



# Line Graphs

**Description:**

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

**Numeracy Strategy reference:**

Year 5  
Handling data  
Organising and using data  
pg114

**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:**

Solve a problem by collecting, organizing, representing, extracting and interpreting data in tables, graphs and charts.

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

Reading time and clocks. Understand 8:48am, 8:48pm, 08:48hrs and 20:48h. What is 17 minutes past 4 in the afternoon? Midnight?

Solve word problems. For example, the sun sets at 19:30h; rises at 06:30h. How long is it dark? How much daylight is there?

**Teaching activity:**

Using the prepared graph showing the temperature over a 24hour period, pupils should work on groups to answer the five questions. Following this, pupils should create their own questions for others to answer. Could the graph then be drawn to a more accurate scale?

Introduce the graph showing noise in the Tyne Tunnel over a 24-hour period. Explain that the quiet periods are when little traffic is using the tunnel. Ask the children to decide what the axes represent and complete their own suggested explanation of why the high and low points occur.

**Plenary:**

Discuss the reasons for the results found. Why does the temperature rise and fall as it does? What explanations did the children suggest for the traffic in the Tyne Tunnel? Are there any patterns?

**Resources:**

Temperature and Noise in the Tyne Tunnel printable activity sheets. Excel spreadsheet.

**Learning outcomes:**

Pupils should be able to:

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

**Extension activities:**

Create a line graph on vehicles using the Humber Bridge, people using a station over 24 hours or visitors to Clacton during a year. This activity could be also be linked to data logging activities with results being recorded as line graphs and interpreted.