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| **Prac7**  **Physics Practical** | | | |
|  | P:\Drayton Logo\Drayton Manor logo filled 2014.JPG**Y13 Core Practical**  **Simple Harmonic Motion** | | |
| Skills Assessed | | Met? |
| 2. Applies investigative approaches and methods when using instruments and equipment | a. Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting. |  |
| b. Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary. |  |
| c. Identifies and controls significant quantitative variables where applicable, and plans approaches to take account of variables that cannot readily be controlled. |  |
| d. Selects appropriate equipment and measurement strategies in order to ensure suitably accurate results. |  |
| 4. Makes and records observations | a. Makes accurate observations relevant to the experimental or investigative procedure. |  |
| b. Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions. |  |
| 5. Researches, references and reports | a. Uses appropriate software and/or tools to process data, carry out research and report findings. |  |

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| Introduction | |
| In this investigation you will conduct an investigation into simple harmonic motion using a mass-spring system and a simple pendulum. | |
| Equipment – SHM   * pendulum bob * approximately 1.5 m string or thread * two small wooden blocks to clamp the string * stand, boss and clamp * pin and Blu-Tack to use as fiducial mark * metre ruler * stopclock (reading to 0.01 s)   Equipment – Mass-spring   * helical spring * 100 g slotted mass hanger * 100 g slotted masses * stand, boss and clamp * pin and Blu-Tack to use as fiducial mark * metre ruler * stopclock (reading to 0.01 s) | Method  You need to plan and carry out two methods to investigate SHM. One will calculate the value of g using a simple pendulum, and the other the value of k using a mass-spring system. **Both should be graphical**. |
| Relevant equations:  Simple pendulum;  Mass-spring system; | |