

A photograph showing a male teacher with a beard, wearing a white shirt and a dark tie, leaning over a desk. He is looking at a tablet held by a young boy in a school uniform. Two girls are also visible in the foreground, looking towards the tablet. The background shows a classroom setting with a whiteboard and bookshelves.

Year 8 Curriculum

At Dunottar we want to add value to every pupil so that, no matter what a child's individual abilities are, they are challenged and supported to develop a love of learning and to be prepared for the opportunities, responsibilities and experiences of adult life. Our Warrior Learner concept encourages our pupils to embrace the behaviours of aspiration, tenacity, curiosity, creativity, collaboration, inclusivity and independence. Lessons are designed to allow pupils to display these behaviours and reporting at KS3 refers directly to these.

Lessons are well-paced, challenging and fun. Within the curriculum each pupil is encouraged to achieve his/her full potential and the needs of each pupil. The curriculum aims to educate the whole person through creative thinking and creative learning and the curriculum at Dunottar School extends far beyond the classroom and is enriched by a wide range of co-curricular activities.

On the following pages you will find an overview of the topics covered in each subject during Year 8.

English

In Year 8, students build on the knowledge and skills that they acquired in Year 7. As well as studying modern texts, they are introduced to the history of the English language, studying extracts from a range of historical texts. We also introduce them to Victorian poetry as we move towards the study of 19th-century literature in Year 9.

In Year 8, students study the following:

- History of language
- Modern prose
- Modern drama
- 19th-century poetry
- Examination preparation and practice
- Oracy

As reading underpins the whole curriculum, we continue to encourage wider reading at home; a Year 8 reading list can be found in: <https://www.dunottarschool.com/For-Parents>



Mathematics

In Year 8, students develop their knowledge and skills on many of the areas studied in year 7; learning formal written methods and efficient calculator methods. In addition, they also study:

- Indices
- Linear equations & graphs
- Ratio and proportional reasoning
- Composite shapes
- Circles
- Volume and 3d visualisation

All students in the year group have their maths lessons at the same time and are taught in ability sets. All sets follow the same flow of topics meaning that students can easily move from one set to another to maximise their learning. Students use Hegarty Maths both in class and for homework, they can access both video lessons and quizzes on www.hegartymaths.com. In the summer term, a large number of students have the opportunity to compete in the Junior Maths Challenge, a national competition. Each year, 4 students are nominated to take part in ten Royal Institution Maths Masterclasses on Saturday mornings at the University of Surrey.

Science

Pupils are taught in sets and continue to be taught Biology, Chemistry and Physics in blocks. Activities designed to promote thinking skills in science are continued in appropriate contexts throughout the year.

In Year 8 the topics covered include:

Biology

- Digestion and nutrition
- Biological systems and processes
- Plants and photosynthesis

Chemistry

- The periodic table
- Reactivity
- Energetics and rates

Physics

- Electricity and magnetism
- Sound waves
- Forces in action
- Matter

Geography

Geography continues to focus on enquiry and asking questions about the world around us. 'Ecosystems' begins the Autumn term with a look at global biomes down to local ecosystems. A fieldwork enquiry is conducted in the school grounds to investigate the temperate deciduous woodland on our doorstep and how the density of the canopy can affect the soil moisture, pH and light intensity. Global ecosystems focus on the Tropical Rainforests culminating in a study of the Amazon rainforest and the threats and opportunities presented by its exploitation. Cause and Effect are investigated and pupils are encouraged to think about possible outcomes and consequences for different decisions which will be referred to and applied to various contexts through the course.

'Population' is studied through investigating population growth, distribution and migration. Pupils will be challenged to explain why Trump wants to build a wall between the USA and Mexico and will investigate the data of migration routes through both legal and illegal routes.

A local and national issue is investigated through our 'Should we allow fracking in Horley?' unit of work where pupils investigate the positive and negative impacts on a variety of scales of resource exploitation and question whether, with increasing global temperatures rising, we should be pursuing a fossil fuel future at all. Investigative map work and debate of the issue are key components of this unit.

We conclude the course by investigating whether Tourism has had a negative impact at Box Hill and visit the National Trust site to conduct transect surveys, vehicle tally and assess service provision as well as drawing field sketches from the observation point.

