

**FRIENDS' SCHOOL LISBURN**



**Megan Barbour Year 9**

**YEAR 9**

**CURRICULUM  
BOOKLET**

**2020 - 2021**



## INTRODUCTION

In Year 9 pupils consolidate and develop the learning and skills introduced in Year 8. They continue to be taught in Collects for all subjects with the exception of the asterixed subjects below for which they are divided into 6 groups to take account of the practical nature of the subject and the need for smaller teaching groups.

In Year 9 pupils study all of the subjects listed in the table below. The School week is divided into 45 periods, each lasting 35 minutes and where appropriate, pupils are timetabled for double periods in their practical subjects.

*Art and Design	2
English	5
French <i>plus</i> A Second Modern Language (either Spanish <i>or</i> German)	7
Geography	3
History	3
*Home Economics	2
Information Technology	1
* Science (2 periods each of Biology, Chemistry and Physics)	6
Mathematics	5
*Music	2
Religious Education	2
*Technology & Design	2
*Physical Education	2
Games	2
Pupils also study Learning for Life and Work which includes courses in Employability Citizenship and Personal Development.	1

Pupils are taught the Northern Ireland Curriculum and are given every encouragement to achieve the highest personal academic standards through challenging and engaging lessons. Teaching and learning strategies employed in the classroom provide pupils with appropriate opportunities to develop and display their creativity, independence, collaboration and encourage acquisition of the necessary skills for effective learning.

## SKILLS

The skill of effective **Communication** is at the core of all learning and is developed in a progressive way through Talking, Listening, Reading and Writing in English lessons and reinforced across all subjects. Similarly, pupils' ability in **Using Mathematics**, taught primarily through Mathematics, is developed and consolidated across the curriculum. **Using ICT** is also a crucial skill. The School has a well-structured programme to ensure pupils acquire and develop a wide range of ICT skills across all subjects. In Year 9 this includes: using Photoshop in Art and Design; developing skills in 3D CAD (Computer Aided Design) in Technology, and GarageBand in Music; as well as creating and delivering presentations in English and History.

The Northern Ireland Curriculum has identified development of **Thinking Skills and Personal Capabilities** as central to enabling pupils to become effective learners across all subjects. These skills encourage the ability to think both critically and creatively and to develop personal and interpersonal skills and dispositions which help them in their learning. The five skills are:



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- Managing-Information
  - Thinking, Problem-Solving and Decision-Making
  - Being Creative
  - Working with Others and
  - Self-Management

Pupils acquire all five skills through all subjects but focus on the development of the skills that are most appropriate to the content of each subject.

### **ASSESSMENT AND REPORTING**

Assessment is an integral part of the school curriculum. Teachers assess pupil progress in Year 9 both in an on-going way, referred to as Assessment **for** Learning, as well as in a summative way, which is Assessment **of** Learning.

Pupil progress is also reviewed by pastoral staff to monitor progress, identify both strengths and weakness and assist pupils in personal target setting to encourage improvement.

#### **Parent-Teacher Meeting**

Parents are invited to meet with subject teachers once a year. A letter with an accompanying interview card will be sent out a few weeks prior to the **Parent-Teacher Meeting** and parents will be able to make appointments to speak with subject teachers and Year Teachers. However, parents are encouraged to contact the pupil's Year Teacher, at any time, should they have particular concerns about their son/daughter's progress.

#### **Assessment for Learning**

Assessment for Learning is very much integrated into pupils' everyday learning. It is part of the teaching process used to develop pupils' knowledge and understanding. Teachers use techniques that best suit the nature of the work being assessed and the purpose of the assessment. It may, for example, take the form of independent or group tasks, class discussion, homework, project work, small class or unit tests and teacher observation of pupil participation as an individual or as part of a group. In keeping with the rationale of the revised NI Curriculum pupils are also encouraged to be fully involved in their learning and to review their work and set targets for improvement, thereby fostering self-responsibility and independence.

#### **Assessment of Learning**

Throughout the year, in most subjects, pupils will have summative or end of topic/ end of unit tests, many of which will be standardised across the whole year group.

#### **School Examinations**

Twice a year, pupils sit **School Examinations** over a week when they are off timetable. Copies of the school examination timetable indicating changes to break, lunch and end of school times are posted on the website a few weeks before the exams in the Academic, Internal Examinations area.

#### **Preparing for School Examinations**

There are a number of ways in which parents can support school and help pupils prepare for the end of year examinations.



