

Cambridge Physics Centre goes online – Information for teachers

<https://outreach.phy.cam.ac.uk/programme/cpc>

Cambridge Physics Centre (CPC) is run by a group of physics teachers, academics, and outreach staff from the University of Cambridge. For almost 40 years, CPC has delivered a series of six physics lectures for sixth form students (16, 17 and 18-year-old) during the autumn and spring terms of each year. The lectures typically draw audiences of 250 people and occasionally fill the 450-seat Pippard Lecture Theatre at the Cavendish Laboratory. The lectures are supported by the Cavendish Laboratory, which provides the lecture theatre, and, financially, by the Eastern Region of the Institute of Physics. We thank these generous sponsors.

For the 2020-21 season, we cannot hold these events as traditional public lectures; instead they will be livestreamed in collaboration with the Isaac Physics project. We have a great opportunity to extend the reach of our lectures to people who cannot make the trip to Cambridge on a school night.

Historically, a few schools found it difficult to arrive in good time for the start of the lecture; traffic problems both in and around Cambridge played a significant role in this. To encourage timely attendance, we began offering tea, coffee, and high-quality biscuits to early arrivals. At the same time, the Isaac Physics team began offering a physics quiz based on their free physics learning platform to ensure our sixth form audience was constructively occupied as they waited for the lecture.

The physics quiz, tacked on to tea and biscuits as an afterthought, became an important part of the occasion in its own right. The quiz provided students with an opportunity to chug through Isaac Physics problems in an informal and social setting under guidance from the Isaac Physics team, and committee members were keen to see this element continue online.

The fixtures list for the 2020-21 lectures can be found at <https://outreach.phy.cam.ac.uk/programme/cpc>, together with posters to publicise the event, the risk assessment for this online activity and instructions for registration and joining. The timetable for each lecture will be:

- **1600** Livestream and Isaac Physics Quiz open
- **1600-1655** Students work on Isaac Physics problems with occasional interventions from the Isaac Physics team
- **1655-1700** Very short break
- **1700** Speaker is introduced by the event chairperson
- **1701** Lecture
- **1750** Event chair reads questions sent in in text format by the audience; lecturer answers them
- **1800** Lecturer is thanked; winner of the Isaac Physics quiz is announced
- **1801** Event ends
- **Next day:** a modest prize of physics books is sent to the quiz winner

We hope to add breadth to your students' study of physics, to plant ideas for future careers and to entertain our audiences. Unfortunately, due to COVID restrictions, you will have to provide your own tea and biscuits!