



Memo

To: Science and Technology Committee
From: Ian Pearson, General Manager, School Travel Forum
Date: May 2011
Re: Inquiry into practical experiments in school science lessons and science field trips

I. Executive Summary

The School Travel Forum (STF) welcomes the Science and Technology Committee's inquiry into practical experiments in school science lessons and science field trips. In this submission the STF would like to highlight the benefits of outdoor education in enhancing a student's engagement with the science curriculum, while also raising concerns about the decline in science field trips in recent years as a result of bureaucratic health and safety burdens on schools as well as inadequate initial teacher training. We would also like to bring to the committee's attention that by working with the School Travel Forum schools can overcome the health and safety barriers and bureaucratic burdens involved in arranging outdoor learning experiences.

In this submission we have used our experience to highlight the following areas:

- The benefits of outdoor education in improving educational attainment.
- The importance of field trips in encouraging pupils to become the scientists of the future.
- The worrying decline science field trips in recent years due to health and safety concerns and bureaucratic procedures which restrict teachers from organising school trips.
- The importance of removing barriers which restrict the effective delivery and implementation of outdoor education and science field trips.
- The need to improve initial teacher training in regard to outdoor education to encourage the use of this teaching method, particularly in the science disciplines.
- The need to introduce an individual entitlement within the National Curriculum to at least one out of school visit a term, including for those from deprived backgrounds via the Pupil Premium.
- The role of the STF in supporting schools undertaking outdoor learning experiences and as an Awarding Body for the Learning Outside the Classroom (LOtC) Quality Badge in supporting schools to deliver effective and safe science field trips.

2. About The School Travel Forum

Since its inception in 2003 the School Travel Forum has won widespread recognition and support for the way it simplifies and provides essential reassurance for leaders looking to organise study, sports and ski trips. The

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STF, which includes the major companies in the school travel business, has estimated that around 40% of all school visits are organised through our members. Our members are required to adhere to a rigorous Code of Practice and Safety Management Standards and are externally verified each year by a leading Health and Safety Consultancy. Founded in 2003, the School Travel Forum is a democratic, not for profit organisation of leading school tour operators that promotes good practice and safety in school travel.

Our Objectives include:

- Promoting best practice in educational school travel and support the principles established by the Learning Outside the Classroom Manifesto
- Designing and promoting sector-specific standards that will be periodically reviewed and adapted to reflect changes in education, health and safety legislation and any other relevant influence.
- Ensuring the needs of schools and teachers are understood and adopted into our standards by regularly meeting bodies such as the Learning Outside of the Classroom Council (LOtC), the Department for Education (DfE), the Outdoor Education Advisors Panel (OEAP), Head Teacher Associations and Teacher Unions.
- Ensuring that independent assessment of travel companies offering educational travel in line with the requirements of the LOtC Quality Badge and the STF Code of Practice.
- Providing a forum for members to discuss non-competitive issues of common interest and concern.

3. Background to Outdoor Education

Benefits

The known benefits for pupils of learning outside the classroom are many and varied. They include: improved engagement and attendance; the development of learning and thinking skills; and the strengthening of personal, social and emotional development (e.g. confidence, self-reliance, and management of risk). School trips are becoming increasingly recognised as an important, irreplaceable part of understanding your subject in the real world, as well as being an excellent opportunity for team building and personal development. Evidence also suggests that low attainment can frequently be linked to a lack of engagement in the teaching style, making it vital for schools to examine and use a wider and more flexible range of teaching methods, such as outdoor education, to engage all pupils, particularly those who are at risk of becoming NEET. Ofsted strongly supports the value of outdoor learning experiences as part of a full and rounded education, noting that when well planned and executed, learning outside the classroom “contributed significantly to raising standards and improving pupils’ personal, social and emotional development”¹.