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All pupils are given a Revision Timetables and are supported in the organisation of their exam preparation in the weeks leading up to the examinations.

In lessons, subject teachers will indicate areas on which pupils should focus revision, spend time in lessons preparing them for the content, sharing with them the types of questions they might be asked and giving guidance about how to set out answers and the timing of answers.

Pupils should try to revise in an on-going fashion throughout the year and **testing of knowledge is an essential part of any such revision.**

Parents can also assist with revision in some of the following ways:

- ✓ Preparation of a revision timetable which includes a plan of what needs to be revised in each subject to ensure all subjects and areas highlighted by subject teachers are covered
- ✓ Organisation of all notes/books required for revision
- ✓ A revision notebook in which the pupil can make notes, self-test and highlight areas for further revision
- ✓ Talk pupils through learning, hear vocabulary/prepared presentations for Speaking Tests in Languages and check accuracy of notes made from textbooks/learning booklets/class and home works
- ✓ Ensure pupil can work at a table/desk and has a quiet area in which to study
- ✓ Removing mobile phones to minimise distraction while working!

### **Target Setting and Action planning**

In keeping with the rationale of the revised NI Curriculum, pupils are also encouraged to be fully involved in their learning, to review their work and set targets for improvement, thereby fostering self-responsibility and independence. Each year, following the winter and summer examinations, pupils take time in Collects to review their performance in all subjects and set targets for improvement. More details about this are given in the Homework Planners pupils receive in September.

### **Homework**

**All pupils are expected to complete all homework to the highest standard.**

Each pupil is issued with a Homework Planner at the beginning of the school year in which to keep a record of the work set. The Planner should be brought to all subject classes. **Pupils must record all homework in their Homework Planner**, entering the details on the day the homework is to be submitted and completing it by the date set by the teacher. Collect teachers check the pupils' Homework Planner regularly and parents are also encouraged to check that homework is being done and to initial the Homework Planner each week. Parents will receive a homework timetable in September. Homework given will vary to reflect subject content and individual subject descriptions will give some indication as to what form it will take.

**Each subject department provides pupils with subject specific guidelines for the completion of homework and sanctions to be applied in the event of non-completion/submission of homework, work of an unsatisfactory standard or work that has not met the required deadlines.** Sanctions will include repeating work, giving additional work and detentions over lunchtime. In the event of persistent failure to complete homework, pupils will be referred to their Year Teacher and given an afternoon detention. **When out of class for sport, music lessons or other activities pupils must ensure that all homework set is completed.** The subject teacher will make a record on SIMS when work is not submitted and, in Key Stage 3, may also use the Homework Planner to communicate with parents.

Although it will be set according to the timetable, there will be times when homework may not arise naturally from class activities and it may not be useful to set a piece of work. There will be occasions, too, when pupils are involved in project work and will be required to complete a short additional task in



the evening to ensure on-going progress in the project. Pupils may also be set a larger piece of work which teachers might ask pupils to complete over two or more homework sessions. This will require careful organisation on the part of the pupil who will need to learn to manage his/her time at home in order to ensure they are able to complete all homework on time.

### **Home support**

Parents can support their son/daughter's learning at home by encouraging him/her to:

- ✓ establish a routine of regular self-testing of content in all subjects
- ✓ take time each week to review work, possibly even setting a few weekly targets for improvement
- ✓ check through his/her work for both accuracy and presentation
- ✓ manage and organise his/her books and materials required for lessons each evening
- ✓ read as much and as often as possible including books, newspapers, magazines or journals related to personal interests and subject related articles on the internet, all useful ways to extend general knowledge and literacy skills
- ✓ participate in extracurricular activities

### **Reporting**

Parents receive two reports of their son/daughter's performance over the year. The Winter Report reports the pupil's percentage achievement, year average percentage and a current attainment grade (CAG) in the January exams for each subject. Parents also receive a numerical descriptor to reflect their son/daughter's effort.

In addition to percentage marks reflecting performance, year average and CAGs in the May/June exams, the end of year Annual Report provides parents with a comment on pupil progress and achievement over the year in each subject. Pupils' interests and activities will be reported along with a summative comment from pupils' Collect or Year Teacher which includes a focus for development.

As required by the revised Northern Ireland Curriculum, the subject comment in 5 different subjects in the End of Year Report includes an evaluative reference to pupil progress in the each of the 5 Thinking Skills and Personal Capabilities. The table below indicates which subjects report on each of the 5 skills in Year 9.

