

Years 5/6 pupils – Scalextric Science Lab

| Date of course | Times | Venue | Cost | Max. places | Subject |
|---|-------------------------|------------------------------|------|-------------|-----------------|
| Tuesday 1 st and Wednesday 2 nd February 2022 | 10am – 4pm Both Days | Braeside Education Centre | £100 | 16 | Science AGAT |

Course details

Formula 1 racing meets the classroom on this action-packed and educational 2 day course. OK.....let's be honest for a moment.....you are going to have a great time playing with Scalextric, but at the same time conducting a high-level exploration into maths, physics and ICT. Your first challenge will be to plan a Scalextric layout, working in a small group. How do you ensure that the racing lanes are of equal length? The cars are 1/32 scale, but how fast would they be travelling if they were full size? How do you keep the cars on the track – is it driving skill or physics? The various groups' track designs will be put to the vote and the winning layout built in readiness for an evening of qualifying racing on Saturday. The latter part of the course concentrates on the new Scalextric Digital format which allows six cars to race simultaneously using state-of-the-art electronics. We will explore how the track and cars form a computer network and communicate with each other using binary data.

Guidance criteria for identifying participants:

- Pupils should have an interest in physics and an enquiring mind.
- Pupils will need to be able to work confidently, both individually and in small groups.
- Pupils must show the aptitude to translate theory into a practical application.
- Pupils must want to share the academic and practical challenges of the course – and the fun!

Course tutor

Adrian Dening has over thirty years' experience in delivering science courses for Able, Gifted and Talented students. He offers a wide range of topics exploring electronics, ICT, space science and even spying! He is a keen Amateur Radio enthusiast and astronomer. Adrian is an Approved Driving Instructor and member of the Chartered Institute of Personnel and Development. His G&T courses are challenging, with a balance between theory at a high academic level and fun practical exercises to consolidate what has been learnt. All courses include the assessment of written work and note-taking, providing the basis of feedback to parents. The courses involve a mix of individual and group activities and students are actively encouraged to explore different learning styles, take responsibility for their own time management and think "outside the box". A full portfolio of Adrian's courses is available at <http://www.AdrianDening.com>

As a result of attending the course you will have:

- A greater understanding of physics and ICT.
- Become familiar with different numbering systems such as binary and hexadecimal.
- Worked successfully in a group with your peers, experiencing leadership and negotiation skills.
- Enjoyed new challenges and shared your knowledge with new like-minded friends.

Students should bring:

- Pencils / pencil case
- Water bottle
- Clothes suitable for outdoor play

Lunch and refreshments will be provided.

School uniform is not required.

No mobile phones.