The STF believe that outdoor learning and fieldwork should be a vital element of an imaginative and contemporary science education. Hands-on practical science is known to stimulate and inspire and

¹ Ofsted, *Learning Outside the Classroom: How far should you go?* (October 2008)
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effectively-planned and well-taught fieldwork is a particularly powerful approach which helps to improve education standards². It helps students to develop their understanding of science as an evidence-based discipline and to acquire the hands-on experimental skills that are an essential part of science work. Furthermore, and often most importantly, out-of-classroom activity provides an exciting and memorable experience for young people and 77% of teachers feel it to be a more effective teaching method in terms of motivating and enthusing students³. In addition, a recent report by the Public Accounts Committee on science education found that a pupils' desire to continue studying depends largely on whether they enjoy and are engaged by the subject⁴. Therefore science fieldwork is a vital way to encourage pupils and students to undertake further science study and encourage them to become the scientists of the future in order to contribute to UK economic growth.

Decline

However despite the benefits, fieldwork provision in science is declining in British schools. More than 96% of GCSE science pupils will not experience a residential field trip, while nearly half of all A-level biology students will do no field work, with the possible exception of half a day's experience near their school⁵. A recent survey by the Association of Teachers and Lecturers (ATL) concluded that children have fewer opportunities to learn outside the classroom than in the past, noting that 17% had not taken their pupils on school trips in the last 12 months.

This is at a time when many studies have indicated a major decline in positive attitudes from students towards science. Young people at secondary school generally see less relevance in science to the real world, find it less inspiring, enjoy less practical work and feel they have less opportunity to use their imagination. Students are 'turning off' science and more work is needed to ensure that students are inspired and to enable the UK to develop a rich source of skilled scientists so vital to the future of the British economy. Outdoor education clearly has a role to play in engaging students and helping them become the scientists of the future.

The former Children, Schools and Families committee conducted an inquiry into Transforming Learning Outside the Classroom in 2010 which warned about the lack of growth in recent years in the number of trips and visits offered by schools⁶. The report also found that pupils from poorer areas are still much less likely to access school trips and argued that there is a danger of children becoming "entombed" in their homes. The committee concluded that:

- Funding to support outdoor learning related initiatives has been derisory.

² National Foundation for Educational Research (2004)

³ TeacherVoice survey on behalf of the Council for Learning Outside the Classroom (2010)

⁴ The Public Accounts Committee, *Educating the Next Generation of Scientists* (2011)

⁵ School Science Review, 2003

⁶ Children, Schools and Families Select Committee, *Transforming Education Outside the Classroom* (March 2010)
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- Teachers' fears over health and safety litigation, making them reluctant to offer trips and visits, have not been effectively addressed.
- Teacher training continues to pay scant attention to giving new teachers the skills and confidence to lead school trips and visits.
- The new 'rarely cover' provisions have led to many schools cutting back on opportunities for pupils and teachers.

4. Health and Safety in Outdoor Education

The STF believes that the safety of children and young people is the most important priority but that there should always be opportunities for young people to experience outdoor learning. However, in our experience, health and safety concerns and other timely bureaucratic procedures are preventing teachers from delivering an enhanced curriculum through outdoor education. Therefore the STF would like to highlight the importance of removing the barriers which restrict the effective delivery and implementation of science fieldwork as well as outdoor education in general. The Government must address these issues if it is to reverse the decline in science fieldwork and raise educational attainment through enhanced outdoor learning experiences.

In recent years the STF has also found that the “rarely covers” guidance has had a significant impact on all the uptake of outdoor learning experiences. As you may be aware, the Government have an agreement with teaching unions which states that teachers must only ‘rarely cover’ for absent colleagues, and in unforeseen circumstances. School trips are considered to be planned absences. Unfortunately there is evidence emerging of outdoor learning activities being cancelled due to the ‘rarely cover’ provisions. We support the view expressed by Anthony Thomas, Chairman of the Council for Learning Outside the Classroom, that young people are becoming “entombed” indoors at least partly due to the “rarely covers” guidance.