<b>Problem-Solving</b>	Mathematics
<b>Being Creative</b>	Art
<b>Self-Management</b>	Physical Education
<b>Managing Information</b>	Religious Education
<b>Working with Others</b>	Learning for Life and Work

**The Geography Department reports on Using ICT in Year 9.**



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## SUBJECTS

### ART AND DESIGN

In Year 9, pupils study Art and Design for two periods each week.

The programme builds on and extends the experiences of Year 8. In class and through regular homework, pupils are presented with tasks which develop their artistic responses, imagination, help them express their ideas and become more aesthetically aware.

Each unit offers opportunities for pupils to develop their drawing and painting skills and they also begin to select and use related media in an informed way and for different purposes. In addition, pupils continue to place their work in context by investigating and appreciating the work of related artists, designers and craft workers and opportunities are provided, when possible, for these experiences to be first hand.

In Year 9, the units of work relate in particular to Surface Pattern Design, 3 Dimensional construction, Textiles and ICT. Pupils become more critically aware of the contexts and, in particular, how they relate to their everyday experiences. The intention is to show that Art and Design affects, influences and reflects the environment in which they live and, very importantly, that the skills and careers they observe, evaluate and practice are accessible to them.

As in Year 8, the Department reports through continuous assessment

This year increasing value is placed on personal choice and in developing work with increasing confidence, evolving from careful preparation and understanding of their tasks. Learning is affirmed through work created in class and at home, self-evaluation, peer review and class discussion.

Throughout the year Thinking Skills and Personal Capabilities are integrated into the lessons with particular emphasis on Being Creative. Pupils also use ICT as a medium to explore and develop the Surface Pattern Unit. At all stages, pupils are encouraged to utilize the school VLE Fronter, by accessing resources which support and extend their learning, in particular with research tasks which are completed at home. Pupils are encouraged to take part in a range of competitions and subject related activities throughout the year.

It is the aim of the Art and Design Department to extend and develop the creative skills of each pupil through a wide ranging and varied programme of studies to prepare them for Year 10.

### ENGLISH



The English department seeks to equip Year 9 pupils with the skills and experiences essential to their development as readers, writers and as contributors to society.

Pupils are encouraged to self-assess and to set goals for improvement. The understanding of language conventions and rules are integrated into topic work. Pupils are also formally taught spelling, grammar and punctuation through the set texts to enable transference of literacy skills and vocabulary building.

Assessment is embedded in each Unit of work with the emphasis on extending reading, writing and research skills, and on accuracy and fluency in written and oral expression. Pupils will have access to a year plan and guidance for the internal exams using Google Classroom. The class teacher will also guide



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pupils through set tasks, encouraging self-evaluation and target setting. Tasks are marked to a common mark scale.

Pupils should be working to develop a very good vocabulary and be able to read, write and communicate purposefully and with insight, exhibiting sophistication in expression, punctuation and language. In order to support and develop this aim, pupils are expected to read at home and during regular Library periods. At least one fiction or non-fiction book should be read at home each term.

All pupils will read two class novels – *The Book Thief*, by Markus Zusak, and *Roll of Thunder, Hear My Cry*, by Mildred D. Taylor.

Pupils in Year 9 are encouraged to enter a wide range of local and national competitions and to become involved in a variety of activities within the department.

**English Department Extra Curricular activities include:**

- Junior Book Club
- Junior Debating
- Public Speaking
- World Book Day events

**GEOGRAPHY**



After completing a year's study of Geography in Year 8, pupils are familiar with both the physical and human aspects of the subject. Year 9 is an enjoyable and interesting one where pupils will learn about Coasts, Population, Weather and Urbanisation. They will also get an opportunity to investigate the regional geography of Asia

Pupils make reference to the Oxford Geog. 1,2 and 3 textbooks for Key Stage 3. These books, along with a wide variety of other teaching resources such as the school VLE (Fronter), will hopefully foster a lifelong interest in geographical study and the world around us.

Pupils can expect at least one written homework per week and are encouraged to maintain high levels of organisation and presentation throughout. Assessment is on-going throughout the year in the form of standardised end of unit tests and the winter and summer exams.

Pupils are given opportunities to develop Thinking Skills and Personal Capabilities and in Year 9 there is a specific focus on Managing Information. Pupils are also given many opportunities throughout the year to consolidate their proficiency in ICT.

