantitative data to see how effective groynes are by measuring their exposed height.

To start this measurement I work from where the sea breaks right up to the end of each groyne, taking measurements at regular intervals of one metre. At each interval I measure and record the height of each side of the exposed groyne, like this.

If a groyne is disrupting longshore drift, sand will accumulate on the up-drift side. This means that we'd expect to see a smaller up-drift measurement as the groyne has trapped sand meaning that less of it is exposed. Another way that we can evaluate groynes is using qualitative data. This is descriptive data. For example we can use a bipolar analysis. This is a method where we make visual judgements and give them a score. I'm going to be scoring from negative three, the lowest, up to positive three, the highest, for questions such as how long lasting do they look. For example these look really long lasting so I'm going to give them a three.

The higher the score the more effective we can say a groyne is.

These are just two of the techniques used for coastal field work but through a balance of quantitative and qualitative methods we are now able to make a judgement about the coastal management on the beach.