

## List of Practical Activities

Guide number	Core number	AS Practical	5c Notes
1		To measure the speed of water waves in a tray	
2		To observe the motion of a projectile down a ramp and to verify that the path is a parabola	
3	<b>1</b>	Determine the acceleration of a freely falling object	
4		Determine the mass of a metre rule using the principle of moments	
5		Measure the resistance of combinations of resistors	
6	<b>2</b>	Determine the electrical resistivity of a material	
7	<b>3</b>	Determine the e.m.f. and internal resistance of an electrical cell	
8	<b>4</b>	Use a falling-ball method to determine the viscosity of a liquid	
9		To verify Hooke's law for a combination of springs	
10	<b>5</b>	Determine the Young modulus of a material	
11	<b>6</b>	Determine the speed of sound in air using a 2-beam oscilloscope, signal generator, speaker and microphone	
12	<b>7</b>	Investigate the effects of length, tension and mass per unit length on the frequency of a vibrating string or wire	
13		Measure the refractive index of glass	
14		Measure the focal length of a lens and verify the thin lens formula	
15	<b>8</b>	Determine the wavelength of light from a laser or other light source using a diffraction grating	

Guide number	Core number	A level year 2 Practical	5c Notes
1	<b>9</b>	Investigate the relationship between the force exerted on an object and its change of momentum	
2	<b>10</b>	Use ICT to analyse collisions between small spheres, e.g. ball bearings on a table top	
3		$Q = VC = It$ Charging a capacitor at constant current	
4	<b>11</b>	Use an oscilloscope or data logger to display and analyse the potential difference (p.d.) across a capacitor as it charges and discharges through a resistor	
5		Interacting magnetic fields	
6		Heating effect of an ac, CRO to measure peak potential difference and calculate root mean square value	
7	<b>12</b>	Calibrate a thermistor in a potential divider circuit as a Thermostat	
8	<b>13</b>	Determine the specific latent heat of a phase change	
9	<b>14</b>	Investigate the relationship between pressure and volume of a gas at fixed temperature	
10		Does a light bulb act as a black body radiator?	
11		LDR to investigate inverse square law	
12	<b>15</b>	Investigate the absorption of gamma radiation by lead	
13	<b>16</b>	Determine the value of an unknown mass using the resonant frequencies of the oscillation of known masses	
14		Compound pendulum	
15		Linked oscillators	