**HISTORY**

Having been introduced to the subject and its skills in Year 8, all pupils continue to study History for 3 periods per week in Year 9.

Pupils can expect to cover the following topics: The Renaissance in Europe; the Reformation and Tudor Britain; and Revolutions in England, the United States, France and Ireland.

Pupil acquisition of Thinking Skills and Personal Capabilities is integrated into the lessons, and clear emphasis is placed on developing pupils' ability to debate and form opinions.



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Pupils use a variety of recently adapted resources and textbook materials to supplement classroom activity. To enhance their learning, they make use of ICT facilities for research and presentation. Homework generally involves research, reading and writing tasks. Each unit of work contains key assessment areas which involve recording marks and setting targets for improvement. In the History Department, pupils are encouraged to be actively involved in monitoring their own progress. Pupils will make use of Google Classroom for revision, assessment and extension activities.

## HOME ECONOMICS

In Year 9 Home Economics the pupils study the following topics: The importance of food labelling; macronutrients; being an ethical consumer; food poisoning and the safe storage of food; food allergies and food intolerances; technology in the home; factors which affect the choice of equipment; and nutritional needs across the life cycle.



The work is divided into 6 Units and cookery practical is an integral part of the course. Pupils may cook once or twice per unit of work. The pupils are provided with all their worksheets and have use of text books in school.

There is some standardised homework which is included with their worksheets, but additional homework may be given when it is deemed necessary. Two homework tasks contribute to the winter report and the mark schemes are included with their worksheets. Additional worksheets, PowerPoint presentations and embedded videos will be available on Google Classroom to help reinforce learning covered in class.

An ICT task is set in Year 9, to **explore** and then inform their peers about another **country and their culture** and how this affects their lives and the food they eat. This activity will be used as evidence of Using ICT at Key Stage 3. The pupils produce a summary sheet of their findings. This task is also part of a Connected Learning project with other subjects.

In Year 9 pupils are also given opportunities to develop the skills of Managing Information, Being Creative and Problem Solving.

## ICT

The knowledge, skills and experiences pupils are given at Key Stage 3 has significant influence over the choices they make as they move up through the School. It is therefore important from an ICT perspective that the curriculum provides students with a sense of what IT as a subject area covers, not only within Friends' School but in the wider world in terms of potential career opportunities.

In Year 9, we seek to build upon the knowledge and skills developed in Year 8, developing more technical skills in areas including web development and programming, two significant areas of employment in Northern Ireland. Similar to Year 8, we also aim to develop pupil awareness in eSafety, in particular the potential dangers surrounding the use of social media. They also learn how to make effective use of spreadsheets, utilising formulas and charts to help manipulate and display data appropriately. Pupils also have the opportunity to learn how to program using Python, a text-based programming language and one which is widely-used not only in education but also in the software industry at large.



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In Year 9, pupils have two periods of discrete ICT covering the following areas:

- eSafety
- Types of Software
- Introduction to Spreadsheets
- Web Design
- Javascript
- The Internet
- Truth Tables
- Introduction to the Raspberry Pi
- Programming with Python
- Beginner Electronics
- Robotics using the Raspberry Pi

### **LEARNING FOR LIFE AND WORK**

All pupils in Key Stage 3 have access to Learning for Life and Work comprising the contributory strands of Citizenship, Employability and Personal Development. Learning for Life and Work aims to help pupils to develop knowledge and understanding of the challenges and opportunities that they may encounter both inside and out of School. It also enables them to comprehend the different values, attitudes, needs and perspectives of their own and other communities. Additionally, it aims to develop the skills, attitudes and values necessary for independent thinking, informed decision making and responsible actions.

Learning for Life and Work is delivered in timetabled classes and during special Learning for Life and Work days, at specified times throughout the year, when a range of professional agencies come into School to deliver aspects of the programme. This allows the expertise of external providers to support our curricular provision.

In Year 9 pupils continue to learn through a composite programme of Citizenship and Personal Development in one period per week. There are no timetabled classes for Employability in Year 9.

The Year 9 Learning for Life and Work programme covers the following topics:

- Relationships, Self-Concept, Morals Values and Beliefs and Drugs Prevention, through Personal Development.
- Equality and Social Justice, through Citizenship

All Learning for Life and Work classes are delivered by Collect staff and the Key Stage programme is evaluated each year to ensure that pupils are receiving relevant and valuable provision that enables progression. Pupils have the opportunity to evaluate all the external programmes and therefore contribute to the planning for subsequent year groups.

