

# TED WRAGG



## You can do health education in the NC!

Once the National Curriculum is fully implemented, will there be room for more than the 'basics'? In particular, how will health education manage to preserve or enhance its status? By referring to topics in the Health Related Behaviour Questionnaire, Professor Wragg shows how they can both support and feed upon work in the three subjects already published, and also notes some promising links with the rest of the National Curriculum.

One of the problems about the National Curriculum is that it seems to be over full. In Science alone there are seventeen Attainment Targets, in Maths fourteen, in English five. At least the number is going down. Yet when all ten subjects are fully published the fear is that there will be room for little else other than the basics.

It is not too difficult, however, to incorporate health education into the National Curriculum. The mistake is to assume that 'health' must be covered *on top of* everything else. Take the science curriculum Attainment Target 3, 'Processes of life', at Level 5 as an example. Amongst the statements of attainment are the following:

- understand malnutrition and the relationship between diet, exercise, health, fitness and circulatory disorders
- know that in digestion food is made soluble so that it can enter the blood
- understand the way in which microbes and life style affect health
- be able to describe the functions of the major organ systems.

All these relate to central health education topics referred to in John Balding's Health Related Behaviour Questionnaire (HRBQ).

Consider next another set of Level 5 requirements, this time in maths. Attainment Target 1, for example, 'Using and applying mathematics', reads:

- use imperial units still in daily use and know their rough metric equivalents

and Attainment Target 9 'Applying mathematics':

- select the materials and the mathematics to use for a task; check there is sufficient information; work methodically and review progress.

All these maths requirements can be met in part using the health

education route. For example, the school's results on the HRBQ can be compared with the national picture as reported in the national press. These include measures such as drinks consumed. Also, the class can conduct an additional mini-survey or discuss how to display the school's information obtained from the HRBQ.

Similarly, Level 5 English requires pupils to 'write in a variety of forms, e.g. letters, instructions, stories, for a range of purposes'. It is not too difficult, therefore, to see health education and the use of the Exeter HRBQ as a way of combining the three core subjects, science, maths and English, to explore, measure and write or talk about the pupils' own and the nation's health.

Amongst the most promising ways of using the Health Related Behaviour Questionnaire as part of the National Curriculum are the ones below. I concentrate on Level 5 upwards, as these are the levels most commonly covered in the secondary stage of schooling. The suggestions below are by no means exclusive: there are numerous other possibilities.

## SCIENCE

**Attainment Target 1 —**  
'Exploration of Science'

There are various possibilities under the headings 'experimentation', 'enquiry', 'investigation'. For example: 'produce a systematically structured and, as appropriate, illustrated report of an entire investigation' (Level 7) would allow a pupil or class to do a thorough analysis of the printout from the school's own data.

**Attainment Target 3 —**  
'Processes of Life'

This is one of the most fruitful Attainment Targets for health education work.

**Level 5 —** diet, exercise, health, fitness, circulatory disorders.

**Level 6 —** physical and emotional

changes during adolescence — the risks of alcohol, solvent and drug abuse.

**Level 7 —** immunisation and the use of medicines.

All these relate to specific sections of the Questionnaire.

**Attainment Target 17 —**  
'The Nature of Science'

**Level 7 —** Effect of science on people's lives, physically, socially, spiritually and morally.

The effect of greater awareness of health issues could be studied.

## MATHS.

Over 170,000 pupils have completed the Health Related Behaviour Questionnaire in the last few years. This has produced vast amounts of data of several kinds. For example, the sample in a school or nationally can be broken down into year groups, boys can be compared with girls, there are percentages, such as the percentage of boys aged 14 who smoke, and so on. Furthermore there are many ways of displaying and analysing the data. Several of the mathematics Attainment Targets address these very matters, and HRBQ data at either school or national level can be used in a class.

**Attainment Target 1 —**  
'Using and applying mathematics'

**Level 5 —** Interpret mathematical information presented in oral, written or visual form.

**Level 6 —** use oral, written and visual forms to record and present findings.

**Level 9 —** design, plan and carry through a mathematical task to a successful conclusion.

All these can be met in a project based on the school's health statistics.

**Attainment Target 9 —**  
'Using and applying mathematics'

**Level 5 —** select the materials and mathematics to use for a task; check there is sufficient information; work methodically and review progress.

**Level 6 —** make and test generalisations and simple hypotheses; define and reason in simple contexts with some precision.

Pupils can analyse the school's health data after proposing their own hypotheses: do girls smoke more than boys? Do boys clean their teeth more often than girls? Do older pupils drink more alcohol than younger pupils? Nationally the answers to these

three questions would be yes, no, yes, but what about the local situation?

