





Attitudes and motivation

The national monitoring assessment programme recognises the impact of attitudinal and motivational factors on student achievement in individual assessment tasks. Students’ attitudes, interests and liking for a subject have a strong bearing on progress and learning outcomes. Students are influenced and shaped by the quality and style of curriculum delivery, the choice of content and the suitability of resources. Other important factors influencing students’ achievements are the expectations and support of significant people in their lives, the opportunities and experiences they have in and out of school, and the extent to which they have feelings of personal success and capability.

Technology survey

The national monitoring technology survey sought information from students about their perceptions of their achievement and potential in technology. Students were also asked about their involvement in technology related activities within school and beyond. The survey was administered to both year 4 and year 8 students in independent format, with teacher help readily available. Most survey questions invited a written or spoken response. Four questions asked students to select a response on a four point scale. The responses to the four questions are summarized in the two tables following. Two of these questions were unchanged from 1996.





RESPONSES OF YEAR 4 STUDENTS TO THE TECHNOLOGY SURVEY				2000 (1996)
				
1. How much do you like doing technology at school?				
	56 (57)	29 (38)	9 (4)	6 (1)
2. How good do you think you are at technology compared to other subjects?				
	28 (22)	48 (56)	16 (18)	8 (4)
	<i>most days</i>	<i>more than once a week</i>	<i>less than once a week</i>	<i>hardly ever</i>
3. How often do you use a computer at school?				
	21	22	21	36
4. How often do you use a computer when not at school?				
	36	20	12	32

The results show that year 4 students have stayed generally positive about doing technology at school, although there is a slight increase in low ratings since 1996. Eighty-five percent chose the two highest ratings for the first question (how much they liked to do technology at school), compared to ninety-three percent in 1996. Students’ perceptions of their expertise in technology compared to other subjects (question 2) also stayed quite positive, with a slight increase since 1996 in the highest rating, but also a slight increase in the lowest rating.

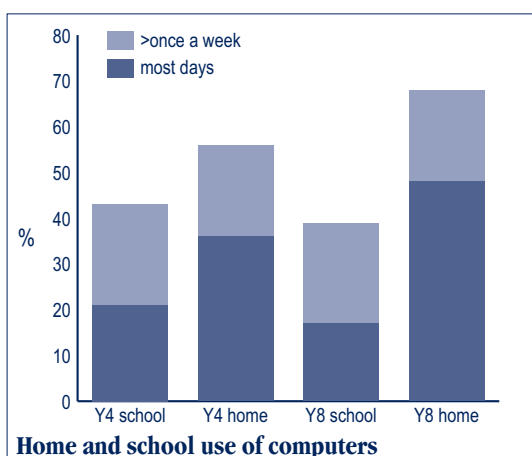
Year 4 students reported greater use of a computer when not at school than when at school. Forty-three percent of year 4 students reported that they used a computer at school “most days” or “more than once a week”. This is compared to fifty-sixty percent reporting this frequency of use when not at school.

After students rated how much they liked doing technology at school, they were asked to explain their choice. For both positive and negative ratings, most of the year 4 responses related to a very general comment. Few student responses were specific to the content of technology or the processes involved in the teaching and learning of technology. However, students who chose a positive rating were more likely to give a more specific comment.

## RESPONSES OF YEAR 8 STUDENTS TO THE TECHNOLOGY SURVEY 2000 (1996)

				
1. How much do you like doing technology at school?	57 (45)	36 (48)	6 (6)	1 (1)
2. How good do you think you are at technology compared to other subjects?	24 (18)	63 (62)	11 (17)	2 (3)
	<i>most days</i>	<i>more than once a week</i>	<i>less than once a week</i>	<i>hardly ever</i>
3. How often do you use a computer at school?	17	30	29	24
4. How often do you use a computer when not at school?	48	22	10	20

Since 1996, year 8 students have stayed positive about doing technology at school, with 93 percent choosing a positive rating in both 1996 and 2000. A difference is seen in the percentage of students choosing the highest rating, with 57 percent making that choice in 2000, compared to 45 percent in 1996. In both years, only seven percent chose negative ratings. Students' perceptions of their expertise in technology compared to other subjects (question 2) are slightly more positive than in 1996, with a 17 percent increase in the two most positive ratings.