Staff report on Learning for Life and Work progress in the end of year reports and the skill of Working with Others is highlighted in all year groups. Learning for Life and Work opportunities are also available in a range of other curricular subjects to enable pupils to experience links across the curriculum.

### **MATHEMATICS**

All pupils have five periods of Mathematics in Year 9 and are taught in Collect groups. In Year 9, pupils further develop their understanding of all areas of Mathematics. Some of the new topics introduced in Year 9 are significant figures, standard form, straight line graphs, transformations, angles in polygons and trial and improvement. Thinking Skills and Personal



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Capabilities are developed through active learning strategies within the classroom. In Year 9 there is particular focus on Managing Information and Problem Solving. Pupils use a pupil workbook as well as STP Mathematics 8A.

Homework generally involves further practice on work covered in class. A maximum of four homeworks may be set per week with formal homeworks being completed in a homework book. Pupil progress is assessed through topic test. Pupils are encouraged to be actively involved in monitoring their own progress.

Revision material is available on Fronter and pupils are encouraged to make use of this in order to further support their learning and develop their skills of independent study.

All Year 9 pupils are encouraged to enter the UKMT Junior Mathematics Challenge. Two Year 9 and 10 pupils represent the School on the Junior Maths Team at the UKMT Junior Team Maths Challenge. Additionally, pupils will have many opportunities to display and exhibit their work in the classroom. Year 9 pupils are also encouraged to join the Junior Mathematics Club which aims to extend and enrich the taught curriculum.

### **MODERN LANGUAGES**

In Year 9, all pupils are given the opportunity to extend their experience of languages by taking up a second language, either German or Spanish. All pupils continue to learn French alongside the second language in Years 9 and 10.

The Modern Languages Department is lively, and engages pupil enthusiasm through a wide range of extracurricular activities. Year 9 pupils particularly enjoy their French Breakfast at the end of the autumn term and have the opportunity, every few years, to participate in a Junior Languages trip to France. In all three languages, **homework** generally involves vocabulary learning and completion of reading and writing tasks. There is generally one formal written homework every week. Parents can help by checking the presentation of their son/daughter's homework and assisting with vocabulary learning. Vocabulary is tested regularly, and revisited frequently. Pupils should prepare thoroughly for these tests. Pupils are encouraged to be actively involved in monitoring their own progress.

Thinking Skills and Personal Capabilities are developed through all languages teaching and in Year 9 there is particular focus on development of the skill of Self-Management. Pupils complete Reading and Writing examinations mid-year and again at the end of the year, when they also sit Listening and Speaking tests.



### **French**

In Year 9, pupils cover the following topic areas: hobbies, shopping, travel and holidays, school, food, describing others, and parts of the body. Listening, Speaking, Reading and Writing skills are all developed. Pupils build on the foundations of grammar acquired in Year 8 and further extend this to include possessive adjectives, *-ir* and *-re* verbs, a variety of irregular verbs, working with the infinitive, and the simple future tense, as well as learning the Perfect Tense using *avoir*.

Pupils continue to use ***Encore Tricolore book*** 1 and then progress to use ***Encore Tricolore***, Book 2. To supplement this course, they use ICT packages such as *Just Click*, and a variety of online resources,



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including [www.languagesonline.org](http://www.languagesonline.org). Pupils are now familiar with using Fronter and Google Classroom as part of their Year 8 French course and can find a selection of resources, including quizzes, videos, and other materials to consolidate their learning on the Year 9 French Fronter course. Supplementary materials to aid revision for both winter and summer exams are also available on Fronter. Pupils have 3 periods of French.

### German



In Year 9, pupils cover the following topic areas: family; pets; school; where they live; food and drink; hobbies and weather. Listening, Speaking, Reading and Writing skills are all developed. Pupils build on language skills acquired in Year 8 French. They learn how to use the present tense of common verbs as well as learning about gender and cases.

Pupils follow the *Klasse* course and by the end of the year will have completed *Klasse 1*. To supplement this course, they use ICT packages such as *Klasse Integral*, and a variety of online resources. Fronter and Google Classroom also form an integral role in consolidating learning. Pupils can find quizzes, videos and other revision materials to assist them in their preparation for winter and summer exams on the Year 9 German Fronter course. Pupils have 4 periods of German per week.