**Attainment Target 12 —**  
'Handling data'

**Level 5 —** design and use an observation sheet to collect data; collate and analyse results — collect, group and order continuous data using class intervals and create a frequency table for grouped data.

**Level 6 —** design and use a questionnaire to survey opinion (taking account of bias); collate and analyse results.

**Level 7 —** specify a simple hypothesis; design and use an appropriate questionnaire to test it.

**Level 8 —** construct a cumulative frequency table.

**Level 9 —** use sampling to investigate a population and recognise the reliability of different sizes of sample.

All of these permit and encourage work on pupils' health. Pupils can design their own items to follow up HRBQ findings in more detail (say, on diet, spending money, smoking/drinking). Hypotheses about aspects of health can be tested as described above. A cumulative frequency table can easily be constructed on several of the topics in the HRBQ, and the question of sampling can be explored if pupils conduct enquiries with small groups and then compare results with the whole class, whole school and national data from the HRBQ.

**Attainment Target 13 —**  
'Handling data'

**Level 5 —** construct and interpret a pie chart from a collection of data with a few variables; interpret pie charts already presented in journals and newspapers.

**Level 7 —** draw a frequency polygon as a line graph from a frequency distribution for

grouped data.

**Level 8 —** construct a cumulative frequency curve.

**Level 9 —** construct and interpret a histogram with understanding of the connection between area and frequency.

This is a very rich seam for health-related data. Most national newspapers reporting health data make some use of histograms, pie charts and other graphical devices, some of which might be misleading (for example, the ever-growing wine bottle or cigarette packet to illustrate higher drinking and smoking levels in older pupils might actually exaggerate differences because of the visual impact of exaggerated areas in the graphics compared with the actual increase in volume, frequency or occurrence).

## ENGLISH

The Attainment Targets 1 (listening and speaking), 2 (reading) and 3 (writing), all permit pupils to discuss and write about health education matters for a variety of audiences.

Amongst possible ideas are the following:

- Read quickly through the school's health data and produce a letter addressed to the school governors advocating a Health Education programme for the school and outlining what it should contain. (Attainment Target 2 'Reading' Levels 6 and 7 and Attainment Target 3 'Writing' Levels 5 and 7 cover such matters as distinguishing fact from opinion, synthesising information from different parts of a text, writing for various audiences and purposes.)
- Write a local newspaper report about health in the community as revealed by the school's health data.
- Script or improvise a sketch aimed at informing children about the risks of nicotine,

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alcohol or drug abuse. Tape record or video it if possible.

- Draw up a health bulletin for fellow pupils giving a digest of what they need to know about their own school's health statistics (e.g. boys cleaning teeth less than girls, etc.).

## DESIGN

Such notions as 'Health and Safety' and 'Information Technology' come under the Design and Technology heading. There are possibilities, therefore, like:

- Identify hazards in the working environment at school (Level 5)
- How to deal with accidents (Level 6)
- Health and safety hazards in the home and community (Level 6)
- That producers must provide information to users of products (Level 9)
- Use a suitable software package to create a computer database by which a set of data may be captured, stored and retrieved (Level 5)
- Vary the data and rules used within a simple computer model and assess the outcomes (e.g. define or change the way information is grouped into columns in a spreadsheet showing nutrient values in various kinds of meal) (Level 6)

## AND ALSO...

- Community health is a legitimate part of environmental concerns in GEOGRAPHY
- Disease and health topics can be looked at as part of HISTORY, especially over matters such as

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hygiene, immunisation, diet and other aspects of the Health Related Behaviour Questionnaire

- Health posters can be designed as part of ART
- Some of the topics in the HRBQ are related to GCSE topics in MODERN LANGUAGES (e.g. diet, home, hygiene, recreation and leisure, money, road use, sport, friends)
- Health and fitness are legitimate parts of PHYSICAL EDUCATION (e.g. exercise, sport, aerobics, avoidance of cardio-vascular disease)
- The moral, personal and social aspects of health can be discussed as part of RELIGIOUS EDUCATION.

## **CONCLUSION**

I hope this demonstrates that pupils can use the school's and the national findings of John Balding's Health Related Behaviour Questionnaire as a legitimate part of the National Curriculum, not as an irksome extra.

Well-conceived projects based on the school's own data will help pupils and teachers cover numerous Attainment Targets in both core and foundation subjects. There is a challenge to everyone's imagination. How can data be analysed, displayed, discussed? What experiments, drama, projects might be mounted? How can it all be communicated to governors, parents, other pupils, the community, the press?

The real payoff, however, is not just that the National Curriculum will be covered in a thorough and individually meaningful way, but that there is a real opportunity to affect directly the health and well-being of young people both now and into their adult life.

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