



# The Science of Noise Donington Park

3 dates to choose from



## About the event...

- A full day course – A unique learning opportunity in an exciting environment
- Exploration of sound and noise in a motor sport context
- Hands-on experience with noise measuring equipment **in the paddock!**
- Face to face meetings and interviews with track users and circuit personnel
- Gain an understanding of why motor sport regulates noise
- Handle high quality materials supplied by leading manufacturers
- Design the **‘silencer of the future’**
- Final task – A presentation to the other groups, circuit and school staff

**“Why will your silencer design appeal to competitors, track personnel and the wider community?”**

<b>Who is it for?</b> Students from 10 to 13 yrs	<b>How much does it cost?</b> £45 per student	<b>How many places are there?</b> 36 on each day
<b>Dates</b> 28th June, 5th & 14th July	<b>Venue</b> Donington Park, Leicestershire	<b>Timing</b> 0900 – 1600 or 0930 – 1630 (Travel dependent)

"It was fascinating. I learnt plenty, had lots of fun and made a few new friends. It was great!"  
**Thomas Milner (aged 10)**

### **Pupils will need to bring on the day**

Packed lunch / drinks / Pens & Paper / Comfortable & practical footwear  
Depending on the weather - Sunglasses / Cap / Sun protection lotion / Waterproof Coat

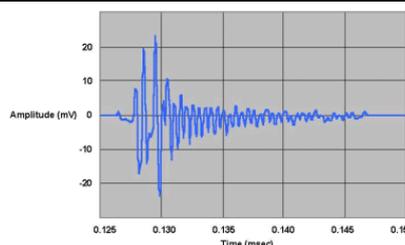
**Schools will need to arrange transport to and from venue**

*(Appropriate safeguarding measures apply)*

### **How can I book places for my students?**

Expression of interest with student numbers & preferred event date to  
[mfooster@fpconsultants.com](mailto:mfooster@fpconsultants.com) or apply to Diane.Hinchley@derbyshire.gov.uk  
([www.derbyshire.gov.uk/workingwithchildren](http://www.derbyshire.gov.uk/workingwithchildren))

**Students from outside Derbyshire welcome**



<b>Course:</b>	<b>The Art of Noise</b>
<b>Age Range of Children:</b>	10 – 13 years
<b>Number of Students:</b>	Up to 36 per event (six groups work in collaboration with a supervisor)
<b>Location:</b>	Donington Park, Leicestershire.
<b>Personnel :</b>	1 x Motorsport Expert, up to 5 supervisors

#### **Brief Outline of the Course:**

The course introduces students to the science of noise and what noise means to different people in different contexts. Students will use the facilities at a motorsport venue where the subject is brought vividly to life and the consequences of inappropriate noise are severe.

Students will have the opportunity to use noise meters and take noise measurements. Once the students are familiar with the operation of the meters they will experiment with materials within the immediate environment to ascertain the effect of distance and different materials on noise levels. Utilising activity on the track the Doppler effect will be demonstrated.

Students will participate in a series of experiments and investigations, including measuring the noise generated by vehicles passing at speed on the track and idling in the paddock, to build on the knowledge gained earlier in the day to further deepen their understanding of the effect of distance, wind and natural sound barriers. Through interviews with circuit staff and riders/drivers, students will learn how different user groups view noise and how their activities are influenced by it. The issue of noise and its impact on the local community will be explored in depth.

Students will have the opportunity to intellectually problem solve the silencer of the future, drawing on their experiences across the day plus the needs of the local community, the circuit and the racers that they interviewed earlier.

#### **Educational Validity:**

The course has been written in line with the Ofsted focus on student progress in Years 7 to 11 and in particular on the Ofsted requirement that pupils 'develop and apply a wide range of skills to great effect in reading, writing, communication and mathematics'.

It supports a rich and relevant curriculum and contributes to outstanding learning and achievement. By encouraging students to become socially aware of the effect of noise and its impact on different elements of the wider community it leads to growth in student's knowledge. This is very much in tune with the latest Subsidiary Guidance from Ofsted:

- *Inspectors should investigate the impact of the curriculum on the pupils' spiritual, moral, social and cultural (SMSC) development. This may be seen through the opportunities created by the school for pupils to take part in a range of social, scientific, technological events and activities that promote aspects of pupils' SMSC development.*
- *When considering how well the school promotes pupils' SMSC, inspectors should take into account the impact of the range of opportunities provided for them to develop their self-esteem and confidence, as shown by their:*

- *Sense of enjoyment and fascination in learning about themselves, others and the world around them, including the intangible*
- *Use of imagination and creativity in their learning*
- *Willingness to reflect on their experiences*
- *Interest in investigating, and offering reasoned views about, moral and ethical issues*
- *Willingness to participate in a variety of social settings, including cooperating well with others and being able to resolve conflicts effectively*
- *Willingness to participate in, and respond to technological and scientific opportunities*

The course promotes positive attitudes to learning as students learn to observe the world around them from a different perspective and demonstrates to them how observation and measurement can assist the creative process and produce informed opinion.

### **I'm interested – What now?**

1. Contact Course Provider – 07966 753890 or email [mfoster@fpconsultants.com](mailto:mfoster@fpconsultants.com) or
2. Express interest, give school name, main contact details, likely numbers and preferred date(s).  
(Each course requires sufficient numbers to run and will depend on sufficient expression of interest)

### ***Any queries, please contact either:***

Course Provider (see above) or apply to [Diane.Hinchley@derbyshire.gov.uk](mailto:Diane.Hinchley@derbyshire.gov.uk)  
([www.derbyshire.gov.uk/workingwithchildren](http://www.derbyshire.gov.uk/workingwithchildren))