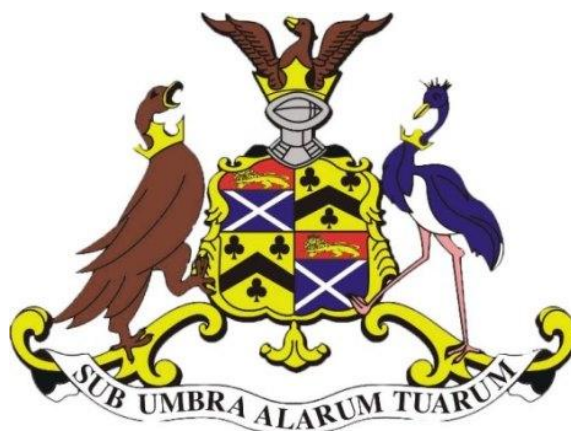


Sir Joseph Williamson's Mathematical School - Department Performance Agreement

PHYSICS 2021-22 Revision A



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Section 1: LAT Excellence Charter

All LAT academies are committed to the 10 Point LAT Excellence Charter given below. It sets our inalienable commitments to staff, pupils and parents. To demonstrate our strong commitment, all targets within this academy performance agreement are referenced against the LAT Excellence Charter.

- 1) We will provide outstanding leadership and governance at every level so that all pupils attend an academy judged to be at least good overall by Ofsted.
- 2) We will ensure a rich, engaging and inclusive curriculum with effective teaching and high-quality learning resources across all subjects and year groups.
- 3) Regardless of their ability or personal circumstances we will ensure that all groups of pupils make at least good progress and diminish differences in their attainment.
- 4) We will develop pupils' characters and attributes in line with the International Baccalaureate Learner Profile so that all LAT alumni obtain a collection of desirable qualities before they leave school.
- 5) We will ensure that pupils are well-behaved, confident and respectful in safe and secure environment.
- 6) We will ensure a high-quality workforce and prioritise staff retention, professional development and well-being.
- 7) Through our "Business Promise" we will guarantee strong engagement for all pupils with industry and employers.
- 8) We will provide all pupils with a high-quality career learning programme.
- 9) We will grow to support more schools in the region so that our pupils and theirs benefit and that standards improve across the board.
- 10) We will work with our own and other primaries to ensure smooth transition to our secondary academies.

Section 2: Core Priorities

Our Core Priorities encapsulate the over-arching goals we have set for this year, based on our thorough self-evaluation. They are phrased in a deliberately open manner. Under each core priority are a set of clear targets found later in this document that confirm in greater detail how each priority will be achieved along with clear timeframes, performance milestones and responsibilities. Targets are RAG-rated at three points throughout the year.

<p>1. To offer a broad and balanced curriculum with a full range of subjects, expertly delivered and augmented by a wide and well accessed co-curricular offer.</p>
<p>2. To maintain the rolling average progress 8 score above +0.5. To improve the proportion of 7-9 grades gained at the school to exceed 50% of all grades gained by year 11 students and to gain an ALPS score of 3 or higher for year 13.</p>
<p>3. To ensure all teaching at the school is at least good or better through the provision of expert CPD and monitored through the School Self Review process along with regular observation by line managers and Heads of Department.</p>
<p>4. To ensure the personal development continues to be outstanding.</p>
<p>5. To ensure behaviour continues to be outstanding by targeting attendance of 97%, ensuring fewer than 30 days of fixed term exclusion and by ensuring that less than 5% of behavior grades are 'R' or 'I'.</p>

Section 3 – Curriculum Statement

Intent

(what is the intent of your curriculum in each Key Stage? – consider knowledge, understanding and skills)

Key aims:

The department aims to provide for students with a broad range of interests in science. Some students will pursue education in Physics through to Key Stage 5, degree level and perhaps beyond. Our aim is to provide them with a solid background of understanding, and a high level of numerical skill and ability to formulate arguments rationally and logically. Other students may enter higher education or employment with the need to utilize the skills and knowledge they have learnt in Physics whilst at school. Some students are unlikely to pursue employment in a career related to Physics but will still benefit from a broad appreciation of the physical rules governing the way the world works, recognise the benefit of rational explanation and be encouraged to be curious about natural phenomena. The Physics curriculum has been designed to cater for all students irrespective of the direction their future might take, giving them the knowledge and skills to form the next generation of scientists, engineers, professionals and informed, interested members of society.

