Lifestyles in the mathematics curriculum

LEVEL 3: Access information in a simple database.
Programme of study: Entering data into a simple computer database and using it to find answers to simple questions.

LEVEL 4(a): Interrogate and interpret data in a computer database.
Programme of study: Inserting, interrogating and interpreting data in a computer database.

LEVEL 4(b): Conduct a survey on an issue of their choice.
Programme of study: Specifying an issue for which data are needed.

LEVEL 5(a): Use a computer database to draw conclusions.
Programme of study: Inserting and interpreting data in a computer database; drawing conclusions.

LEVEL 5(b): Interpret statistical diagrams.
Programme of study: Constructing and interpreting pie charts from a collection of data with a few variables.

The pupils' experience with using Health Related Behavioural data can be exploited to advantage in the following levels:

LEVEL 6(a): Design and use a questionnaire to survey opinion.
Programme of study: Designing and using a questionnaire to survey opinion (taking account of bias); collecting and analysing results.

LEVEL 7(a): Organise and analyse data.
Programme of study: Specifying a simple hypothesis; designing and using an appropriate questionnaire or method to test it; collecting and analysing results to see whether a hypothesis is valid.

LEVEL 8: Design and use a questionnaire or experiment to test a hypothesis.
Programme of study: Designing and using a questionnaire with multiple responses or an experiment with several variables; collecting and analysing results to test a hypothesis.

Computerware for Lifestyles

Last October we circulated two leaflets about Lifestyles I to all secondary schools in the UK. One was addressed to the Information Technology specialist, the other to the head of PSE. We kept a number of relevant information derived from the returned order slips, which is presented in the table on page 7. This may be interesting to school staff who would like to know what hardware and software is currently being used in secondary schools. The fact that over twice as many data-bases are apparently being ordered by IT specialists than by PSE staff could indicate an appreciation of its potential across the curriculum.

The accompanying manual is designed to be "universal" as possible. It presents several exercises to carry out with the data — these contain 'worked examples' to check accuracy, but are also meant to show how the resource can be used by pupils to generate hypotheses about the links between health-related behaviours, which lead in turn to prediction and verification.

A school's own database

A further development of our computer database service is offering schools their own survey data for interpretation. Again a set of 18 variables is available, but there is a choice of combinations of variables under the following headings.

- General
- Home
- Alcohol
- Money
- Diet
- Social & Personal
- Drugs
- Sport
- Health Services
- Your own selection

To prevent individuals with known and distinctive characteristics from being identified inside the data, certain variables are suppressed.

The price for the standard Lifestyles I pack is £10 (cash with order) or £15 (sent with invoice). For further information, and for details about a database from your own school's survey, please contact Anne Wise (0392 254728).

A new challenge, and a new version of the questionnaire

In 1991 the government announced the City Challenge Initiative, a response to the deteriorating fabric and social structure of inner city areas. An important dimension of this initiative was to find out as much as possible about the young people living in them, and ten of the 'first-wave' funded cities were attracted by the idea of using the Health Related Behavioural Questionnaire to collect information. Now that 20 second-wave cities are also involved, use of the questionnaire is certain to be extended.

To meet their need, Version 16 of the questionnaire contains questions about 'aspirations'. These examine the young people's expectations about finding work, staying or moving on, going into higher education, raising a family, and other aspects of their post-school development. They are also asked to appraise the local facilities.

This 'aspirations' section arose out of an initiative involving the Office of Public Health in Newcastle upon Tyne, subsequently extended to the District Health Authority counterparts in Wolverhampton and the Wirral. A further modification involved adding an area key number to the questionnaire, so that the DHA could study the survey response patterns in different areas.

Several DHA's have planned inner-city surveys using Version 16 of the questionnaire. Typically these are on a year 8/9 year 10 basis, to be repeated biennially so that the younger age group is 'caught' a second time.

For the sake of continuity, changes between successive versions of the Health Related Behavioural Questionnaire are kept to a minimum, but there is always pressure to add new questions, and these may require 'fine tuning' if our subsequent experience of coding the answers reveals weaknesses or unexpected interpretations. Comparing Versions 15 and 16, the principal changes shown in the box.

The 'health risk number' gives respondents the option of identifying their own entry in a系列 of values calculated from certain values in the data. These are returned to the school in the form of a list with an identification code (supplied by each pupil) against each one. Only the pupils will know their own code and be able to identify their personal health risk number.