

Lesson 2

Key Stage 3 Mathematics – National Curriculum

Solving numerical problems

4. Pupils should be taught to:

choose, use and combine any of the four number operations to solve word problems involving numbers in 'real life'

Lesson Aim: Using weather data to make accurate predictions about the weather

Lesson Objectives:

- To be able to choose data from an online source to help problem solve
- To complete a series of problems related to the data.

Resources:

- Web link <http://weather.lgfl.org.uk/>

Lesson outline:

1. Recap on the previous lesson and look over the local data again on <http://weather.lgfl.org.uk/> . Discuss any obvious differences in the two days.
2. Explain that what has been done so far is on historic data. The real strength in weather data is not to tell us what has been but to 'predict' what might be to come.
3. By looking at past data we may identify a 'trend' that may help us work out what is going to happen next.
4. This is best illustrated in terms of temperature as it moves to the night phase. The times could be removed and it may be possible to plot the trend on a graph and calculate that it is evening and that the temperature will continue to drop.
5. For gifted and talented students this principle can be extended into the link between rising barometric pressure and solar radiation (sunshine) as there are lower cloud levels when air pressure is high.
6. Develop a series of questions related to sequencing and then get the pupils to develop their own questions using the data and the four number operations.