At Key Stage 3 and beyond students are taught the following key scientific skills:

Scientific enquiry

- Planning of practical investigations
- Performing practical procedures and taking measurements
- Systematically recording observations and measurements
- Analysis of results to form conclusions
- Recognition of the sources of experimental errors, and the purpose of taking repeat results and calculating averages
- Evaluation of experiments
- Understanding scientific practices and how scientific theories become accepted

Numerical skills

- Use and manipulation of mathematical formulae
- Knowledge and use of SI units
- Use of prefixes, standard form and engineering form
- The selection of an appropriate number of significant figures

- Estimation
- Construction and interpretation of graphs (including gradient at KS3 and area at KS4)
- Understanding exponential relationships (in KS3 and 4)
- Identification of anomalous results and calculation of averages
- Calculation of uncertainties (in KS5)

Literacy skills

- The meaning of command words
- Use of subject specific terminology with an emphasis on common errors
- Appropriate use of different writing styles to convey information (continuous prose or bullet points)
- Correct spelling, punctuation and grammar
- Inclusion of a suitable level of detail, for example within scientific explanations or descriptions of practical procedures

Forming reasoned arguments

- The recognition of relevant knowledge and abstract ideas, including use of relevant equations to identify key terms
- Sequencing of ideas
- Providing logical justification and reasoning

Techniques to improve long term memory are being introduced including:

- Production of revision summaries
- Concept mapping
- RAG analysis of learning objectives
- Repeated revision and recall of formulae

Implementation

At Key Stage 3 schemes of work follow the National Curriculum to a very large extent and have been amended in order to increase the level of challenge in Key Stage 3 to better prepare students for the new GCSE specification. A spiral curriculum ensures that common big ideas in Physics are revisited and extended allowing pupils to consolidate prior learning, encourage retention in their long-term memory and extend their knowledge base and ability to

apply this knowledge. The curriculum focuses largely on improving knowledge and application of forces, motion, energy, waves, electricity, astronomy and practical enquiry skills.

To establish a solid foundation of the most fundamental concepts students study units on Forces, Energy and Electricity in Year 7. Students start to apply these concepts in Year 8 through their study of heat transfer, waves and space and forces and transport. In Year 9 the idea of work done is introduced and the study of force, energy and electricity becomes considerably more numerical. The fundamental concepts are explored in greater depth through Key Stages 4 and 5, becoming increasingly conceptual and requiring greater application to unfamiliar situations. Students start to realize that the difficulty of Physics is often to see how simple the solution really is. We promote the drawing of diagrams to help them understand problems and train them to identify the physical relationships and ideas that are likely to be involved in an answer so that they can form increasingly complex arguments from them.

At Key Stage 3 students study the following sequence of units:

Year 7

Energy and electricity

Students learn about energy types, energy transfers, energy resources and electric circuits and current.

The concept of voltage is not taught at this stage as students find this conceptually difficult and we feel they learn better when they have a clear understanding of current first.

Forces, motion and deformation

Students learn to describe forces as a push or a pull of one object on another, as this helps them to think more critically about forces in more complex situations. They measure and calculate weights and masses. Numerical and observational skills are developed through an investigation into buoyancy, in which students calculate density and relate their answers to the particle model of matter. Friction and free-body force diagrams are taught and this leads on to the study of impact forces.

Year 8

Forces and transport

The topic commences with learning about resultant force and how this causes objects to accelerate, and how drag limits the speed of moving objects.

Numerical skills are developed by the drawing and interpretation of motion graphs and calculation of speed and acceleration. The concept of velocity (as opposed to speed) is introduced for the first time. The topic broadens students' experience of force and electricity via the study of magnetic fields, moments and pressure.

Heat

Students recap the particle model of matter and use this to explain expansion and thermometer design. They start to differentiate between temperature and heat, and start learn how heat is transferred. The aim is to give students a solid grounding in the basic concepts upon which they can build in Year 9 and 11.

