

London International Youth Science Fortnight

**1985**

## London International Youth Science Fortnight

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1959-1969

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Founded by the late Philip S. Green, MBE in 1959, the Science Fortnight aims to give a deeper insight into science and its applications for the benefit of mankind and to develop a greater understanding between young people of all nations.

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National Union of Teachers

*\*Members of the working group which  
plans the programme of the Science  
Fortnight.*



10 DOWNING STREET

THE PRIME MINISTER

Now is a most exciting time to be a young scientist. You can look back with admiration on the impressive achievements of recent years, but more important you can help build on these achievements and look forward to the opportunities and challenges which will face scientists of your generation. I believe that we are on the threshold of some tremendous advances in understanding and achievement, in fields as diverse as the origin of the universe, the understanding of genetic material, and the development of new materials.

But the scientist of tomorrow will be faced not only by the challenges of the science itself, but also by the responsibilities to exploit the new knowledge for the benefit of mankind and to explain to society what science is and what it can achieve. We cannot yet know what will be the implications of tomorrow's discoveries, but we can be confident that they will provide the means of obtaining further benefits for mankind - the improvement of agriculture, the understanding and treatment of disease, the protection of the environment, and the economic growth of our societies.

Many of the major scientific challenges of today and tomorrow can only be faced by international collaboration, because of the global nature of the problems which we look to science to help solve and because of the scale of the resources which may be needed to tackle these problems. However, scientists have always been international in their outlook and I am confident that the new generation of scientists, which you represent, will rise to the increasing challenges.

I hope that the next two weeks are stimulating and enjoyable and that the admirable aim of the Science Fortnight - to give a deeper insight into science and its applications for the benefit of mankind and to develop a greater understanding between young people of all generations - is fulfilled. It gives me great pleasure to welcome you, on behalf of Her Majesty's Government, to London.

## Acknowledgments

The Science Fortnight expresses grateful thanks to all who have generously assisted in the organisation of the Twenty Seventh meeting, and in particular to

The Foreign and Commonwealth Office for its guarantee against loss.

The Consultative Council for its advice, and the Working Group for its assistance with the planning of the programme.

The Council and Staff of the Institution of Electrical Engineers for providing premises and facilities for lectures and meetings.

The Speakers, Lecturers, Chairmen and Discussion Group Leaders, whose contribution is invaluable.

The many industrial companies, research establishments, university departments, museums etc which welcome participants for visits and lectures.

The Wardens, Bursars and Staff of the Halls of Residence providing accommodation and meals and the University of London Union for the use of its facilities.

The British Association for the Advancement of Science, for advice on programme planning and other matters through the good offices of Miss Joan H. Dring.

The United Kingdom Local Education Authorities, Schools and Colleges, who have met the whole or part of the fees for students from Britain.

Those who grant scholarships to make possible the participation of students from overseas, including British Airways, The British Council, the United Kingdom National Commission for Unesco, Barclays Bank International and many others.

## Industrial, Commercial & Other Sponsors

Special thanks are due to the following who have helped to make possible the attendance of students from the United Kingdom (list compiled on 1 May, 1985, and therefore incomplete)

D L Aitchison Trust  
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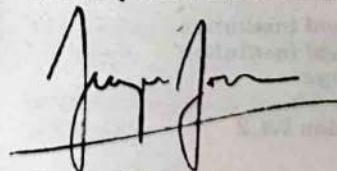
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## Twenty Seventh London International Youth Science Fortnight 24 July to 8 August, 1985

In his introduction to the First London International Youth Science Fortnight which took place in 1959, the late Philip S Green suggested to the participants that "they might be taking part in an event that will develop into a great annual scientific occasion." He was correct in his prediction . . . this summer more than thirty nations will send the three hundred or so participants who will form the 1985 Science Fortnight.

In that first message, Philip Green also wrote "... In the years that lie ahead of us, economic forces are likely to dictate the sort of world in which we shall live. To the scientific and technical brains will come 'power beyond the dreams of Kings' . . . Somehow or other we must ensure that scientific and technical knowledge which man has at his disposal in the modern world is put into the hands of the right men and women so that the foundation is laid for a great society in which culture will be available to all human beings."

