Y12 Practical Physics

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Practical number | Practical Title | Read text book pages | Summary page done | YouTube clip watched | Virtual practical investigated | Summary questions done | Marked and MIB |
| 1 | Stationary waves |  |  |  |  |  |  |
| 2a | Interference effects: diffraction grating |  |  |  |  |  |  |
| 2b | Interference effects: double slits |  |  |  |  |  |  |
| 3 | Free fall |  |  |  |  |  |  |
| 4a | Young modulus: Copper |  |  |  |  |  |  |
| 4b | Young modulus: Steel |  |  |  |  |  |  |
| 5 | Resistivity |  |  |  |  |  |  |
| 6 | EMF |  |  |  |  |  |  |

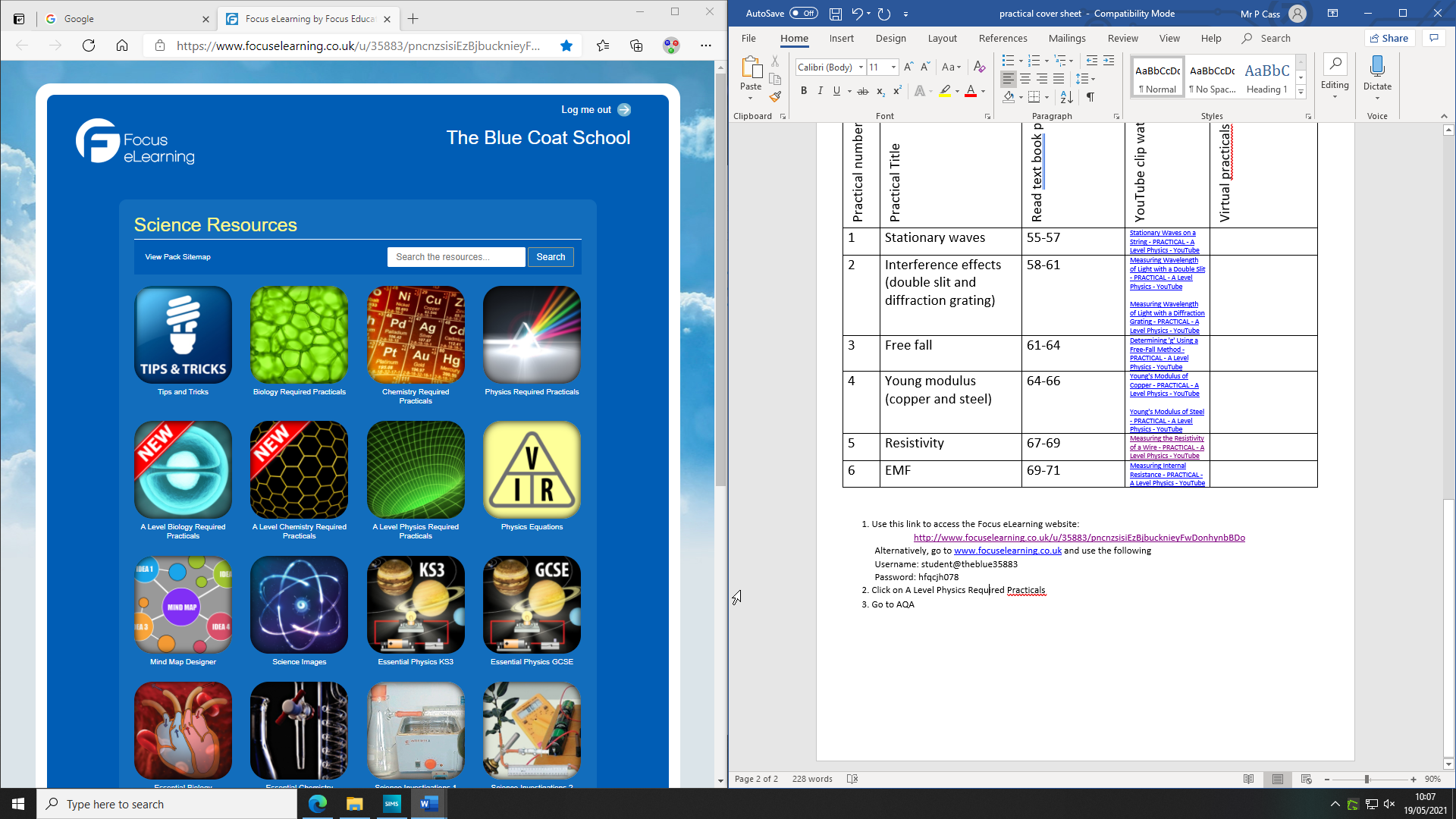
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Practical number | Practical Title | Read text book pages | YouTube clip watched | Virtual practical |
| 1 | Stationary waves | 55-57 | [Stationary Waves on a String - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=LLt6eX50wjE&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=1) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=standing-waves) |
| 2a | Interference effects: diffraction grating | 58-61 | [Measuring Wavelength of Light with a Diffraction Grating - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=TlkVtpzPTdU&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=3) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=youngs-slits) |
| 2b | Interference effects: double slits | [Measuring Wavelength of Light with a Double Slit - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=RrxExL84M98&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=2) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=diffraction) |
| 3 | Free fall | 61-64 | [Determining 'g' Using a Free-Fall Method - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=esfy8_u01KA&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=4) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=freefall) |
| 4a | Young modulus: copper and steel) | 64-66 | [Young's Modulus of Copper - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=VSLpfTTc0Sw&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=5) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=young-modulus-mj) |
| 4b | Young modulus: steel | [Young's Modulus of Steel - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=IBYgBwBZBLA&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=6) |  |
| 5 | Resistivity | 67-69 | [Measuring the Resistivity of a Wire - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=gtpPsyQ7dD4&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=7) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=resistivity) |
| 6 | EMF | 69-71 | [Measuring Internal Resistance - PRACTICAL - A Level Physics - YouTube](https://www.youtube.com/watch?v=SMmgtGIUQhk&list=PLlDtVvefFYT_AoqQZQAxvSvPRFVEF756Y&index=8) | [A level Physics Required Practicals - Focus eLearning by Focus Educational Software ltd.](https://www.focuselearning.co.uk/programmes/?programme=a-physics-rp&page=internal-resistance) |