Waves and space

We find that pupils' experience of these topics from primary school is mixed and that they benefit from covering the law of reflection and the way angles are measured from a normal before we can extend their learning to refraction. Similarly students come with misconceptions about colour and how to explain the phases of the moon and seasonal changes, so these concepts are taught and assessed to fill gaps in student's knowledge prior to Key Stage 4.

Year 9

Energy in space and on Earth

Whilst learning more about weight, students make and test their own force meter. Students learn to calculate of work, kinetic and gravitational potential energies in order to increase the level of challenge and provide a grounding in the numerical skills needed at GCSE. Finally the concept of energy is extended to electric circuits initially recapping rules for current and then extending to the measurement and calculation of voltage, using voltage to explain where energy is transformed in electric circuits.

Pressure and moments

Learning is extended by a greater emphasis on numerical work calculating pressures and upthrust. Vector and scalar quantities are introduced for the first time and students start to perform vector addition, calculating resultant vectors. At the end of the unit, work from Year 8 on hydraulics and moments is recapped and extended. The teaching of moments and pressure in the same topic is deliberate, as it provides the best opportunity for dealing directly with the issues of commonly confused concepts of work and moments and their units. The scheme of work aims to give students clear examples of the practical importance of moments, not simply limited to the balancing of beams supported by a single pivot.

In Key Stages 4 and 5 the curriculum is predominantly dictated by the Edexcel GCSE and A Level specifications, but students' work is extended beyond the precise scope of the specification in cases where the department believes that this will enhance students' ability to apply their knowledge or to understand a concept. The decision is largely taken by the individual teacher, as he/she is in the best position to make this judgement based on the students in the

class. An example of this is the decision to teach about the 'photon' and 'photon energy' in Key Stage 4 to explain why ultra-violet light is able to ionize atoms rather than just rely on an unexplained statement that 'ultra-violet has a high frequency' or that it 'carries more energy'. For students who will take Physics at A Level, having a clear grasp of photon energy and the intensity of a radiation makes understanding the photo-electric effect at Key Stage 5 easier (rather than having to correct a muddled understanding at a later date). Practical work includes the core practicals specified by the Edexcel to meet QCA requirements.

At A Level students study the Edexcel specification and have 2 teachers enabling them to experience slightly different teaching styles which can help to promote understanding. Each teacher is responsible for either Paper 1 content or Paper 2. Both are responsible for teaching the practical skills necessary for core practicals and for developing students' ability to synthesise ideas, both assessed in Paper 3.

The A Level schemes of work are detailed, but not prescriptive, such that teachers new to teaching a topic have sufficient detailed guidance and commentary on how to link ideas that they are well supported in their teaching, but more experienced teachers are free to set activities of their own choice which can bring greater variety and allows them to tailor teaching to the students in a particular group. The aim is always to achieve a deep and secure understanding, but also to extend teaching either a little beyond the specification, or apply it to as wide a variety of situations as time allows to broaden students' study and improve their ability to apply their learning to unfamiliar situations.

Promoting learning

In order to gauge student progress and provide opportunities for students to develop at all key stages their long-term memory, regular revision and testing is incorporated into the scheme of work.

In Key Stage three approximately 12 lessons are devoted to every topic and students are assessed after 6 lessons and at the end of the topic with compulsory revision tasks prior to every assessment. The topic tests are supplemented by end of year exams, and as students progress through Key Stage 3 the end of year exams will test them on the whole curriculum studied to date.

In Key Stage 4 a variety of assessment techniques is used; some assessing particular skills, others assessing a larger body of knowledge using past exam questions. Students experience full length examination papers at the end of Year 10, November of Year 11 and March of Year 11. A large body of revision questions has been developed to support students in their learning prior to the Year 10 exam and the final external examinations. Teacher assessment of the Year 10 exam provides feedback to allow students to make significant improvements to their exam paper, building skills and a deeper knowledge and

understanding of the Physics Paper 1 content prior to their mock exam in November of Year 11. The department has also devised a series of frequent quick tests to help consolidate recall of prior material throughout the school year. This requires further embedding to improve its use across the department.