Opposition belongs to all ages. But over everything that can separate them men have always and everywhere tried to build bridges. The Science Fortnight aims to do just that, believing it to be the basis for a better and safer future, and to be a step towards fulfilling the hopes of Philip Green whose concept remains the inspiration for our meeting more than a quarter of a century later.



George McGowan  
Director  
London International Youth Science Fortnight.

Philip S Green MBE died in 1984.  
The Lecture on the evening of Thursday 1 August  
will be dedicated to his memory.

# DAILY PROGRAMME

Wednesday 24 July	20.00	Arrivals Orientation & Briefing in Halls of Residence
Thursday 25 July	11.00	*Opening Ceremony
	14.15	*Lecture/Demonstration: 'Energy through Chemistry'
	20.00	Welcome Disco at the Empire Rooms
Friday 26 July		Half Day Visits to Research and Industrial Establishments
	20.00	Student Topics at University College
Saturday 27 July	10.00	*Lecture: 'The Third Age'
	14.15	Optional Half Day Sightseeing Tour of London
	16.30	Inter Hall Swimming Gala at University of London Union
		Optional Theatre and Concert Visits
Sunday 28 July	09.00	Optional Day Excursion to Stratford upon Avon
	20.00	Feature Film at University College 'To Be or Not to Be'
Monday 29 July	10.00	University Lectures
	14.15	*Lecture/Demonstration: 'How Computers See'
	20.00	Student Topics at University College
Tuesday 30 July	20.00	Day Visits to Research & Industrial Establishments 'Topics for Tonight' Discussions in Halls of Residence
Wednesday 31 July	10.00	Seminars
	14.15	Lecture/Demonstration at the Royal Institution 'Famous Experimenters in the Royal Institution'
	20.00	Student Topics at University College

\*at the Institution of Electrical Engineers Savoy Place, London WC2

Thursday 1 August	08.00	Depart for Day visits to Cambridge & Oxford
	10.00	Visits to University and Industrial Research Establishments
	12.45	Lunch at Downing College (Cambridge)
	14.15	Lunch at St Catherine's College (Oxford)
	20.00	City and University College Tours
		*Lecture: <i>In Memoriam Philip S Green, MBE</i>
		<i>'The Radio Active World'</i>
Friday 2 August	10.00	Visits to Natural History and Science Museums at South Kensington
	20.00	International Evening at Manning Hall University of London Union
Saturday 3 August	10.00	*Lecture/Demonstration: 'Luminescence'
	14.15	Inter-Hall Rounders in Regent's Park
		Optional Theatre and Concert Visits
Sunday 4 August	09.00	Optional Day Excursion to Hampton Court Palace & Windsor Castle
	20.00	Feature Film at University College 'Porky's II'
Monday 5 August	10.00	*Participants' Forum I
	14.15	*Question Time with Members of Parliament
	20.00	Feedback: <i>A critique of the Science Fortnight</i>
Tuesday 6 August	10.00	*Participants' Forum II
	14.15	*Closing Ceremony
	20.00	Farewell Disco at the Empire Rooms
Wednesday 7 August		Departures

With the exception of the Lecture on 1 August events taking place after 18.00 are optional.

# DAILY PROGRAMME

Wednesday 24 July	20.00	Arrivals Orientation & Briefing in Halls of Residence
Thursday 25 July	11.00 14.15 20.00	*Opening Ceremony *Lecture/Demonstration: 'Energy through Chemistry' Welcome Disco at the Empire Rooms
Friday 26 July		Half Day Visits to Research and Industrial Establishments
	20.00	Student Topics at University College
Saturday 27 July	10.00 14.15 16.30	*Lecture: 'The Third Age' Optional Half Day Sightseeing Tour of London Inter Hall Swimming Gala at University of London Union Optional Theatre and Concert Visits
Sunday 28 July	09.00 20.00	Optional Day Excursion to Stratford upon Avon Feature Film at University College 'To Be or Not to Be'
Monday 29 July	10.00 14.15 20.00	University Lectures *Lecture/Demonstration: 'How Computers See' Student Topics at University College
Tuesday 30 July	20.00	Day Visits to Research & Industrial Establishments 'Topics for Tonight' Discussions in Halls of Residence
Wednesday 31 July	10.00 14.15 20.00	Seminars Lecture/Demonstration at the Royal Institution 'Famous Experimenters in the Royal Institution' Student Topics at University College