1. Use this link to access the Focus eLearning website:

<http://www.focuselearning.co.uk/u/35883/pncnzsisiEzBjbucknieyFwDonhynbBDo>

Alternatively, go to [www.focuselearning.co.uk](file:///C:\Users\pcass\Downloads\www.focuselearning.co.uk) and use the following

Username: student@theblue35883

Password: hfqcjh078

2. Click on A Level Physics Required Practicals

**investigation: 1. Stationary Waves**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**2a. interference effects (diffraction grating)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**2b. interference effects (double slits)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**investigation: 3. Determination of g by free fall**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**investigation: 4a. Young Modulus (Copper)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**investigation: 4b. Young Modulus (Steel)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**investigation: 5. Resistivity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

**investigation: 6. EMF**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planning | | | | | | |
| Apparatus needed (include precision where applicable)  Include diagram |  | | | | | |
| I want to find out |  | | | | | |
| Independent variable |  | | | | | |
| Dependent variable |  | | | | | |
| Control variables |  | | | | | |
| Sketch of my graph  (including axis titles and shape) |  | | | | | |
| What does the gradient tell me |  | | | | | |
| y=mx+c | y | = | m | x | + | c |
|  | = |  |  | + |  |
| Safety issues  (Hazards/ Precautions) |  | | | | | |
| Sources of error |  | | | | | |

Stationary waves text book questions (or glue in)

Interference effects waves text book questions (or glue in)

Free fall text book questions (or glue in)

Young modulus text book questions (or glue in)

Resistivity text book questions (or glue in)

EMF text book questions (or glue in)

Extra paper

Extra paper

Extra paper

Extra paper