

SECTION EUROPÉENNE

Épreuve spécifique de Sciences Physiques en anglais

A pH problem...**DOCUMENT 1:**

An environmental scientist has been asked to investigate the quality of water in a river where a number of dead fish have been reported. She collects a sample of water to analyze in the lab.

Her first tests suggest that the water is too acidic.

DOCUMENT 2:**Effects of Low pH Levels in Water on Fish**

Very low (less than 4.5) pH values are unsuitable for most aquatic organisms. Young fish and immature stages of aquatic insects are extremely sensitive to pH levels below 5 and may die at these low pH values. Changes in pH can also affect aquatic life indirectly by altering other aspects of water chemistry. Low pH levels accelerate the release of metals from rocks or sediments in the stream. These metals can affect a fish's metabolism and the fish's ability to take water in through the gills, and can kill fish fry.

**TASK:**

You are the scientist who is in charge of analyzing the river. You have a trainee in your lab. He needs your explanations about how you will conduct experiments to analyze this water.

You can use the topics below to organise and support your presentation, but feel free to use them in any order you like.

- What does pH mean? How is it possible to measure it?
- What is an acid? What is a base?
- How can we get an unknown concentration of an acid species?