History

The History curriculum is based on a series of enquiry questions. In Year 8, we cover aspects of history from 1500-1900 and these questions are:

- Why was there a 'religious helter-skelter' in Tudor times?
- 'A Woman in a Man's World?' - how effectively did Elizabeth I deal with the challenges she faced?
- Was England turned 'upside down' in the 17th century?
- How similar was the experience of the English people in the Industrial Revolution?
- How did people 'move about' during the 19th century?
- Was the 'grass greener' living in industrial towns and cities?
- What were people willing to do to achieve political change in the 19th and early 20th centuries?

These topics are explored through the use of source evidence encouraging the students to consider 'How do we know these things?' and also considering whether changes were necessarily to the benefit of all those involved.

Religious Studies

In Year 8 we explore ethical and religious questions, looking at the following topics:

What does it mean to be a hero? An in-depth look at individuals who might be considered heroic. The unit examines how religious and non-religious belief systems have helped inform people's views and change their actions.

What does it mean to be a Muslim in today's world? This unit will help pupils understand the belief systems of Islam. What are the main cornerstones of the faith? What do they believe and how do they practice their faith? We will also examine some of the more difficult areas such as terrorism and the Islamic response to it.

Ultimate Questions This is a philosophical and ethical unit based around the most important and poignant questions in life such as: Can we prove God? What is the meaning of life? Is there a correct way to live our lives? How do we make moral decisions?

Pupils enter a competition called 'Spirited Art' where they work independently to choose a spiritual theme and create an artistic and written piece explaining what they have done. Previous topics have included:

'Why does evil happen?' 'How do you know you're not dreaming?' and 'where is God in the modern world?'

Foreign Languages

In Year 8 pupils consolidate and extend their learning from Year 7 and increase the complexity of the language they can manipulate. They start practising skills such as translation and role-plays that are required for effective communication and in preparation for GCSE.

In French pupils review and extend the basics acquired the previous year and extend their vocabulary and increase their grammatical knowledge and application through topics including clothes, weather, TV and films, likes/dislikes and healthy living. They will use present and perfect tenses. During the Spring term pupils will explore vocabulary for topics including sports, musical instruments, expressions of time, daily routine and holidays and be introduced to reflexive verbs.

In Spanish pupils review and extend the basics acquired the previous year and extend their vocabulary and increase their grammatical knowledge and application through topics such as houses, rooms and furniture, our local town/area, the weather, seasons and holidays. They will learn about interesting places in Spanish speaking countries and make comparisons.

Art

Observational drawings using varied media will be the basis of the first unit of work, allowing pupils to experiment with shape form, texture, pattern, colour and scale. Further skills will be developed in the creation of 3D work and printmaking through the themes of natural forms and manmade objects. Pupils are also introduced to 'abstraction'. Pupils continue to develop their understanding of art history and critical thinking; this is then used to inspire pupils in their own work. Sketchbooks continue to be used to plan, evaluate and develop ideas alongside studio-based work.

Design & Technology

Design & Technology is on a rotation with Food & Nutrition. In Year 8, the first project is a "Day of the Dead" themed E-Textiles module where the outcome is a fabric decoration with a flashing LED circuit using electronic components and conductive thread. Pupils learn hand sewing skills and how to design a basic circuit and a pattern for sewing. The second project, 'Wiff-Waff', is a woodwork CAD/CAM project where the outcome is an ergonomically designed table tennis bat. Pupils learn about ergonomics in design and how to develop designs through modelling (clay and polymorph). They further develop their CAD/CAM skills to design a neoprene layer using the laser cutter and enhance their woodwork skills to produce a bat with an ergonomic handle.

Food & Nutrition

During Year 8 students will increase their knowledge of nutrients and expand their repertoire of dishes whilst learning key cooking skills. The emphasis is on enjoyment and the love of good food. Pupils are encouraged to adapt all recipes to suit their tastes but they are discouraged from sweet additions. Dishes might include: macaroni cheese with a gratin topping, chilli con carne, jalousie, chicken chow mein, risotto, focaccia, cheese biscuits, meatballs and chocolate brownies.

Pupils will learn about five key nutrients, their sources and functions in the body, the relationship between Vitamin C and Iron, Calcium and Vitamin D. Functions of ingredients will include bread-making and pupils will investigate the conditions needed for yeast to develop. Skills learnt include: portioning, use of a high risk food, shaping, bread-making, melting method of cake making, use of convenience products, pastry making, all-in-one white sauce, absorption method, use of food processor, use of hob to make a reduction sauce. There will also be an investigation into a food commodity, where pupils will extend their knowledge of the functions of ingredients. Pupils will complete an independent cooking task based on a meal for a school canteen.

Computing

In Year 8 we challenge pupils to think about the question 'what happens when you type in a web address and press enter.....how does the website appear on your screen?' We discover how the internet works and then go on to explore how websites are programmed using HTML. Pupils enjoy the creativity of creating web graphics and celebrate the achievement of coding their own pages. Sphero BOLT is an app-enabled robotic ball and a valuable teaching tool. Programming with the Spheros provides a wealth of opportunities for pupils to learn many fundamental programming concepts in an interactive and engaging way.

Drama

During Year 8, pupils build on the skills and knowledge they have gained in Year 7. They continue to consider the aim and purpose of a piece of theatre, and are introduced to the process of devising. Pupils explore a range of theatrical conventions and approaches to creating new and original pieces of theatre.

Later on in the year, pupils study the scheme 'Shakespeare in Performance'. Looking at how to use Shakespeare's language to aid in their performances, as well as exploring a range of Shakespeare's characters and plays.

Music

In Year 8, keyboard skills and understanding of harmony is developed through pieces of increasing difficulty. Pupils learn about:

Ladders: the study of tonality through learning about the building blocks of scales; major, minor, pentatonic and chromatic. Pupils learn to play 'Für Elise' by Beethoven on the keyboard with several versions of difficulty to provide challenge at different skill levels.

Pop Music of the 60s: primary and secondary chords and an understanding of how to group chords into progressions to play a song. Pupils learn the chord patterns of songs by the Beatles and combine them with bassline.

Loops & Sequencing: music technology and the role it plays in the music industry today; pupils learn to sequence tracks onto music software, create loops, riffs and manipulate these using electronic effects. A key part of this unit involves learning about parts of the drum kit and pupils learn to perform and record different drum grooves in time to a song.

Variation Form: Understand how the elements of music can be used to make musical variations. Compose a theme and variations using devices such as inversion and retrograde.



Physical Education

In the Lower School students follow a programme which includes rugby, football and cricket for the boys, netball, lacrosse and cricket for the girls and swimming for all. Athletics, rounders and tennis also take place in the summer term. There are also opportunities to experience a host of other activities for example, badminton, handball, fitness and hockey to name a few. Pupils are encouraged to experience a number of roles, including coaching and officiating and gain greater independence within their sporting development. Co-curricular clubs run during both lunchtimes and after school for both competitive and recreational activities. Fixtures for our main competitive sports take place every Saturday with occasional mid-week fixtures for other activities.

PSHE

The pupils follow a progressive course which builds on topics over the years. Topics include: Healthy Body/Healthy Mind, Drugs and Alcohol, Interpersonal Skills, Enterprising Skills, The Law and Free Speech, British Identity and Values, and CV Writing,

Expanding Horizons

This subject offers the chance to explore topics that are important to our pupils and the ever-changing world in which they are growing up. Through discussion and debate they will learn how to evaluate information, view issues from different perspectives and develop informed opinions. Topics we will cover include 'having a say', poverty in society and competing demands for government money, tolerance and equality, censorship and oppression.

| Subject | Lessons/week | Subject | Lessons/week |
|--------------------|--------------|----------------------------|--------------|
| Maths | 5 | Food/DT (Carousel) | 2 |
| English | 5 | PE | 2 |
| History | 2 | Games | 3 |
| Geography | 2 | Biology | 2 |
| RE | 2 | Chemistry | 2 |
| French | 2 | Physics | 2 |
| Spanish | 2 | PSHE | 1 |
| Expanding Horizons | 1 | Computing/Drama (Carousel) | 2 |
| Art | 2 | Music | 1 |