

Together we are road safety

European Road Safety Charter

Call for Good Practices - to enter the selection for the:

Excellence in Road Safety Awards 2016

SECTION 1: INFORMATION ABOUT YOUR ORGANIZATION

	Please fill in here	Instructions
Name of the organization	Police Scotland.	
Type of organization	Police	NGO, company, local authority, school etc.
Organization main activity	Roads Policing providing enforcement and education to benefit road safety for all users in an attempt to reduce casualties on Scotlands road network	Activity field
Country	Scotland	Of the organization
Website	www.scotland.police.uk	Organization website
Contact person	Neil Hewitson	For the follow-up of the application
Contact person's position	Roads Policing Inspector	
Contact person's email address	Neil.hewitson@scotland.pnn.police.uk	
Contact person's phone	01387242208	
Partners in the initiative	Dumfries and Galloway Education Department, Lockerbie Academy, Scottish Scientific Equipment Research Centre, Royal Society.	

SECTION 2: DESCRIPTION OF THE INITIATIVE

	Please fill in here	Instructions
Date of start and end of the initiative	1 May, 2013 and the initiative is still ongoing at this time.	The initiative can be new or the continuity of already existing activities. It can have ended recently or be still in process
Departments/persons implicated internally	Neil Hewitson, Roads Policing Inspector, Police Scotland, Dumfries. Gregor Steele, Director, Scottish Scientific Equipment research Centre, Dunfermline. Jennie Hargreaves, Physics Teacher, Lockerbie Academy, Lockerbie.	In the case of persons, indicate their positions
Geographical scope of the activities	Initially the activities were based solely within Dumfries and Galloway Region, however since the topic was presented at the Royal Society Summer Science Exhibition in London in 2014, there has been a lot of interest shown by teaching professionals through the UK.	Indicate where the activities were implemented
Summary of the initiative	The initiative is designed to be thought provoking for the participating students and is largely aimed at those leaving school who may soon be learning to drive. It takes the form of a lecture given by qualified crash investigators who give an overview of a fatal road crash involving a number of local youths and how mathematics and physics were used to determine the cause of the crash. We have also invested in practical equipment which can be used to create an actual crash scene inside the school where pupils are given limited information and are expected to identify all useful information, including mathematics and physics to work out how the crash happened and who was at fault.	Describe the initiative indicating the subject, its aim and the main activities it involves. Max: 100 words
Innovative character	The input is designed to illustrate to pupils how mathematics and physics can be used in a practical scenario to determine how a crash happened in the first place. The details of the initiative have been published online to allow other educational establishments to use the various scenarios which have been devised.	If applies, describe to what extent the proposed initiative will lead to new approaches and practices Max: 100 words

<p>Issues that are addressed with the initiative</p>	<p>Following on from a high profile fatal crash in the region in which three young people were killed it was felt that more education needed to be carried out to illustrate to young people the dangers of driving fast on the roads network. At the same time the methods used to prove the speed and behaviour of the vehicles prior to the crash were found to be highly pertinent to pupils who were studying maths and physics at school.</p>	<p>Describe which issues were identified that lead to implement the activities</p> <p>Max: 100 words</p>
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<p>Activities developed</p>	<p>Inspector Hewitson attended a Road Safety Conference where he was given an input on road safety education by Gregor Steele of SSERC. As a result of this Inspector Hewitson approached SSERC and offered to give an input to secondary teachers on how they could use equations of motion to illustrate to pupils the practical uses behind learning equations. At the same time a message regarding road safety and the inappropriate use of speed would be re-enforced.</p> <p>Jennie Hargreaves from Lockerbie Academy was interested in the input and made contact with Inspector Hewitson to formulate a teaching plan.</p> <p>A two tier teaching plan was implemented. Firstly Collision Investigators would attend at various secondary schools throughout the Region and give inputs to S5 and S6 pupils on a high profile crash where three young people from the Region were killed as a result of inappropriate speed. They explain to the pupils how the collision happened and the methods used to calculate speeds using maths and physics.</p> <p>Secondly as a result of grant funding from the Royal Society Inspector Hewitson and Mrs Hargreaves were able to purchase various pieces of investigative equipment including scaled vehicles, measuring tapes, laptops etc to instigate a scaled version of an actual collision involving a pedestrian and vehicle.</p> <p>Using the equipment they purchased together with scale plans, witness statements and some mathematical data pupils were asked to work out from the physical evidence left at the 'scene' what speed the vehicle was travelling at prior to the collision and the behaviour of the pedestrian prior to the collision. Booklets were supplied to each pupil for them to work out what had happened.</p> <p>A further more complicated scale plan has also been produced which involves a momentum exchange involving two vehicles when pupils are asked to calculate the speed of the vehicles prior to the collision.</p> <p>The Royal Society recognised the worth of this project and invited Police Scotland and Lockerbie Academy to attend at the prestigious Royal Society Summer Exhibition in London where they presented the project to approximately 15000 attendees including students and teachers, who were given copies of the booklets and advice as to where they could find information about the project on the internet.</p>	<p>Describe all the activities involved in the initiative and where appropriate indicate the participation arrangement for each partner</p> <p>Max: 600 words</p>
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Genesis	As an experienced advanced Crash Investigator I am of the opinion that this is an innovative way of teaching students about the practical application of mathematics and physics and at the same time highlights the many issues surrounding speed and road safety in an effort to reduce the number of injury crashes involving young people.	Reasons why you chose this initiative Max: 100 words
Transferability and multiplier effect	The project is currently being spread around all the Secondary schools in Dumfries and Galloway Region. In addition SSERC promotes the project nationally amongst all teachers who attend there to carry out experimentation work. As I have already stated the Royal Society Summer Science Exhibition allowed the initiative to be presented to approximately 15000 persons from throughout the UK and abroad. The study booklets to enable the scenario to be calculated have been made available for free online for any teacher to use in a classroom scenario. All of the equipment supplied by the Royal Society is portable and can be transferred to any school easily.	Describe to what extent the proposed initiative will allow the transfer, general spread, dissemination or application of the results, experience, knowledge and good practice on a large scale Max: 200 words
Promotion and dissemination	An article has been printed in the Young Scientist magazine for 2015 describing the project. This magazine is distributed worldwide and fully explains the concepts involved in the initiative. The initiative is promoted through schools in Dumfries and Galloway and also in schools throughout Scotland via SSERC.	Describe whereby the initiative will be publicised (publications, organised events, websites, CD-ROM, etc.). Max: 100 words
Continuity	The initiative will continue for the foreseeable future. The information contained therein will not date. I hope to be able to publish more crash scenarios in the future which will potentially be aimed at younger students.	Indicate if there is a plan to continue some activities in the coming years Max: 100 words

<p>Evaluation of the activities</p>	<p>An evaluation has been carried out of the initiative using school pupils in Dumfries and Galloway. This was done using survey monkey and was evaluated highly in terms of ease of use and understanding together with the impact it may have on the young people as drivers in the future.</p>	<p>If relevant, describe the proposed evaluation method and the quality of the result indicators in relation to the expected objectives</p> <p>Max: 100 words</p>
<p>Other important aspect that you want to underline</p>		<p>Any information that could help the jury to chose your initiative</p> <p>Max: 100 words</p>