Prior to entry into the 6th form students are given the opportunity to sample A level teaching during a series of induction lessons in Term 6 of Year 11. These are well attended by both internal and external students. The department issues a summer workbook (via the school website) for students to continue to engage with physics content. At the start of Year 12 testing is undertaken in the first few weeks to check on students' knowledge following the summer holiday work set. This enables the department to identify gaps in understanding and knowledge and take action to overcome these. Further testing is undertaken in Term 2 (November) of Year 12 and they sit an end of year exam in Term 6 of Year 12. Students are given past papers to answer over the summer prior to Year 13 to extend their experience of A level papers and a further exam is given in Term 1 of Year 13 which provides an opportunity to check on progress and change UCAS predicted grades. Mock examinations are taken in Term 3 of Year 13. This is supplemented by other smaller tests. In every case, students are given their marked work and a set of hints to allow them to improve their work further.

The progress of all students is monitored in termly Data Analysis and Intervention meetings (undertaken in one of the fortnightly line management meetings), during which a strategy for support is identified. A written comment is made for all SEN students to ensure that their needs are being considered.

Support to help students make progress is also provided by additional help in lessons, use of lunchtimes, plus support sessions after school on a fortnightly basis at GCSE and a series of holiday and weekend revision sessions for Year 13 (usually totaling around 30 hours).

Impact

In 2019 GCSE Physics students attained an average Grade of 7.1, amongst the highest in the school. Those taking Combined Science achieved an average of 6.1, slightly below their challenging target.

At A Level the department has secured ALPS scores of 2, 3 and 5 over 2017-2019 years. It is a consistently highly attaining department.

In addition it manifests itself in these other ways:

- There is a high take-up of Physics at A level, with external students choosing to move to the Math to study Physics.
- All students have passed their Practical Endorsement at A level due to the dogged determination of their teachers and the setting of additional tasks, without any reduction in the high standards expected.
- Students apply their mathematical skills effectively in numerical work.

- Students can express their ideas clearly, using key terminology.
- Performance at GCSE is consistently amongst the highest in this highly achieving school.
- When students leave the school they are equipped with the analytical, planning and organisational skills needed to progress into further education and the world of work.

The department has a target to improve the performance SEN and disadvantaged students to perform in line with their peers.

Section 4: Departmental Self Evaluation and Target Setting

Overall judgments:

Effectiveness of Leadership & Management	Quality of Education	Behaviour and Attitudes	Personal Development	Sixth Form	Overall Effectiveness
1	1	1	1	1	1

Self Evaluation Leadership and Management

The Physics department is a highly successful department in a highly achieving school. This occurs through considerable effort to raise standards and a resolve not to accept mediocrity. Commentary on the results is included in the 'Impact' section above.

The organisation of the department has been praised by Year 13 students in preparation for their final exams in the summer of 2019. When asked whether they had wished that the department had done anything differently the overwhelming response was that they felt as fully prepared as they could be, given that the course had been completed well before the exam, they had several weeks of intensive revision and a large number of opportunities for support through holiday revision sessions, lunchtime support and a whole series of weekend support sessions from March to the final examination. The one thing that was suggested was to provide slightly earlier practice of the most complex type of questions. This suggestion is being taken on board with additional questions being identified for use in Year 13.

Fortnightly line management meetings are held with departmental teachers, providing an opportunity to discuss the progress of students in detail (with a particular eye on SEN students), review performance management targets, discuss any issues that have arisen and I always take the opportunity to ask if they need advice. The relationships between staff are good.

The focus for 2021-22 is increased monitoring and intervention with Years 11 and 13, and a new protocol for departmental monitoring is being implemented to increase the ease of monitoring, whilst minimising the workload for teachers.