### Spanish

In Year 9, pupils cover the following topics: greetings; personality adjectives; numbers; months of the year and birthdays; alphabet; pets; colours; hobbies; weather; sports; days of the week; school subjects; opinion verbs and adjectives; school facilities; school day; family members; physical appearance; where they live and their opinion of it; their town; time; and café vocabulary. Listening, Speaking, Reading and Writing skills are all developed. They also acquire grammatical concepts such as genders, plurals, adjectives, question words, possessive adjectives, regular verbs and some irregular verbs. Pupils use *¡Viva!*. To supplement this course, they use a variety of online resources. Pupils are encouraged to use Fronter and Google Classroom in order to supplement and extend their learning experiences. Quizzes, videos and other revision materials are available on the Year 9 Spanish **Fronter** course to assist pupils with their preparation for winter and summer exams. Pupils have 4 periods of Spanish per week.

### MUSIC

In Year 9, pupils engage in music in a practical way through keyboard skills, guitar, tin whistle, boomwhackers and listening activities. Music Technology is central to the course with one composition / arranging task each term. They have opportunities to improvise, compose and work together in groups. The course aims to build on pupils' experience in Year 8, improving pupils' self-esteem and self-expression through active and enjoyable music making. Pupils are encouraged to perform ensemble groups suited to their age and ability. Choirs, orchestras and other ensembles perform frequently at events inside and outside school. In keeping with Year 8, pupils have a double period of music each week and a Google classroom provides guidance on homework, assessments and how their grades are compiled.



## PHYSICAL EDUCATION

In Year 9, pupils have two periods of PE and two periods of Games per week. Boys participate in the following activities: Health Related Exercise, Gymnastics, Badminton, Basketball, Striking and Fielding Games, Athletics and Softball. Games activities involve Rugby, Hockey and Cricket. Year 9, girls participate in a range of activities which include Health Related Exercise, Gymnastics, Athletics, Hockey, Netball, Dance, Rounders, Tennis and Badminton. There are many opportunities for pupils to develop Thinking Skills and Personal Capabilities in PE and in Year 9 there is specific focus on the skills of Managing Information and Working with Others with reporting on Self-management.



Within all Physical Education lessons learning intentions focus on transferable skills pupils can use in other situations. These include:

- Pupils learning to work effectively as a team
- Pupils learning to work independently
- Pupils learning to work with a partner
- Pupils being able to communicate their own knowledge of Physical Education to other pupils.
- Pupils using ICT to analyse and discuss performance

## RELIGIOUS EDUCATION

RE classes build on the knowledge and skills acquired in Year 8.



In Year 9, pupils cover the following topic areas; Conflict, the life of Martin Luther King, the life of Moses and Judaism. At all times we seek to make the course relevant to life to today. Pupils use a variety of in-house work booklets and can access additional resources on Fronter. Thinking Skills and Personal Capabilities are developed through active learning and assessment for learning strategies and in Year 9 there is specific focus on the skill of Managing Information.

Homework involves research, writing and presentation tasks. Pupils are encouraged to continue their development as independent learners. Parents can help by discussing homework tasks and encouraging pupils to plan and work independently. Throughout the year pupils complete a variety of standardised assessments and pupils will have the opportunity to evaluate their work and effort.

## SCIENCE

In Year 9 pupils study the three Sciences of **Biology**, **Chemistry** and **Physics** separately and are taught by subject specialists.

### Biology



In year 9, pupils have two periods each week and cover the following topics in Biology: Photosynthesis, Food and Diet, Digestion, Teeth, Ecology and Keys.

Practical and investigative skills are developed within the course content and through assessment for learning activities pupils develop their skills in presenting a scientific report.



Thinking Skills and Personal Capabilities and cross curricular skills are infused into the content covered giving opportunities for instance, to work with others, problem solve and reinforce mathematical skills. Pupils are taught using work booklets with learning outcomes clearly stated at the beginning of each booklet. Lessons are also resourced through the use of animations, Power Points, images, relevant science programmes and are taught using a variety of learning strategies. Literacy is promoted through the use of subject specific vocabulary, spelling tests and opportunities for extended writing where quality of written communication is the focus. Pupils will be given opportunities to develop data handling and numeracy skills through a range of specific tasks and questions. These skills are essential preparation for GCSE.