\*at the Institution of Electrical Engineers Savoy Place, London WC2

Thursday 1 August	08.00 10.00 12.45 14.15 20.00	Depart for Day visits to Cambridge & Oxford Visits to University and Industrial Research Establishments Lunch at Downing College (Cambridge) Lunch at St Catherine's College (Oxford) City and University College Tours *Lecture: <i>In Memoriam Philip S Green, MBE</i> <i>'The Radio Active World'</i>
Friday 2 August	10.00 20.00	Visits to Natural History and Science Museums at South Kensington International Evening at Manning Hall University of London Union
Saturday 3 August	10.00 14.15	*Lecture/Demonstration: 'Luminescence' Inter-Hall Rounders in Regent's Park Optional Theatre and Concert Visits
Sunday 4 August	09.00 20.00	Optional Day Excursion to Hampton Court Palace & Windsor Castle Feature Film at University College <i>'Porky's II'</i>
Monday 5 August	10.00 14.15 20.00	*Participants' Forum I *Question Time with Members of Parliament Feedback: <i>A critique of the Science Fortnight</i>
Tuesday 6 August	10.00 14.15 20.00	*Participants' Forum II *Closing Ceremony Farewell Disco at the Empire Rooms
Wednesday 7 August		Departures

With the exception of the Lecture on 1 August events taking place after 18.00 are optional.

## Speakers at the Institution of Electrical Engineers

Thursday 25 July	11.00	Opening Ceremony Speakers include: The Rt Hon Lord Briggs, MA BSc FBA DLitt DSc LID Dr Richard O'Kennedy, PhD National Institute of Higher Education, Dublin
	14.15	Lecture/Demonstration: 'Energy Through Chemistry' Dr D.R. Marshall, BSc, PhD (St Andrews), DPhil (Oxon) Department of Chemistry, University College of North Wales
Saturday 27 July	10.00	Lecture: 'The Third Age' Professor Sir Ferguson Anderson OBE KStJ MD FRCP FACP
Monday 29 July	14.15	Lecture/Demonstration: 'How Computers See' Paul Redstone, MA Logica Space and Defence Systems Ltd
Wednesday 1 August	14.15	*Lecture/Demonstration 'Famous Experimenters at the Royal Institution' Sir George Porter, FRS Director and Fullerian Professor of Chemistry The Royal Institution
Thursday 1 August	20.00	Lecture: <i>In Memoriam Philip S Green, MBE</i> <i>The Radio Active World</i> Professor J R A Lakey BSc PhD FinstP FINucE CEng Department of Nuclear Engineering Royal Naval College, Greenwich
Saturday 3 August	10.00	Lecture/Demonstration: 'Luminescence' Dr T F Palmer, BSc PhD Department of Chemistry University of Nottingham
Monday 5 August	10.00	Participants' Forum I Theme: 'For What Use is Science if Mankind does not survive?'
	14.15	Question Time with Members of Parliament Speakers include: Andrew Bowden, MBE MP (Conservative) W E Garrett, MP (Labour) Stephen Ross, MP (Liberal)
Tuesday 6 August	10.00	Participants' Forum II
	14.15	Closing Ceremony

\*at the Royal Institution, 21 Albemarle Street, London W1X 4BS

## University Lectures

Monday 29 July	10.00	Group 1 'Achievements with Anti matter' Richard Ansorge, MA PhD Cavendish Laboratory University of Cambridge
		Group 2 'Challenging Problems for Today's Applied Mathematicians' Professor John Crank, MSc DSc FinstP FIMA
		Group 3 'From acid rain to fuel cells — some novel aspects of catalysis' David Brynn Hibbert, BSc PhD(London) CChem MRSC Department of Chemistry Royal Holloway & Bedford Colleges
		Group 4 'Breast Cancer — Prevention or Cure?' Clive Wells MA MB BChir assisted by Kay Bartrop Department of Histopathology University of Oxford
		<b>Seminars</b> Participants are allocated to each seminar in accordance with their expressed scientific interests. A summary of each workshop will be supplied individually.
Wednesday 31 July	10.00	Seminar A 'Nuclear & Renewable Energy Research in Britain' H.A. Cole, CEng, MIERE
		Seminar B 'Traditional medicine — is it worth studying?' P.J. Hylands, BPharm PhD CChem MRSC
		Seminar C 'Solar Energy or Nuclear Energy: 'Which one will save us?' 'Which one do we want?' Andrew Mills, BSc PhD(London) GRSC
		Seminar D 'Development of the Human Embryo' Dr Gillian Morris-Kay, MA PhD
		Seminar E 'Food and Nutrition: Action Stations' David P Richardson, BSc MSc PhD
		Seminar F 'The Solar Wind and Comet Tails' Alan D Johnstone, BSc MSc PhD Department of Physics & Astronomy University College London

