

## Experiments adaptable to AH investigations

	<i>Description</i>	<i>Kit</i>
1	Moment of inertia of a bicycle wheel	
2	Rotational dynamics of a simple pendulum	
3	Determining Planck's Constant using LEDs	
4	Aspects of light polarisation	
5	Photometer experiments	*
6	Investigating magnetic fields using a Hall device	
7	Determining the speed of sound in air	**
8	Determining the speed of sound in metals	*
9	Radio waves and polarisation	*
10	Factors affecting resistance	
11	Vibrations on a taut wire (sonometer)	
12	Experimental derivation of reactance formula	*
13	Capacitance – measurement and factors affecting its value	

## Demonstrations (new this year)

	<i>Description</i>	<i>Kit</i>
1	Interferometer – a “Michelson style” version with ultrasound	**
2	Photocell and stopping potential	
3	Magnetic Sensor (Hall device)	*

\* A limited number of kits of working apparatus for these experiments will be available for taking away.

\*\* The electronic part of the apparatus will be available as the other parts are bulky but readily available at school or in the home.

## Lectures

30<sup>th</sup> May            Astronomy (subject to be confirmed)

Dr. Geoff Dunn, Head of Physics Department, University of Aberdeen.

7<sup>th</sup> June             Relativity, the Special and General Theories

Professor Graham Hall, Emeritus Professor, Department of Mathematics, University of Aberdeen.

The second lecture is designed to increase the confidence of teachers in delivering this subject and answering some of the questions that come from their pupils.

## **Mini-experiments**

In the remaining laboratory space there will be smaller experiments laid out. Generally these do not involve taking a formal series of results which would be analysed thereafter. Among these there will be opportunities to become more familiar with the workings of an oscilloscope, signal generator and multimeter.

Also new this year there is a chance to put together (soldering opportunity) one or more of the kits which can be constructed and tested on the day and then taken away.