Year 8 students reported far greater use of a computer when not at school (70 percent) in the top two categories, compared to when at school (47 percent). Their use of a computer when not at school is higher than for year 4 students, where the corresponding percentage was 56.

Like the year 4 students, most year 8 students chose very general comments when explaining their rating of how much they liked doing technology at school. However, they gave slightly more specific comments relating to the content of technology and the processes involved in the teaching and learning of technology.

The remaining survey questions were open ended, inviting students to give a written or spoken response. For each question, their responses were categorized into several categories, as indicated below.

WHAT IS TECHNOLOGY?	% responses	
	Year 4 2000(1996)	Year 8 2000(1996)
Hi-tech equipment/computers	15 (14)	16 (31)
Making and designing	38 (16)	41 (29)
Learning about equipment	6 (14)	12 (27)
Science	23 (8)	5 (12)
Inventing	7 (6)	8 (20)
Meeting needs, solving problems	5 (4)	14 (16)
Workshop subjects	6 (1)	13 (10)
Other appropriate	12	27

**What is technology?**

At the beginning of the survey, students were asked what they thought technology was. The table below summarises both year 4 and year 8 responses into eight categories.

The most popular category, for both year 4 and year 8 students, was *Making and designing*, with very substantial increases since 1996. Year 4 student responses suggested increased overlap, from 1996 to 2000, between technology and science. The converse was true for year 8 students, who also now distinguished between technology and information technology (computers). Both year 4 and year 8 gave lower prominence to learning about equipment.

### What do you do in technology?

In a related question students were asked what sorts of things their class did when they were doing technology at school. Their responses were categorised into eight categories and are summarized in the table below.

WHAT DO YOU DO IN TECHNOLOGY?	% responses	
	Year 4 2000(1996)	Year 8 2000(1996)
Computers	11 (37)	19 (41)
Making and designing	38 (23)	32 (40)
Learning about equipment	5 (13)	3 (27)
Science or Maths	27 (13)	12 (28)
Solving problems	2 (6)	3 (13)
Doing research	6 (2)	4 (9)
Workshop subjects	17 (2)	64 (36)
Other appropriate	10	16

The two strongest categories for year 4 students were:

- *making and designing* (38 percent of students, increased from 23 percent in 1996)
- *science or maths* (27 percent of students, increased from 13 percent in 1996)

The two strongest categories for year 8 students were:

- *workshop subjects* (64 percent of students, increased from 36 percent in 1996)
- *making and designing* (32 percent of students, down from 40 percent in 1996)

Compared to 1996, many fewer students at both year 4 and year 8 identified computer use with doing technology.

### What sort of technology things do you do in your own time – when not at school?

Students were asked what sort of technology things they did in their own time. Their responses were categorised into six categories. Comparative data for 1996 were not available

For year 4 students —

- *construction* was clearly the most popular category with 40 percent of students responding with a related comment.

The next two most popular activities were:

- *computer* (17 percent of students)
- *electronics* — TV, videogames (12 percent of students).

For year 8 students —

- *construction* was also the most popular category with 54 percent of students responding.

The following two most popular activities were:

- *computers* (40 percent of students)
- *cooking or sewing* (38 percent of students).

### Computer use

COMPUTER USE	% responses			
	Year 4		Year 8	
	school	home	school	home
Publishing	27	10	31	13
Games	58	83	31	80
Research	12	20	37	49
Computer skills	35	14	41	19
Drawing and pictures	12	12	10	6

Students were asked what sort of things they do when using the computer both at school and when not at school. The table below summarises the results, with the responses showing the percentages of computer use when not at school in the column 'home'. For both year 4 and year 8 students, playing games is the most popular use of the computer when not at school.

For year 4 students, playing games is also the most popular use of the computer at school. The second and third most popular activities at school for year 4 students are computer skills and publishing.

When at school, the two most popular activities for year 8 students are computer skills and research. Both activities were more popular at year 8 level than at year 4 level.