## Half Day Visits to Industrial & Research Establishments and to University Departments

### Friday, 26 July

Brunel University, Uxbridge Computing Unit  
City University Department of Aeronautical Engineering  
Chelsea College, London Department of Pharmacy  
General Electric Company Ltd Hirst Research Centre  
Institute of Cancer Research Chester Beatty Research Institute  
Imperial College of Science & Technology Department of Chemical Engineering & Chemical Technology  
King's College, London School of Biological Sciences

National Physical Laboratory Teddington  
Royal Naval College, Greenwich Department of Nuclear Science  
J Sainsbury, plc Laboratories  
St Thomas's Hospital Department of Haematology  
University College London Department of Electronic & Electrical Engineering  
Zoological Society of London Institute of Zoology

## Day Visits to Industrial and Research Establishments

### Tuesday, 30 July

Atomic Energy Research Establishment Harwell  
British Petroleum Company plc BP Research Centre, Sunbury on Thames  
Central Electricity Generating Board Dungeness Kent  
Esso Refinery Fawley  
Freemans, plc Peterborough  
Institute of Naval Medicine Alverstoke, Hampshire

National Institute for Medical Research Mill Hill  
Royal Botanical Gardens Kew  
Royal Marsden Hospital Sutton, Surrey  
South Eastern Gas (SEGAS) Computer Services, Croydon  
Shell Research Ltd Sittingbourne Research Centre

## Visits to Cambridge and Oxford

### Thursday, 1 August

Cambridge  
University of Cambridge Chemical Laboratories  
British Antarctic Survey  
NAPP Laboratories Ltd Band Pharmaceuticals Ltd  
Downing College

### Oxford

University of Oxford Medical School  
John Radcliffe Hospital Oxford  
Austin Rover Group Ltd Cowley, Oxford  
St Catherine's College

Afternoon tours of the City and Colleges

## Topics for Tonight

Informal discussions led by staff and associates of the Science Fortnight.

Tuesday 20.00 College Hall  
30 July 'The Role of Community in Development'  
introduced by the Reverend John Papworth

20.00 Ifor Evans Hall  
'Science and the Law'  
introduced by Charles Muller

20.00 International Hall  
'The Woman's place is...'  
introduced by Deborah Vaughn

## Social Programme

Thursday 20.00 Welcome Disco  
25 July Empire Rooms, Tottenham Court Road, London WC1

Sunday 20.00 Feature Film: 'To Be or Not to Be'  
28 July University College, Gordon Street, London WC1

Friday 20.00 International Evening  
2 August University of London Union  
Malet Street, London WC1

Sunday 20.00 Feature Film: 'Porky's II'  
4 August University College, Gordon Street, London WC1

Tuesday 20.00 Farewell Disco  
6 August Empire Rooms, Tottenham Court Road, London WC1

