

## Teachers Notes: 3<sup>rd</sup>/4<sup>th</sup> class.

### SESE: Science:

#### Strand: Environmental Awareness and Care

#### Strand Unit:: Environmental Awareness.

#### Topic: Acid Rain and The Tale of Our Irish Waterways.

#### Objectives:

By the end of this lesson children will be enabled to:

- Identify and discuss the typical Flora and Fauna found in or near Irish Waterways!
- List the main contributors in Ireland to Acid Rain.
- Know the effects of acid rain.
- Suggest and discuss ways they can help to stop the pollution that causes acid rain.
- Realise that it is both an individual and a community responsibility to take care of the environment.

#### Discussion:

1. Prior to introducing the class to the topic of Acid Rain, elicit their prior knowledge of what an acid is, citing examples they may know (e.g. the acid found in lemons, oranges, pineapple, vinegar etc.)
2. Discuss their experiences of visiting lakes rivers and coasts near their home and on holidays and the types of nature they experienced there. (Use suitable images, childrens own pictures as a stimulus)

#### Lesson Content:

An online PowerPoint contains the following information. Discuss each slide with the children allowing time to observe the images and discuss their content:

In every county and along every coastline in Ireland are many lakes, seas and rivers. These are full of plants and animals, which depend on waterways for their survival. On a normal day, the flora and fauna in

Ireland's waters should have enough food and clean water to keep them healthy. The wind carries pure air, and the rain comes down clear and clean.

#### Irish Flora and Fauna.

##### •Water Birds.

•Many birds depend on clean live waterways for survival: Examples include: The Goose, The Swan, The Grey Heron, The Duck, and The Puffin.

##### •Fish

- Freshwater: Salmon, Trout, Perch
- Saltwater: J. Dory, Plaice, and Cod.
- Shellfish: Oysters, Crab, Lobster.
- Flora. Plant life that survives in our rivers and seas relies just as much on clean water as our fauna does. Look online at the images of marine habitats.

### Dirty waterways

However, not every lake, river or coastal area in Ireland is blessed with clean water. Some of our water is polluted. This causes our plants and animals to suffer greatly. Waterways can be polluted in many different ways.

Elicit examples from the children.

Oil spillages pollute our waterways as well as rubbish that ends up in landfill sites. A lot of the things that make our lives more comfortable such as cars, electricity and heating, create bad gases and also make the air dirty. Everyone at some point contributes to pollution.

### Air Pollution.

Factories and car exhausts eject a lot of bad gases, which create air pollution. These gases pollute our air and then our rainwater eventually leading to, what's called, Acid Rain. When this rain falls it can kill our plants and animal life.

### Acid Rain.

When rain is acidic, it affects what it falls on: trees, lakes, buildings and

farmland. It can be very harmful to the environment to both Plant and Animal Life and to the lakes and waterways.

### Conclusion Doing our bit!

- Give the children an opportunity to come up with solutions to the problems of Acid Rain,. Evaluate these solutions together.
- Use buses or trains instead of cars and walk or cycle when ever you can to lessen air pollution.
- Reduce the amount of electricity you consume
- Reduce, Reuse and recycle where possible.
- We can all help our environment by reducing the amount of waste we let into landfill sites.
- Finally relate the schools mobile phone collection as an example of an everyday household item that can be easily saved from landfill thus helping to keep our waterways clean.

### Linkage:

**Geography:** Natural

Environments/Human Environments.

**SPHE:** Myself and The Wider World-Environmental Care