**Feature of river erosion**

A feature of river erosion I have studied is waterfalls. Waterfalls occur on the upper stages of a river and it is usually a vertical drop, formed by vertical erosion. An example of a waterfall I have studied is Powerscourt waterfall in Wicklow. A waterfall forms as seen in diagram 1 when soft and hard rock are lying together on the river bed, an (example of soft rock is limestone and hard rock is granite).

The soft rock gets eroded quicker to fall a small drop at first. It erodes here by hydraulic action. Hydraulic action is the force of the water hitting off the soft rock. This river is also eroded by abrasion. Abrasion is the load of the river scratching the bed of the river. Both abrasion and hydraulic action eroded vertically to make a waterfall. Solution also wears down the soft rock. Solution is the chemical breakdown of rock. Eventually this forms a waterfall and plunge pool as seen in diagram 3. This plunge pool is formed by abrasion with the water churning the stones to form a deep pool. Above the plunge pool is an overhand is formed which can eventually fall into the plunge pool.



**Feature of river deposition**

A feature of river deposition that I have studied is Ox bow lakes. An ox bow lake is a horseshoe shaped lake that was once part of a river meander but is now cut off from the lake. These occur on the lower course of a river and form due to lateral erosion and deposition. An example of an ox-bow lake can be seen on the river Moy in Mayo.

When erosion takes place on the outer bank of a meander as seen in diagram 1 it eats into the neck of this meander (hydraulic action and abrasion). This eventually eats through the neck straightening the course of the river. This often occurs during times of heavy floods.

As the river does not flow into the meander the mouth of the meander gets sealed off by deposition. Deposition occurs as the river is moving very slow and does not have the energy to carry alluvium as seen in diagram 3. This eventually seals off both ends of them meander forming an ox bow lake. Over time this ox bow lake will dry out to form a scar.



**People and rivers-dams**

People use dams to store water forming an artificial lake called a reservoir as well as use this water to create hydroelectric power. An example of a dam in Ireland that I have studied is Ardnacrusha. There are many advantage and disadvantages to having a dam. Advantages are that they enable you to get cheap environmentally friendly forms of energy. The reservoirs behind the dam can be used for water activities such as fishing and swimming, and the reservoirs call be used for water supplies also.

Some of the disadvantages are that this reservoir can often flood settlements and valuable farmland behind the dam. It can also kill many animals such as the salmon which cannot travel up stream to spawn. These dams are also difficult to makes, very expensive to build and can make beautiful mountain scenery appear very ugly.

People also use dams for transport. Since the earliest setters came to Ireland, rivers have been used to transport people and goods. Limerick is an example of a city with a port function built on a bridging point.