## Residential Staff of the London International Science Fortnight, 1985

**COLLEGE HALL**  
Malet Street  
London WC1E 7HZ

Deputy to the Director

Deborah Vaughn

Host

Charles Muller

Deputy Host

Steven Trezise

Counsellors

Hassan Kawa  
Rafael Rivera Leon  
Clare Smith

**IFOR EVANS HALL**  
Max Rayne House  
109 Camden Road  
London NW1

Host

Gareth McKinley

Deputy Host

Siobhan O'Donovan

Counsellors

Jonathan Klinger  
Tara Verity

Assistant

Martin Buckmaster

**INTERNATIONAL HALL**  
Brunswick Square  
London WC1

Host

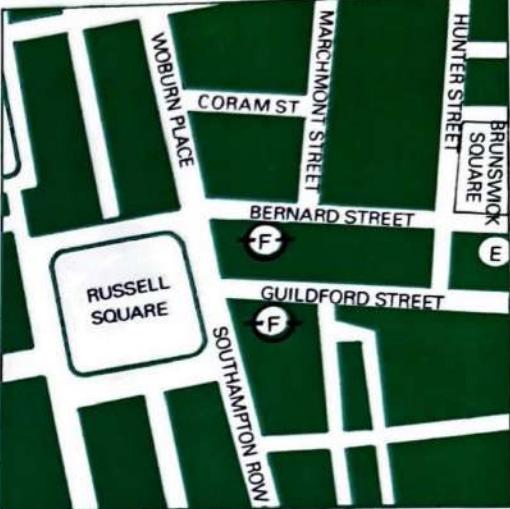
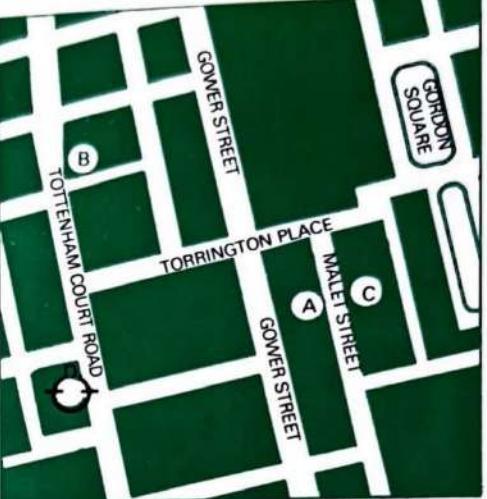
Imelda Bennet

Counsellor

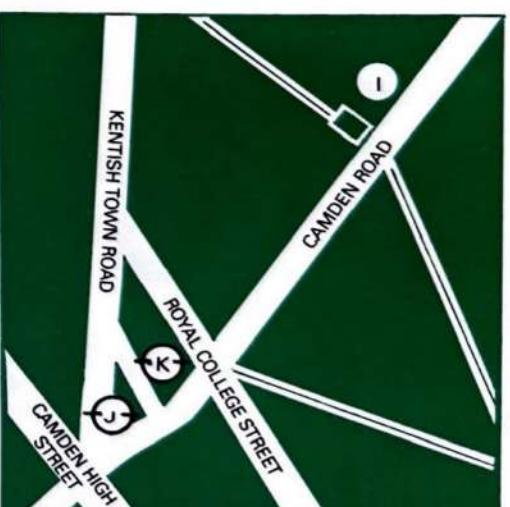
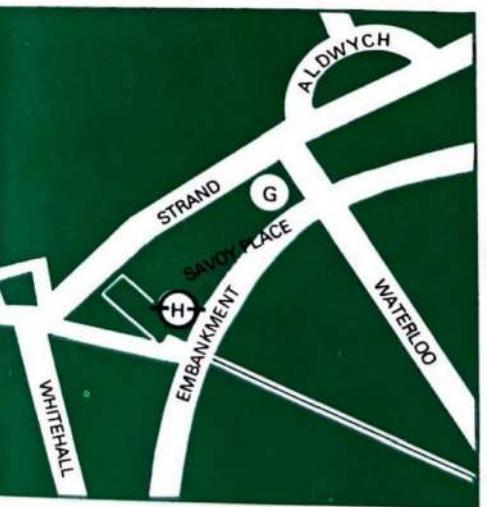
James St Ville

Assistant

Matthew Cullen



KEY TO MAPS	
A	College Hall
B	Empire Rooms
C	University of London Union
D	Goodge Street Station
E	International Hall
F	Russel Square Station
G	Institute of Electrical Engineers
H	Embankment Station
I	Ifor Evans Hall, 109 Camden Road
J	Camden Town Underground
K	Camden Road Station



**The London International Youth Science Fortnight**

(LIYSF Ltd)

PO Box 159 London SW10 9QX

Telephone: 01 373 4568 Telex: 297606

**TWENTY EIGHTH**  
**London International Youth Science Fortnight**  
**will take place from 23 July to 6 August, 1986**

**LIYSF Ltd, PO Box 159, London, SW10 9QX, United Kingdom**