The management of the department is shared with the second in department who takes on specific responsibility for Key Stage 3, and on a rota basis the responsibility for the progress of one KS3 year group. Additionally for 2020-21 the second in department was responsible for leading on the integration of chromebooks into regular teaching and has taken over the line management of Richard Bishop. Departmental and line management meetings allow for regular opportunities to discuss KS3 matters. Reviews of the adequacy of the schemes of work is undertaken annually during Term 6, identifying elements that require change and taking the necessary action, largely during Term 6 and over the summer holiday. Within the schemes of work lessons are planned in detail, to ensure that the appropriate level of detail intended is clear, and to ensure that activities are organised for teachers to be able to use, but teachers are free to deliver the curriculum in the way they see fit for their students, unless there is a specific reason for stipulation.

Maintaining the quality of teaching and learning is undertaken through termly learning walks, as well as simply being aware of the lessons in progress whilst going about day-to-day tasks and the formal lesson observations. Specific feedback is given and should there be the need for ongoing discussion there are opportunities in line management meetings.

The department has employed strategies to help reduce teacher workload. This includes the careful crafting of Year 12 reports so they can also form the basis of UCAS subject references. The department has also spent time developing a strategy for providing feedback to students without considerable time being required by the teacher. After each exam for example students are given a hint sheet, specifically designed to follow the mark scheme such that they can identify how to improve. This dramatically reduces the requirement for teacher time whilst marking and when students are improving their work, allowing for higher quality discussions to be undertaken with students. It has had a significant impact on the quality of work seen in books.

Further areas for improvement:

The principal focus should be on monitoring the regular use of recall techniques, continued implementation of chromebooks into learning, transfer of departmental documentation onto the Google Drive and ensuring that provision is made to limit the impact of Covid-19 on Year 11 and 13 students' progress.

2021-22 Effectiveness of Leadership and Management

Leadership Target 1	Responsibility	RAG Rating		
Monitoring the regular use of recall techniques eg during department meetings, learning walks and DAI meetings, successful implementation of chromebooks into learning, transfer of departmental documentation onto the Google Drive and ensuring that provision is made to limit the impact of Covid-19 on students' progress.	ARW	Dec	May	Sept
How will you achieve this target?		Performance Milestones		
<ol style="list-style-type: none"> 1. Provide and monitor regular testing of the formulae which need to be learned at GCSE 2. Monitor provision of recall quizzes in KS4 via departmental meetings, learning walks and line management meetings 3. Increase the provision of long answer question practise in Year 13. 4. Transfer schemes of work and pupil data onto Google Drive 5. Identify Year 11 students for attendance at intervention sessions 	<p>Tests across the department in Years 10 and 11 in Terms 1, 2, and 4.</p> <p>Raise in department meeting at the start of Term 1 and review in Terms 1, 2, 4 and 5. Spreadsheet to be prepared at the start of Term 1 by ARW</p> <p>Long answer questions to be used in Y13 Term 1 and 2</p> <p>By end of Term 1</p> <p>Draft list to be shared at departmental meeting at the start of Term 1</p>			

Self Evaluation of Quality of Education

The department benefits from having teachers who have experienced the world of work in a variety of professions/fields prior to entering teaching. This enables the subject matter to be put in context and brought to life for students, extending their understanding of the social impact of science, together with the ethical issues affecting scientific endeavour and technological development. The subject knowledge of teachers is excellent, with a member of staff having examined extensively for Edexcel and having 2 teachers with over 20 years of teaching experience.

Students generally make very good progress, achieving close to their target grades. The SSR lesson observations commonly mention the diligence of students and their commitment to work.

A particular feature of the subject is the importance of technical language, concepts and mathematical skills. With the introduction of the new KS4 specification, concepts from GCSE have been introduced into KS3 eg the greater use of mathematics and the teaching of magnetic flux to help students to make the transition to KS4.

Work scrutinies consistently show that the assessment in books is good or outstanding. The use of printed EBI sheets for improvement of exam answers allows rapid feedback with students being given hints as to where to find supporting information, or how to avoid common mistakes. This frees up teacher time to focus on helping those students in particular need.

The GCSE results in 2019 (relative to target) were 1.0 APS (0.17 grades) above last year's results and an average of 1.2 APS below FFT(D) target. Results for previous years for comparison are shown below.