Homeworks are incorporated into the booklets and are generally set on a weekly basis. Homeworks include completion tasks, research, writing up an experiment, learning definitions and revising for tests. At the end of each unit of work pupils complete a standardised test. Revision resource materials can be accessed on Google classroom to help with exam preparation.

## Chemistry

In **Year 9** pupils study Chemistry for 2 periods each week.

The Chemistry course in **Year 9** focuses on recognising the many substances that man uses and then making new substances from them. Therefore, Chemistry exerts a great influence on our everyday lives; from the food we eat, the clothes we wear, to the houses we live in.



The following topics are covered:

- Safety
- States of matter
- Separation techniques
- Atoms and Elements
- Why is the Belfast Dome green?
- Investigation of Chemical Change
- Rusting

All laboratory based skills are developed through these topics. Thinking Skills and Personal Capabilities are developed through active learning and assessment for learning approaches and incorporate ICT. Pupils are given an opportunity through experimental work to apply mathematical concepts to interpret observations and data, to draw conclusions. Pupils will be encouraged to write legibly using accurate spelling, punctuation and grammar.

Homework seeks to support pupils and give opportunities for them to consolidate and apply their knowledge, skills and understanding beyond the classroom. e.g. graph work, long questions.

Homework will include questions to test knowledge and understanding, together with learning for tests, research and planning for investigations.

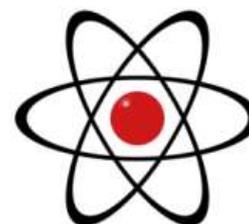
Extra revision sheets and embedded videos are available on Fronter and Google classroom to help reinforce learning covered in class. At the end of each topic there is a standardised assessment. Pupils are encouraged to keep a record of their marks and to set targets for development.



## Physics

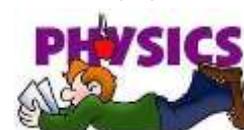
In Year 9 pupils cover the following topics in Physics:

- Forces
- Energy
- Light
- Earth and Space



Practical and investigative skills are developed through assessment for learning activities; pupils develop their skill in presenting a scientific report together with managing information, working with others, decision making and problem solving which will include using mathematical equations where appropriate. Pupils are given opportunities to develop the following mathematical skills: solve scientific problems, collecting data, presenting information and drawing conclusion using scientific and mathematical language. Lessons are resourced through the use of animations and active learning activities, Power Points, images, simulations, relevant experiments and science programmes. Literacy skills will be tested when pupils are given key experiments to write-up where extended writing will be used.

Homework gives the pupils the opportunity to develop skills on which they have been focussing in class and are generally set on a weekly basis. Homeworks include completion tasks, research, writing up an experiment, learning definitions and revising for tests. At the end of each unit of work pupils complete a standardised test and pupils are encouraged to record marks and set targets for improvement. Pupils' will be given the opportunity, and are encouraged to use 'Fronter' (a virtual learning environment) and 'Google Classroom' to enhance their learning. This contains additional notes, videos of key experiments/information and useful links to websites that might help them in their understanding of topics taught as well as hints on both the winter and summer examinations.



## TECHNOLOGY AND DESIGN

Teaching in Year 9 provides pupils with opportunities to consolidate and develop the skills introduced in Year 8. Pupils have two 35 minute periods per week.

In Year 9, pupils engage in the following activities: manufacturing a printed circuit board using electronic components and soldering equipment, using Computer-Aided Design (CAD) to design three-dimensional products, manufacturing a motor driven buggy and a numeracy activity related to electronics. The Year 9 course is designed to be challenging and engaging and there is a focus on using energy and control within product design. It also seeks to contribute to the development of Thinking Skills and Personal Capabilities. In Year 9 pupils focus on the skills of Thinking, Problem-Solving and Decision Making, Self-Management and Working with Others.

Pupils use A4 folders to store their work. Booklets are given out for all topics covered during the year. Pupils are expected to store these safely in their folders. Pupils can leave their folders on an allocated shelf in the Technology and Design department when they do not need to take the folder home. Homework is usually in the form of work sheets or a graphics task. If a major graphics task has been set then pupils are usually given three to four weeks to complete it. Pupil work during term time is assessed and is used for 50% of the marks on the winter and summer examinations. This includes practical, graphical and written work.



Teaching and learning resources can be accessed on the **Frontier** VLE and it is also used as a means of collecting in pupil work. Development of pupil numeracy and literacy is addressed through various practical and non-practical tasks throughout the year.

