KS2 Lesson Plan

Rivers and Canals

Introduction

This lesson gives children the opportunity to investigate some of the differences between canals and rivers. They will learn what the words 'natural' and 'man made' mean, how rivers are created as surface water runs to the sea, and why canals were built. They will learn to identify some of the major features of both by name.

Learning Objectives

- To understand the meaning of the words river & canal.
- To understand that rivers have natural origins although they may subsequently be altered by human action.
- To understand that canals are man-made
- To understand some of the main reasons why canals are built
- To learn the names of some of the main features of a river and canal.

National curriculum links

Geography

- The pupils will understand human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
- The pupils will understand physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle

Differentiation

- All children will learn that a river is natural and a canal man made.
- Most children will be able to identify and name the main features of a river and a canal.
- Some children will understand when and why canals were built.

Resources

1. .Copies of Rivers and Canals comparison sheet for each child.
2. Pencils
3. Two large flat trays, filled with wet sand, and plastic jugs/bottles filled with water
4. Toy boats, small enough to travel down the sand tray 'canal' when it has been built.(Optional)
5. Some toy people to operate the boats e.g. Lego or Playmobil figures. (Optional)

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Key vocabulary

river
canal
natural
man made
source
mouth
curved
straight
lock

Teaching Activities

1. Introduction
   Before the lesson begins, ask children what they know about rivers and canals, and record any information that they give on a board both differences and similarities.

2. Explain that rivers occur naturally, as a result of rain falling on high ground, and running downwards across lower ground to the sea. They may be thousands of miles long, or only a few miles. Canals are man-made, and designed to allow boats and people to travel by boat from one place to another. Sometimes they link river systems or lakes.

3. Split class into two groups. Arrange the two trays of sand, so that all the children in the group can stand around them. (In good weather, it would be sensible to do this part of the lesson outside). Ensure that the sand is wet, and well compacted in the trays before the lesson starts. It might be necessary to tilt one of the trays (the river tray) a little at one side, so that water poured in at one side will flow slowly down to the bottom.

4. Tell the two groups that one is going to make a river, and the other, a canal. Choose one person from the river group to take a jug of water, and begin SLOWLY to pour it onto the sand at the uphill side of the tray. Tell the others to watch carefully how the water flows across the sand, and think of good words to describe what it is doing.

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5. Ask the canal group, to dig a straight trench across their tray of sand, down to the tray at the bottom. This could be done with their hands, plastic spoons, or small beach spades. Get them to ensure that the sides of the canal are as vertical as possible. If you wish, the 'canal' could be lined with a waterproof liner, such as Lego bricks, aluminium foil or cling film. When the trench is complete, SLOWLY pour water into the trench, until it is full. To reinforce the idea that canals are always built to answer a transport need, you could get them to put a small group of toy figures at one end, and another at the other end of the 'canal', and then send a small boat along the canal between the two.

6. Plenary
   Bring the two groups back together to describe what they saw.

7. Recap
   Complete the table below individually, in pairs or groups or as a class

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How many differences can you find between a river and a canal? Write or draw what you have found out!

A river is…	A canal is…