Year	Number of students	APS Target	APS achieved	Difference	%7-9 (target)	%7-9 (achieved)
2021	127	7.04	7.06	0.02	89.8	60.6
2020	119	6.87	7.20	0.33	92.5	68.1
2019	125	7.70	7.08	-0.62	88.0	63.2
2018	106	7.80	6.97	-0.75	90.6	53.8
2017	115	7.47	7.17	-0.3	87.0	76.5

The department feared that the effects of the COVID-19 lockdowns were having the greatest effect on last year's Year 10. To mitigate its impact a host of revision materials were provided to students in all Year 10 classes for students to help prepare for their end of year exams. The results of these exams suggested that by the

end of the year, progress was in-line with previous years. Nevertheless monitoring and targeting of students for intervention continues to ensure that students do make the expected progress.

Since the introduction of the 2015 A Level Specification, the department has scored ALPS grades of 2, 3, and 5. The 2019 ALPS 5 score reflects the difficulty of continuing the huge progress made by this cohort in KS4. Nevertheless the department remains a strong performer at KS5.

There is a mixed picture of progress in Year 13 with a number of students having been identified as at risk of making the expected progress. There has been an insistence that students undertake past paper practice over the summer (10 papers in total) and testing in mid September will identify the extent to which all Year 13 students have been able to progress. The programme of past paper work continues with a further 15 past papers being set over the course of Terms 1 and 2.

Further areas for improvement:

The principal focus should be on continuing to develop recall testing at GCSE and A level and incorporate the feedback from Year 13 students for a wish for more synoptic questions earlier in the course.

2020-21 Quality of Education Targets

Quality of Education Target 1	Responsibility	RAG Rating		
See Leadership Targets 1, 2 and 3	ARW	Dec	May	Sept
How will you achieve this target?		Performance Milestones		
See Leadership Targets 1, 2 and 3				

Self Evaluation of Behaviour and Attitudes

Visitors to the department comment on the keenness of students to get on with their work, the calmness with which they interact with each other and the overall feeling that students want to do well.

When students who fail to meet the high standards expected a student may be moved to sit in another seat, given a detention or there may be a phone call home. Teachers always have a discussion with the student in order to explain their expectations and explore the reason behind the misbehavior and to try to bring about a positive change in the student's behaviour. Students can be placed on departmental monitoring and failure of one sanction will lead to progression to a Head of Department detention for example.

The large majority of students show a clear desire to progress and this is shown by their dedication to improve their work following teacher assessment and the overall care taken with the presentation of their work. Emphasis on presentation and the quality of written work is a cornerstone of the termly work scrutiny process. Students relish working at a high level and this is facilitated by the setting of some work from the next key stage e.g. the use of KS4 formulae in Year 9 and the use of A level and University texts in Key Stages 4 and 5 respectively.

Further areas for improvement:

Increase the recording of positive behaviour and excellent work / contributions

2021-22 Behaviour and Attitudes Targets

Behaviour and Attitudes Target 1	Responsibility	RAG Rating		
		Dec	May	Sept
Increase the recording of positive behavior / attitudes	ARW			
How will you achieve this target?		Performance Milestones		
Identify how the number of positive behaviour records can be monitored Monitor on a Termly basis in Terms 1 and 3 and identify any actions needed		Term 1 Terms 1 and 3		

Self Evaluation of Personal Development

The Physics department is keen to give students the opportunity to take charge of their learning, take time to reflect and make progress towards the skills and attitudes that will be beneficial to them in later life. Through all key stages students are required to be reflective about the work they have done. Improvement of work is a part of everyday school life, not to imply that the work is not 'good enough' rather to stretch students to be the best they can be and to take pride in making further progress. We are keen for students to understand when the work they have done shows elements of the skills / ideas required by the next key stage, so that they have a thirst for further development.

A key point when students start to take greater responsibility and autonomy for learning is in Year 12, and this is important if they are to make a successful transition to university for example. A schedule of past papers to be undertaken is given early in Year 12 for students to work through. An EBI task is set for Y12 after their end-of-year exam for them to make improvements and students are asked to consider the amount of time they spend preparing for the exam and the effectiveness of the methods they used to prepare. Students are given the opportunity to do further past paper work and the department provides a second exam in Year 13 Term 1. All students then sit this second exam, so this becomes 'another mock' rather than a 'resit', which is more motivational, especially for those who are trying very hard but struggling with the complexities of the subject.