In addition, the STF are concerned about the small rise in the number of compensation claims resulting from outdoor activities. It is our understanding that a limited compensation culture has emerged in recent years. However, the public perception of a compensation culture has been greatly inflated through media coverage. The experience of the STF suggests that there is an unnecessary and disproportionate level of risk averseness, particularly among public bodies in the education sector, with which we have most contact. In some cases the approach is to avoid all activities perceived as ‘risky’, to the detriment of children’s experiences of out-of-classroom activity and real-world experience. A recent survey revealed that 46% of teachers placed health and safety concerns, including risk assessment, paperwork and fear of litigation, as one of the most significant barriers to learning outside the classroom, second only to cost⁷.

We would also like to bring to your attention that by working with the STF schools can overcome the health and safety barriers and bureaucratic burdens involved in arranging school trips. Anecdotal evidence has pointed to a decline in outdoor learning at the school level due to a fear of litigation after accidents and the

⁷ Opinion Matters survey on behalf of TUI Travel PLC (2010)

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time commitments for organising trips. Working with the STF schools can overcome these barriers. The STF works to assist schools in identifying external travel providers who deliver good quality teaching and learning experiences and manage risk effectively. This not only reduces the burden on teachers, enabling them to dedicate more time to ensuring a high standard of teaching and learning, but also helps schools to make savings through more effective procedures, ever more important in the current fiscal environment. We welcome the findings of Lord Young's Review and his proposals to simplify the process that schools and other organisations undertake before taking children on outdoor learning experiences. We look forward to working with the Government to implement these proposals and make it significantly easier for children and young people to undertake outdoor learning experiences.

STF members are required to adhere to a rigorous Code of Practice and Safety Management Standards and are externally verified each year by a leading Health and Safety Consultancy. However, only 40% of all school visits are organised through our members so there are hundreds of schools trips taking place every year where there is no guarantee of quality or health and safety. We would like to see the Government do more to highlight the work that organisations like the STF do in promoting health and safety and challenging providers to raise their game in terms of safety management, the learning opportunities that they provide and helping relieve the burden of bureaucracy in schools.

For teachers, membership of the STF provides an assurance that a provider:

- Meets their need for due diligence
- Takes account of the needs of users
- Operates in a healthy and safe environment
- Has an emphasis on 'learning/skills outcomes'

Quality Badge

The STF is one of the Awarding Bodies for the Learning Outside the Classroom (LOtC) Quality Badge which is the self regulation scheme with the widest acceptance. The Quality Badge provides for the first time a national accreditation combining the essential elements of provision – learning and safety – into one easily recognisable and trusted Quality Badge for all types of Learning Outside the Classroom provider organisations. The badge serves an important purpose and helps to promote safety and best practice for outdoor learning providers. Local authorities have previously taken a prominent role in encouraging schools to adopt these standards because they provided a relatively uncomplicated way of ensuring high class provision in outdoor learning as well as meeting health and safety standards. However, the major barrier we have found is that there is a lack of awareness of the badge in schools and we are concerned that this could be further exacerbated by the diminishing role of local authorities in school management. The STF recommends that the Government works to raise awareness of the Learning Outside the Classroom Council and the Quality Badge in their work providing schools with a list of reputable and recommended travel companies, such as the

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members of STF. This will enable teachers to source out these administrative burdens in order to enable them to focus on delivering an effective curriculum through outdoor education.

5. Teacher Training and Outdoor Education

Inadequacy of ITT in equipping teachers with the ability to deliver outdoor education

Any reversal in the decline in science field trips will have to be led by teachers. The capacity and enthusiasm to teach science in an outdoor environment will need to be increased by ensuring a high status for outdoor education in Initial Teacher Training (ITT) which equips science teachers with the necessary skills to take their students into the 'outdoor classroom'.

