

# Ready to Learn? The experiment

This booklet explains the results of a study of children and young people aged between 5 and 16 and some things that may affect their learning – food, sleep and exercise.

The study was carried out by Teachers TV and the Tavistock and Portman NHS Foundation Trust.

We wanted to find out whether things such as how much sleep you have the night before school, whether you ate breakfast or not, and how much exercise you have before school have an effect your ability to learn.

The study was part of National Science and Engineering Week 2008, and encouraged children and young people to take part in research and learn about experiments and results – so as well as being an interesting study pupils learned about science too!

8% of secondary school pupils do not eat breakfast!

This affected their learning



## What we did?

We wanted to test out whether the things mentioned above might affect the way in which your brain works - including things like remembering, being able to change from one way of thinking to another, and being able to organise things.

We used three computer based games and activities which allow us to see how well the pupils are able to do certain things. These games have been developed by psychologists specifically to test for certain brain abilities.

We also asked everyone questions about what they had eaten for breakfast, how much sleep they had the night before and whether they felt tired or rested, and how much and what kind of exercise they had before school that day including how they got to school.

## The children and schools taking part

78,431 children from 682 schools took part in the study! 98% were in the UK, and half the pupils were girls, half boys. 41% were aged 10 and under, and 59% were aged 11 and over.

52% of the schools were primary, 44% of schools were secondary, and 4% were special schools.

## What we found

### Breakfast

Most children and young people do eat breakfast – but as children get to secondary school they eat breakfast less often than younger children...but they need it just as much!

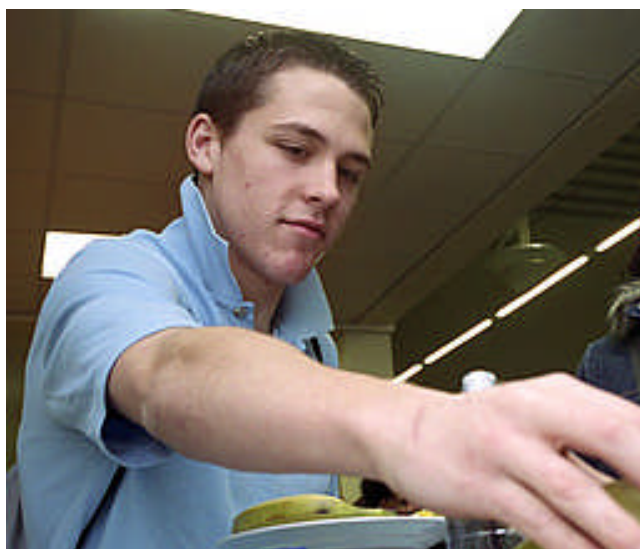
### Rest and Sleep

57% of all secondary school pupils felt tired when they woke up and 17% had not slept well

### Exercise

Secondary school pupils have only half the amount of physical activity before school as younger children!

*"Fizzy sweets and chocolate slow your learning down."*



## Remember

Eating breakfast before you go to school can help you learn! It makes you faster and more able to think...which means you'll have more time to do the other things you enjoy!

## More about your breakfast

We found that eating breakfast had the greatest impact on the pupils' ability to do the computer based games and activities described above.

Some foods seemed to be more helpful than others.

'Unhealthy' foods/drinks were associated with taking longer to complete the test, namely sweets, crisps, chocolate and fizzy drinks.

Those who ate eggs also took longer, as did those who drank tea/coffee.

But pupils who had cereal and toast/bread for breakfast took less time to complete the test, as did those who drank milk and fruit juice.