The department is committed to students developing a desire for learning and to use their own initiative and we ensure that they have access to sources of information in the labs to allow them to do so with a degree of autonomy. To develop their confidence and resilience we set work that is challenging and maybe applied to situations beyond their direct experience, allowing them an opportunity to suggest an answer even if they're not sure.

In practical work students learn to organize themselves in groups and to cooperate with each other, sharing tasks amongst the group. By undertaking risk assessment of practical work they develop their judgement and start to take increasing responsibility for themselves and others who may be affected by their work e.g. in planning the safe use of lasers. To aid this students are given extracts from codes of practice and start to recognize the role of legislation in the world of work. We teach students the importance of getting solutions right e.e. the importance of checking in engineering design, the impact of mistakes like pollution from radioactive substances and avoidance of negligence by consideration of how to be a responsible driver and the driver-related factors affecting the braking distance of a car. As students move up through the school they to become more independent in how they work. Nevertheless the department is keen for them to maintaining standards eg of presentation of work and formatting, so they are aware of the type of standards that will be required of them in the world of work. In the sixth form this is monitored via a folder checking process, which is undertaken 3 times a year. This year, with the aim of increasing students taking greater responsibility for their learning the plan is for teachers to assess folders twice, with students being given the responsibility for self checking once.

With a wealth of experience in industry and commerce, physics teachers are well equipped to discuss the relevance of the skills that students are developing in terms of employability and enabling students to make a meaningful contribution to society, become leaders in their chosen field or to have the skills to become qualified professionals.

Students leave the school demonstrating a high standard of cooperation, respect, courtesy and personal resolve as a result of the learning environment they have encountered and the day-to-day insistence on high standards of behaviour both in terms of interactions between themselves and with staff.

Further areas for improvement:

Introduce / develop the use of student self-assessment of the quality of their work / presentation in Key Stages 4 and 5

2021-22 Personal Development

Personal Development Target 1	Responsibility	RAG Rating		
Introduce / develop the use of student self-assessment of the quality of their work / presentation in Key Stages 4 and 5	ARW	Dec	May	Sept
How will you achieve this target?		Performance Milestones		
Y10 students will undertake a self-evaluation of the quality of their books in Terms 1 and 4 Y12 students will undertake one of the folder checks in Terms 2 or 3		Terms 1 and 4 Term 3		

Self Evaluation of Sixth Form

Sixth form provision in Physics is consistently very high with ALPS grades of 2-5 over the last 3 years. The school was approached by the Institute of Physics to act as a beacon school following the introduction of the 2015 specification, and whilst this was an honour we declined on the grounds that there was still substantial work to do with our GCSE curriculum at the time.

The physics curriculum is highly conceptual and we find that whilst students have achieved Grade 7+ at GCSE they still have deep-seated misconceptions that need to be corrected and most struggle with the high level of written precision required at A Level. It is for this reason that we have employed the strategy of setting summer work prior to entry into Year 12 and undertake initial testing to identify misconceptions and gaps in numerical skills and knowledge.

The department has a policy of regular folder checking and this has led to a marked improvement in the quality of students' work, filing and presentation.

Over the course of Year 12 students make substantial progress, but we have suffered from some students not being adequately prepared for their Year 12 exam. As a result introduced a strategy of being more prescriptive about the past exam papers that students are required to complete through their 2 years in the VI form.

The support for students in Year 13 is particularly strong with support given in holidays and over several months in Terms 3-5 at weekends.

Further areas for improvement:

Covid -19 has meant that progress towards core practicals is not as far advanced as it would normally be. Regular reviews are needed to ensure that students meet the CPAC criteria.

2021-22 Sixth Form Targets

Sixth Form Target 1	Responsibility	RAG Rating		
		Dec	May	Sept
	ARW			

Ensure that all students meet CPAC criteria				
How will you achieve this target?		Performance Milestones		
Review progress at the start of Term 1 Identify a timetable for completion for each teacher. Monitor regularly		3 nd week of Term 1 5th week of Term 1 End of Term 2 and 3		