

# All pupils to be given lessons in climate change

## Children will learn about the dangers faced by the environment - and what they can do about it

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Children will be put on the front line of the battle to save the planet under radical proposals to shake up the way that geography is taught in schools.

The plans, to be published on Monday, will ensure that, for the first time, issues such as climate change and global warming are at the heart of the school timetable. Pupils will also be taught to understand their responsibilities as consumers - and weigh up whether they should avoid travel by air to reduce CO2 emissions and shun food produce imported from the other side of the world because of its impact on pollution.

Details of the new initiative emerged as global warming is thrust to the top of the political agenda today with the publication in Paris of a long-awaited report by the Intergovernmental Panel on Climate Change. Written by more than 2,000 scientists, the report is billed as the most definitive assessment yet of climate change.

Alan Johnson, the Education Secretary, said urgent action needed to be taken to avoid the worst-case scenarios and that educating children about the dangers of climate change was vital. "Children have a dual role as consumers and influencers," he said. "Educating them about the impact of getting an extra pair of trainers for fashion's sake is as important as the pressure they put on their parents not to buy a gas-guzzling family car."

The plans are part of a major review of the secondary school curriculum that will be unveiled by the Qualifications and Curriculum Authority, the Government's exams watchdog, next week. They follow criticism of the way schools have addressed the issues of climate change and global warming from - among others - the Royal Society of Chemistry.

Dr Richard Pike, its chief executive, warned only last month that textbooks were out of date and barely covered the issues. As a result, lessons on the topics were full of "omissions, simplifications and misrepresentations".

Under Monday's blueprint, education for sustainable development - covering issues such as energy saving and recycling - will be a compulsory part of the curriculum.

The blueprint, which covers the way lessons for 11- to 14-year-olds will be taught, is designed to ensure the curriculum includes topics relevant for the modern world. It will come into force from September 2008.

"The proposed changes are part of a new flexible curriculum which will give teachers more scope to bring in topical issues relevant to today's changing world," a spokesman for the Department for Education and Skills said. "Ministers want to enthuse children about subjects like geography."

Other topics to be studied include looking at the impact of the Asian tsunami and Hurricane Katrina.

Mr Johnson said: "It is inconceivable that young people growing up today should not be taught about issues like climate change - it has enormous relevance to their lives. Children not only learn about our future, they shape it.

"No one should consider geography boring - it is one of the most dynamic and exciting subjects children can study today."

Mr Johnson stressed that - in addition to the new emphasis on climate change - pupils would still be taught core aspects of geography, such as how to use maps and atlases and the location of key places in the world.

Maths experts have warned meanwhile that a shake-up of the mathematics GCSE will leave pupils unprepared to study the subject at A-level.

Ministers are planning to introduce two GCSEs - a compulsory GCSE indicating that a pupil has developed functional skills in maths, and a second, more advanced GCSE.

The Advisory Committee on Mathematics Education, an independent committee based at the Royal Society, warned that - without a clear expectation that the majority of youngsters will take both - some pupils will not be exposed to the standard of questions needed to study the subject at A-level. Professor Margaret Brown, a committee member, said: "The Government should send a strong signal to schools, teachers and parents that most pupils should expect to study both of the maths GCSEs."

Mr Johnson is expected to order schools to look at issues such as global poverty and how to overcome it.

Officially, the proposals go out for consultation on Monday but ministers are eager that plans to enable schools to debate topical concerns go through. "Serious threats to the planet will remain if we don't take further action," Mr Johnson said.

Monday's announcement will also include reviews of how every other subject in the curriculum should be tackled in future.

As part of changes to PE, children will be taught about the dangers of heart attacks and high cholesterol.

### **The new topics children will study**

- \* Climate change - the impact on pupils, the UK and the rest of world.
- \* Children's responsibilities - whether to travel by aeroplane or buy food from the other side of the world, and the impact of purchasing a gas-guzzling car or buying new clothes or trainers.
- \* The impact of the south Asian tsunami and Hurricane Katrina.
- \* Sustainable development - the importance of recycling waste products and saving energy.
- \* Global warming - impact of rising sea temperatures and melting ice caps.
- \* Fieldwork projects - such as studying ways to regenerate east London during preparations for the 2012 Olympics.
- \* Learning to examine individuals' carbon footprints, and what they