However, the STF believe that ITT is not working effectively enough to help produce sufficient numbers of science teachers with the competence, confidence and commitment to meet the modern day challenges of teaching fieldwork to the next generation of children and young people. A recent report by Kings College London found that the one of key barriers to learning outside the classroom was a lack of teachers' confidence, self-efficacy and access to training⁸. The report recommended greater support for schools to develop their capacity to integrate activities and resources that promote learning outside the classroom as part of the curriculum. In addition, a report by Association for Science Education (ASE) found that the quantity and quality of training and development within ITT for outdoor education is highly variable and is weakened generally by the absence of any minimum training requirement in this regard⁹.

Under the current Qualified Teacher Status regime trainee teachers are asked only to recognise opportunities for out of classroom learning, however, even this weak standard is not being reached by some ITT providers. Evidence published in the Association for Science Education's secondary science journal in 2009 shows that some trainee science teachers are getting no training in this area at all. The STF believe the absence of adequate training is due to insufficient importance given to this area.

Minimum Standards for ITT in Outdoor Education

The STF is delighted that the Government has asked Sally Coates to review QTS standards and recommends the review strengthen QTS standards. In order to help in securing the future for science fieldwork we would specifically like to see the Government introduce minimum QTS standards for ITT outdoor education and fieldwork training and development. This will help teachers meet the modern day challenges of teaching the science curriculum through high quality outdoor education and encourage the use of this teaching method to

⁸ Kings College London, *Beyond Barriers to Learning Outside the Classroom in Natural Environments* (December 2010)

⁹ Association for Science Education *Outdoor Science Working Group, Initial Teacher Education and the Outdoor Classroom: Standards for the Future* (2011)

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help ensure all pupils and students can actively engage with the curriculum to enable them to achieve the highest possible standards.

Specifically, we feel the Government must ensure that trainee teachers: attend, and have an active role, in a school visit as part of their training and have the opportunity to plan and lead a lesson with pupils outside the classroom as part of their training.

6. Entitlement to Outdoor Education in the Curriculum

The STF is of the view that, to ensure that learning outside the classroom is taken seriously by all schools, there should be an individual entitlement within the National Curriculum to at least one out of school visit a term. We would be flexible on the exact wording of the entitlement but would as a starting point suggest that the entitlement contains an opportunity for all young people to experience at least one significant learning outside the classroom visit during their school years. This will allow all children to access the considerable health, personal development and education benefits that outdoor learning can provide.

Pupil Premium

The STF welcomes the Coalition Government's commitment to a Pupil Premium to provide additional funding for more disadvantaged pupils to ensure they benefit from the same opportunities as pupils from richer families. Outdoor education plays a vital role in enhancing the curriculum and raising education attainment, particular for pupils in some of the hardest to reach groups. We specifically endorse Schools Minister Nick Gibb MP's recent Parliamentary Written Answer which states that "school may in future wish to consider using the pupil premium funding to enable such children to benefit from out of school educational activities." We are aware that the Department for Education is exploring options for supporting disadvantaged pupils and we would like to highlight our concerns about the access that pupils from low income families have to school trips and visits; for these children school provision may be the only opportunity they have to experience different environments from their immediate locality. It will be important for the Department of Education to ensure that outdoor learning experiences are included in Government guidance to schools so that every pupil eligible for the Pupil Premium has the option of using it to fund an outdoor experience, such as a science field trip, to enhance their educational experience.

7. The Role of Ofsted in Supporting Outdoor Education

The lack of a statutory requirement for schools to provide outdoor learning and fieldwork (except in geography) means that Ofsted rarely reports on these aspects, apart from national reviews of outdoor provision. Recent national reports by Ofsted have highlighted weaknesses in the level and quality learning outside the classroom, particularly in secondary schools. School inspections have an important role in boosting the profile and importance attributed to teaching and learning approaches. Going forward, the STF

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would like to see Ofsted inspections include comment on how effectively these are applied outside the classroom as well as within.

8. Contact Details

If you require any further information, please contact Ian Pearson, School Travel Forum, 222 Southbank House, London, SE1 7SJ by telephone 020 7463 0690, or by email:

liane.cresswell@whitehouseconsulting.co.uk