Testing the pH of King's Mill Reservoir

at Mill Waters heritage site

LO
LESSON OVERVIEW

In this lesson pupils will discover for themselves the pH of King's Mill Reservoir and be able to extrapolate from that whether it is the best level for aquatic species to live and thrive.

Pupils will learn about the pH scale and what a Universal Indicator test is. They will also be taught why monitoring the pH of the Reservoir is a useful way to identify any contamination in the water.

The collection and testing of water samples will be conducted using scientific research methods. The water samples will be compared with other types of water (bottled and tap), as well as with other everyday (non-harmful) liquids.

WHAT YOU WILL NEED

WC_L2TN	Testing the pH of King's Mill Reservoir
WC_L2HO1	What is pH and why is it important to King's Mill Reservoir?
WC_L2HO2	Instructions for testing the pH at King's Mill Reservoir
WC_L2HO3	pH data recording sheet
WC_L2HO3	The acid test! True or false quiz

LEARNING ACTIVITIES

Pupils will collect a sample of water from the reservoir and take this back to the Mill Waters Café to conduct their scientific test.

They will take readings using Universal Indicator paper strips and record their findings on the pH data record sheet provided.

Pupils should be able to draw some conclusions about the acidity of the reservoir and its suitability as an aquatic habitat. They will test a number of other everyday drinks and foods to ascertain their pH level.

Learning is embedded with 'The acid test' true or false quiz.

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LINKS TO THE CURRICULUM

SCIENCE

Working scientifically

Key Stage 2

- Setting up simple practical enquiries, comparative and fair tests
- Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- Pupils should explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation

Upper Key Stage 2

- Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations