

## The Year 8 Curriculum at Cavendish

Throughout each year of Key Stage 3 at Cavendish pupils follow a broad and balanced curriculum. Within each subject they study a variety of topics which are designed to develop and deepen their skills and knowledge so that they are prepared for the demands of the GCSE courses they will take in Year 10 and 11. Below is some brief information about the topic areas they will study in each subject. If you would like additional information about the topics please contact the Head of Faculty for each subject. Their contact details can be found on the school website.

### English

Term	Topic
1	Against the Odds - a scheme that allows pupils to analyse and explore a variety of non fiction texts using GCSE English Language style questions featuring people who have overcome great challenges as well as practising non fiction writing skills.
2	Animal Farm by George Orwell: a scheme that involves pupils reading and exploring the key issues and themes in Orwell's classic novel. They will analyse the context, characters and plot to allow them to attempt GCSE Literature style evaluation skills.
3	Dystopian fiction: a scheme that will introduce some famous examples of dystopian fiction to pupils before they write their own openings or short stories in the genre.
4	War Poetry: a unit where pupils will be able to read and analyse several examples of poetry from the first World War, including poems by Wilfred Owen and Jessie Pope. This will equip pupils with the skills needed to analyse poetry in GCSE English Literature.
5	Macbeth by William Shakespeare: pupils will read and analyse this tragedy to build upon their language analysis skills and increase their understanding of the context of the time in which Shakespeare was writing. This will help support them in studying Shakespeare at GCSE level.
6	Creative Writing: In this final scheme, pupils will be encouraged to use their imaginations to read and write in a variety of styles for a range of purposes, honing their skills in using ambitious punctuation, sentence structures and vocabulary.

### Maths

Classes in Maths are set according to ability. Each class follows a scheme of work tailored to their ability which very much focuses on improving understanding of topics and mastering concepts. Each scheme visits a range of topics over the year, covering aspects of Number, Algebra, Shape and Handling Data, and we try to include problem solving in our lessons wherever possible. The schemes of work reflect the changes to the new Maths GCSE; we have added or modified our teaching to enable students to feel confident with new content from an earlier age.

Each class will sit short tests over the year to see progress within a topic. We would hope that students would then use this information about their strengths and weaknesses to complete some independent work to address these areas to improve. Pupils will sit more formal exams three times in the year. These results will inform the grades that are reported home.

Each pupil will have access to HegartyMaths; an online Mathematics programme. We will sometimes use this software in lessons and it can also be used to complete homework or revision activities.

Pupils will be given guidance on how to use HegartyMaths effectively.

<b>Securing Knowledge (Sets X3 and Y3)</b>
Unit 1: Angles
Unit 2: Ratio and Proportion
Unit 3: Equations and Formulae
Unit 4: Fractions and Probability
Unit 5: Units
Unit 6: Questionnaires and Presentation
Unit 7: Area, Perimeter and Volume
Unit 8: Percentages
Unit 9: Linear Graphs
Unit 10: Data Analysis
Unit 11: Constructions
Unit 12: Non-Calculator
Unit 13: Powers and Roots
Unit 14: Transformations

<b>Developing Knowledge (Sets X2 and Y2)</b>
Unit 1: Angles
Unit 2: Ratio and Proportion
Unit 3: Equations and Formulae
Unit 4: Transformations
Unit 5: Fractions and Probability

Unit 6: Units
Unit 7: Questionnaires and Presentation
Unit 8: Area, Perimeter and Volume
Unit 9: Percentages
Unit 10: Linear Graphs
Unit 11: Data Analysis
Unit 12: Constructions
Unit 13: Non-Calculator
Unit 14: Powers and Roots

<b>Challenging Knowledge (Sets X1 and Y1)</b>
Unit 1: Angles
Unit 2: Ratio and Proportion
Unit 3: Equations and Formulae
Unit 4: Fractions and Probability
Unit 5: Units
Unit 6: Area, Perimeter and Volume
Unit 7: Percentages
Unit 8: Linear Graphs
Unit 9: Transformations
Unit 10: Data Analysis
Unit 11: Trigonometry
Unit 12: Non-Calculator
Unit 13: Indices and Standard Form
Unit 14: Constructions

## Science

In Science pupils are taught a range of Biology, Chemistry and Physics topics. They rotate throughout the topics set out below throughout the year. Pupils sit knowledge tests in lessons for each topic, as well as 3 formal Phase Tests a year. These results are combined to inform the grades that are reported home to parents.

### Phase 1:

Digestion  
Breathing  
Elements  
Periodic Table  
Contact Forces/Pressure

### Phase 2:

Inheritance  
Evolution  
Types of Reaction  
Chemical Energy  
Wave Effects  
Wave Properties  
Magnetism  
Electromagnets

### Phase 3:

Photosynthesis  
Respiration  
Climate  
Earth Resources  
Work, Heating and Cooling

## History

Term	Topic
1	Why is it Important to Acknowledge Britain's Role in Slavery?
2	Were the Suffragettes Terrorists?
3	How did World War One Change the Face of the World?
4	Were the Inter-War Years a Time of Peace?

5	Does Science Thrive in Times of War?
6	Why did People have to Ask to be Treated like People?

### Geography

Term	Topic
1	North America
2	North America
3	Mexico, Central America
4	South America
5	South America
6	Conflict around the world

### RE

Term	Topic
1	What is the nature of Hinduism?
2	How does Sikhism show its purpose?
3	How do Buddhists live a good life?
4	What does it mean to be human?
5	What are religious attitudes to racism?
6	How do religions respond to the environment?

### Spanish

Term	Topic
1	Free time activities, describing friends, daily routine, nationalities
2	Going out, places in town, making excuses

3	Holiday destinations, means of transport, holiday activities
4	Mealtimes, shopping for food, eating at a restaurant
5	Clothes, school uniform, trip to Argentina
6	Tourist destination Barcelona, shops, directions

### French

Term	Topic
1	Television programmes, films, books, internet
2	Tourist attractions in Paris, planning what to do, saying what you did
3	Personality, clothes, future plans
4	Description of your home, food and meals, future events
5	Talent and ambition, say what you can do, describe people's personalities
6	World geography and French-speaking countries

### Computing

Term	Topic
1	<p><b>E-safety</b> Students will recognise the importance of being safe and responsible users of technology. They explore explore e-safety based around 5 key principles:</p> <ul style="list-style-type: none"> <li>● Think before you share ("be sharp"),</li> <li>● Check it's for real ("be alert"),</li> <li>● Protect your stuff ("be secure"),</li> <li>● Respect each other ("be kind").</li> <li>● When in doubt, Discuss ("be brave")</li> </ul>
2	<p><b>Python Programming</b> Will learn how to code a simple text-based adventure game in the Python programming language. Programming syntax will focus around user input, output and boolean logic (selection) statements. Students will have the opportunity to extend their program with the use of iteration (i.e. loops).</p>
3	<b>Computer Communication</b>

	<p>Explore key details of how the Internet works:</p> <ul style="list-style-type: none"> <li>● Understanding the principle of a packet-switched network and that data can have multiple routes through a network</li> <li>● Understand the physical infrastructure of internet</li> </ul> <p>The importance of communication protocols such as TCP, IP, HTTP Will have the opportunity to script simple web pages in HTML (including some embedded CSS).</p>
4	<p><b>Developing a multimedia product</b> Will produce a multimedia project. Students will:</p> <ul style="list-style-type: none"> <li>● Gather and process survey data; gathering relevant data that can inform the project outcome.</li> <li>● Develop the skills to produce a simple multimedia digital artefact. Students will consider fitness-for-purpose and usability in their outcomes; ensuring relevance for the target audience.</li> </ul>
5	<p><b>Logic and the CPU</b></p> <ul style="list-style-type: none"> <li>● Can fill out truth tables for the AND, OR, NOT boolean operators</li> <li>● Can create simple digital circuits (combining AND, OR and NOT operators)</li> <li>● Gain a foundation understanding that complex boolean digital circuits combine to make a computer's Central Processing Unit.</li> <li>● Understanding of the CPU's fetch-decode-execute cycle</li> <li>● Can create an assembly language program using the Little Man Computer CPU simulator. And to assemble programs into machine code for operation.</li> </ul>
6	<p><b>Computational Thinking</b></p> <ul style="list-style-type: none"> <li>● Will learn the binary search, linear search, and bubble sort algorithms. Plus evaluate their efficiency.</li> <li>● Create algorithms, in flowchart format, that models a real-world problem. Students will need to apply computational thinking: Decompose the problem, and apply abstraction to determine relevant details for the given scenario..</li> </ul>

## PE

Term	Topic
1	Boys – Football/ Badminton Girls – Netball/ Basketball Mixed – Basketball Dodgeball

2	Boys – Basketball, HRF Girls – HRF, Football Mixed – Basketball, Scooting
3	Boys – Dance, Handball Girls – Badminton, Gym Mixed – HRF, Dance
4	Boys – Rugby, Gym Girls – Dance, Trampoline Mixed – Badminton, Football
5	Boys – Athletics Girls – Athletics Mixed – Athletics
6	Boys – Cricket, Tennis Girls – Rounders, Stoolball Mixed – Stoolball, Rounders

#### Art

Term	Topic: Colour Theory
1	Baseline Assessment Colour wheel
2	Complementary Colours and packaging
3	Tints and Shades
4	Deepening Colours using Complementary Colours/ Browns
5	Artist strip colour mixing assessment
6	Artist strip extended painting

#### Drama

Term	Topic
1	Commedia Dell A'rte
2	Monologues & Duologues
3	Devising (Heaven and Hell)
4	GCSE Taster Playwrights
5	GCSE Taster Theatrical Practitioners

6	Further Devising skills
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### Music

Term	Topic
1	African Music
2	Band Ensemble Skills
3	Variations
4	The Blues
5	Form and Structure
6	Film Music

### Design Technology

Pupils will build on skills learnt in Year 7 and rotate through a range of DT specialisms during the year.

Subject	Topics
Food technology	This scheme of work has been developed to enable pupils to deepen their knowledge and understanding of the range of skills developed during Year 7. Pupils will develop and demonstrate a range of food skills, increasing in complexity and accuracy, to create and make recipes and dishes for a wide range of people, safely and hygienically, and to apply their knowledge of nutrition and food provenance. In addition, they will consider the factors that affect food choice, food availability and food waste, evaluate and test their ideas and the work of others.
Textiles	Students build on knowledge and practical skills learnt in textiles in Year 7. Areas of study are based around : Health and safety Sustainable textiles Sublimation printing using transfer dyes and a heat press Construction using a sewing machine Digital design presentation using Photoshop Design and make project based on the theme 'environments'
DT	Students will be working on a group project based around sustainable architecture. They will understand how to reformulate design problems and develop design specifications that include a wider range of requirements such as environmental, aesthetic, ergonomic and anthropometric. Students will develop designing

	<p>techniques with freehand sketches and use of CAD and realise their designs through 3D modelling.</p> <p>They will build on practical skills and theory knowledge developed in year 7 and consider the physical properties of materials and the different ways of joining them. A key area of theory focus will be on different types of structures and students will work to utilise this knowledge in their design outcome to make a functioning solution.</p>
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