Blackout

The activity highlights our dependence on electricity and shows the importance of a reliable supply. The quotation from the New Scientist article explains that the power failures, which happened in the summer of 2003, were caused by breakdowns in distribution networks.

Each student has to imagine where they were and what they were doing when a major power cut occurred. At home freezers and telephone answering machines will have gone off and programmed systems will have to be reset. The control systems for the railways and at airports will be affected. Hospitals have emergency generators, but which areas of medical care should be given priority?

If the students do this activity as homework some of the accounts could be read out in the following lesson.

References

Textbook
Chapter 10 page 129

Specification
10.2 Electricity supplies

12.5 a. recognise how technologies based on science have been used in industry, commerce and medicine and how this has contributed greatly to the quality of life for many people.

Method

Individual activity, suitable for homework

Blackout

In the summer of 2003 there was a spate of power failures. In London the underground rail network was brought to a standstill when power from the national grid failed. Thousands of people were stuck in tunnels and stranded at darkened stations. There were power cuts elsewhere in the world that summer, as this article in the New Scientist describes:

> *It is incredible, but true. The whole of Italy was plunged into darkness last Saturday because somewhere in the Swiss Alps a tree fell over. The troublesome tree took out a cable carrying electricity into Italy, which buys in almost a fifth of its power. The incident triggered a cascade of failures that left more than 50 million Italians languishing in the dark.*
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> *Earlier in Septembe, 4 million Scandinavians suffered a similar fate when a transmission line between Sweden and Denmark was lost in stormy weather. And in August 50 million people in the US and Canada endured days of chaos after a massive power failure: again, the problem was traced back to a single power line.*

New Scientist (vol 180 issue 2415 - 04 October 2003, page 4)

Your task

Imagine that there has been a major power failure. Describe what happened and how it affected you and those around you in a letter or email to a friend. The effects will depend on where you were and what you were doing. Imagine yourself in a particular situation. Here are some suggestions:

- You are at home, in a house or flat
- You are returning home after having been away when the power cut began
- You are on a journey, perhaps at an airport, on the underground or in a train.
- You are at work in a place where a continuous supply of energy is vital, a hospital for instance. Here you could put yourself into a role e.g. as the manager of a ward in a hospital.