

Description:

Interpreting line graphs to find answers to questions and creating new graphs with collected data.

Numeracy Strategy reference:

Pupils should be taught to solve a problem by collecting, organizing, representing, extracting and interpreting data in tables graphs and charts.

Task analysis:

Pupils are required to:

- Interpret existing line graphs
- Answer questions using bar charts
- Create their own bar charts to analyse data.

Learning Objectives:

Pupils should begin to draw and interpret a line graph in which intermediate values have meaning.

Suggested activities:**Oral work and mental calculation:**

Revise mode and range. Explain to the class they will need to use these terms for the main activity. Examples: 1) a river flood level over a week Sunday-2.5m, Monday-5.5m, Tuesday-4m, Wednesday-6.5m, Thursday-7m, Friday-5.5m, Saturday-4.5m 2) group spelling test scores 7, 9, 10, 5, 9, 8, 2, 9, 6, 10, 3

Teaching activity:

Use the activity sheet showing the height of a river level against time, discuss that the lines between the set times have a value. Using the printable worksheet of river level data 13.00-24.00hrs, pupils in their groups should complete the line graph. They should extract information and interpret what is happening on the river.

Using the printout 'Interpreting line graphs' children should identify what each graph is representing and write an explanation in the box at the foot of the page.

Plenary:

Children to report back and explain the timetable of events for their graph. Teacher to pose hypothetical questions and ask children to describe what may be happening on different line graphs provided by analysing the information presented.

Resources:

River level and Interpreting line graphs printable activity sheets. Excel spreadsheet.

Learning outcomes:

Pupils should be able to:

- Complete simple line graphs.
- Analyse and interpret line graphs to answer questions.

Extension activities:

Teacher to provide children with further untitled line graphs. Pupils should try and interpret what each graph is representing. Examples: noise levels at a soccer game over 2 hours, traffic in a city centre, visits to a 24-hour restaurant.