Physics **SOW** & **Required Practical** (2022-2023)**: Y11**

 **AQA GCSE: 8463**

**** QAN code: 601/8751/7

 ***Year 10:***

*1. Energy*

*2. Electricity*

*3. Particle model of matter*

*4. Atomic structure*

**Year 11:** *(green=covered)*

**5. Forces**

**6. Waves**

**7. Magnetism and electromagnetism…**

**8. Space physics** (physics only)

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| **Week** | **Date** | **Topic** |  | **Additional notes** |
| W1 | 04-09-23 | * N/A
* 8.1 Vectors and scalars/8.2 Forces between objects
 |  | **Monday (4th ) INSET day****5. Forces****Spec\_code: 4.5.1.1 to 4.5.7.3** |
| W2 | 11-09-23 | * 8.3 Resultant forces
* 8.4 Moments at work
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| W3 | 18-09-23 | * 8.6 Centre of mass
* 8.7 Moments and equilibrium
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| W4 | 25-09-23 | * 8.8 Parallelogram of forces
* 8.9 Resolution of forces
 |  |  |
| W5 | 02-10-23 | * Summary and review
* 9.1 Speed and distance-time graph
 |  |  |
| W6 | 09-10-23 | * 9.2 Velocity and acceleration
* 9.3 Velocity and acceleration II
 |  | Blended learning: Friday 13th |
| W7 | 16-11-23 | * 9.4 Analysing motion graphs
* Summary and review/ EOU Test
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|  W8 | HT(23-10-23) |  |  |  |
|  W9 | HT(30-10-23) |  |  |  |
|  W10 | 06-11-23 | * FD and review
* 10.1 Forces and acceleration
 | **GCSE Engineering**Aerodynamics: 3.4.3 | Student learn **lift**, **drag** & **thrust** in Physics and Engineering |
|  W11 | 13-11-23 | * 10.2 Weight and terminal velocity
* 10.3 Forces and breaking
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|  W12 | 20-11-23 | * 10.4 Momentum/10.5 Using conservation of momentum
* 10.6 Impact forces/10.7 Safety first
 |  |   |
|  W13 | 27-11-23 | * 10.8 Forces and elasticity
* Buffer
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|  W14 | 04-12-23 | * 11.1 Pressure and surfaces/ 11.2 Pressure in liquid
* 11.3 Atmospheric Pressure/ 11.4 Up thrust and flotation
 |  | Blended learning: Friday 15th |
|  W15 | 11-12-23 | * Summary and review
* EOU test
* RP6 Investigating the relationship between the force and extension of a spring
 |  | **✓** |
|  W16 | 18-12-23 | * FD and gap analysis
* Buffer
* *RP7 Investigation between force and acceleration*
 |  | ***School breaks on Thursday 21st:*** |
|  W17 | HT(25-12-23) |   |  | **Winter break:**BANK holiday Monday 25th and Tuesday 26th |
|  W18 | HT(01-01-24) |  |  | BANK holiday Monday 1st |
|  |   |  |  | **Schools opens Tuesday 4th of Jan** |
| W19 | 08-01-24 | * 12.1 The nature of waves/12.2 The properties of waves
* 11.3 Reflection and refraction
 |  | **6. Waves****Spec\_code: 4.6.1.1 to** 4.6.2.6 |
| W20 | 15-01-24 | * 12.4 Sound waves
* 12.5 The use of ultrasound/ 12.6 Seismic waves
 |  |  |
| W21 | 22-01-24 | * Summary and review
* Buffer
 |  |  |
| W22 | 29-01-24 | * 12.1 The electromagnetic spectrum
* 12.2 Light, IR, MW and RW
 | **GCSE Biology**The eye: 4.5.2.3 | In Physics, students learn how eye detect visible light though cone and rods, but very briefly. This learning is extended in Bilogy |
| W23 | 05-02-24 | * 12.3 Communications
* 12.4 UV, X-rays and gamma rays
* RP8 Investigating plane wave in a ripple tank
 |  | **INSET day Thursday 8th and Friday 9th*****RP8 would be done in W26, Some apparatus parts are broken, should get them by the end of the half term***  |
| W24 | 12-02-24 | * 12.5 X-rays in medicine
* Summary and review
 | **GCSE Biology**Cancer: 4.2.2.7 | How ionization radiation destroys cells and leads to mutation, this understanding is further extended in Biology |
| W25 | HT(19-02-24) | **Higher tier only:** * *16.1 Formation of solar system*
* *16.2 The life history of a star/ 16.3 Planets, satellite and orbits*
* *16.4 The expanding universe/ 16.5 The beginning and the future of the universe*
 |  | **7. Space**Spec\_code: 4.8.1.1 to 4.8.2 |
| W26 | 26-02-24 | * 13.1 Magnetic fields /13.2 Magnetic fields and electric currents
* 13.3 Electromagnets in devices
 | **GCSE Engineering**Electrical systems: 3.3.2 | **INSET (20-02-23 Friday)****8. Magnetism and**  **Electromagnetism****Spec\_code:** 4.7.1 to 4.7.3.4Electrical systems such as power supplies (mains and batteries), input control devices (for example relays and switches), output devices (motors, buzzers, bells, lamps and solenoids). |
| W27 | 04-02-24 | * 13.4 The motor effect
* 13.5 the generator effect
* RP 10 investigating IR
 |  | **INSET day Friday 8th** |
| W28 | 11-03-24 | * 15.6 The alternating-current generator
* 15.7 Transformers and uses of transformers
 |  |  |
| W29 | 18-03-24 | * 14.1 Reflection and refraction of light
* 14.2 Light and colour
 |  | **Lenses**spec-code: 4.6.2.5 to 4.6.2.6 |
| W30 | 25-03-24 | * 14.3 lens/ 14.4 uses of lens
* RP9 Investigation of refraction and reflection
* Summary and review
 |  | BANK holiday Friday 29th |
| W31 | HT(01-04-24) |  |  | **Easter break:**BANK holiday Monday 1st |
| W32 | HT(08-04-24) |  |  |  |
| W33 | 15-04-24 | * Revision
* Revision
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| W34 | 22-04-24 | * Revision
* Revision
 |  |  |
| W35 | 29-04-24 | * Revision
* Revision
 |  |  |
| W36 | 06-05-24 | * Revision
* Revision
 |  | BANK holiday Monday 6th |
| W37 | 13-05-24 | * Revision
* Revision
 |  |  |
| W38 | 20-05-24 |  **Paper 1** |
|  W39 | HT(27-05-23) | BANK holiday Monday 27th |
| W40 | 03-06-23 | * Exam
* Exam
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| W41 | 10-06-23 | * Exam
* Exam
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| W42 | 17-06-23 | * Exam
* Exam
 |
| W43 | 24-06-23 | * Exam
* Exam
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| W44 | 01-07-23 | * Exam
* Exam
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| W45 | 08-07-23 | **Paper 2** |
| W46 | 15-07-23 | * Exam
* Exam
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| W47-52 | 22-07-23END of the academic Year | **Summer break: *School breaks Friday 19th*** |