

# What will my Year 10 child learn this term?



## A summary of learning for the Autumn Term 2023

### Art

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Welcome to GCSE art, craft and design. It's important that all pupils fully understand that all work created in lessons will count towards their gcse grade at the of year 11. This term pupils will be exploring the theme 'Me myself and my world' .We will research the work by artist Peter Blake and Greyson Perry. Both artists produce artwork around the theme of identity and how they feel in the world around them. by using a range of materials like - pencil,pen, collage and paint the pupils will produce a self portrait that shows their understanding of the named two artists. Pupils will also be importing their drawing and painting skills by working with the formal limits such as line, shape, form, texture and pattern.

### BTEC Digital Information Technology

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Pupils begin developing their theory and knowledge of user interfaces in preparation for the practice of NEA briefs where they will have to create a functional UI of their own to meet a specific client need.

### Business

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Pupils will be covering topic 1.1 - 'Enterprise and Entrepreneurship' where they are introduced to the dynamic nature of business in relation to how and why business ideas come about. They also explore the impact of risk and reward on business activity and the role of entrepreneurship.

### Computer Science

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Pupils will be covering the basics of Python Programming, re-capping what they have learnt in Year 8 and 9 while bringing in some more complex functions. Alongside this pupils will begin to cover the different types of hardware computers use and their different purposes.

### Creative iMedia

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Pupils begin developing their theory and knowledge of websites in preparation for the practice of NEA briefs where they will have to create a functional website of their own to meet a specific client need.

### Design & Technology

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Pupils studying GCSE D&T will begin developing both theory knowledge and practical skills to encourage independent learning as the course progresses. They will begin exploring the material areas of timbers and polymers, as well practising drawing and design communication skills. Regular retrieval homework quizzes will

be used to gauge pupils theory knowledge, as well as end of unit assessment papers, allowing pupils to build up exam question confidence.

## Drama

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Year 10 students will learn about three key theatre practitioners: Frantic Assembly, Bertolt Brecht and Steven Berkoff. They will practically explore how these practitioners create theatre and will create a range of short performances utilising those techniques, which will prepare them for their Component 1: Devising. They will also practically explore the set text *Noughts and Crosses* and link this to an understanding of the Component 3 written examination.

## Engineering Design

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Following an introduction to the Engineering Design course we will start learning about different Design Strategies that students need to learn for the R038 exam element of the course. Students will then start working on their first coursework unit, R039 Design communication. Information about the R039 tasks will be sent home along with coursework guidelines for students to discuss with parents/carers at home prior to starting the coursework early October 2023. The Engineering Design course consists of two coursework units, R039 and R040 which are worth 60% of the overall course grade and an exam unit R038 which is worth the final 40% of the overall grade. Students will complete coursework unit R039 by May 2024 and start coursework unit R040 in June 2024. In year 11 the exam unit R038 is expected to be sat in May 2025.

## English

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Pupils begin the year by studying Charles Dickens' 'A Christmas Carol' for two lessons a week. Pupils will explore and analyse the characters and themes in depth and detail. Furthermore, pupils will explore the author's intentions and how the story links contextually to society in the Victorian period. For two lessons a week, pupils will be introduced to 'GCSE Language Paper 1'. Pupils will practise and develop the skills required to answer the five questions on Language Paper 1. Finally, students will also explore and analyse 'Unseen Poems' for one lesson a week.

## Food Preparation and Nutrition

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This Term in GCSE Food Preparation and Nutrition, Pupils will develop their knowledge of Macronutrients. Pupils will have 5 lessons of Food each fortnight. They will learn about Protein, Fats and Carbs in detail, including the benefits of eating these foods and the risk of excess and deficiency. In addition, they will develop practical skills, cooking dishes that are rich in Macronutrients to further develop their understanding. You can support your child with their learning by checking their planner and/or Googleclassroom for cooking dates and ingredient requests. It's going to be an excellent term!

## Geography

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As pupils begin their GCSE Geography course (Edexcel A), they will explore a range of topics which are connected to their three main areas of study; The Physical Environment; The Human Environment; and Geographical investigations including fieldwork and UK Challenges. Pupils will begin the year by focusing on Component 1 of the Geography course, the Physical Environment, investigating weather hazards and the challenges of climate change faced by the world today. Case studies of Hurricane Sandy in the USA and Typhoon Haiyan in the Philippines will help pupils understand the impact of extreme weather in developed and developing countries, with droughts in the USA and Namibia being used as a comparison of impact and responses to climate change.

## Health & Social Care

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Pupils will begin RO33 - Supporting individuals with Life Events by look at the key milestones of growth. They will focus specifically on the age group 11-18 years old. Pupils will be asked to interview someone they know about that time in their life and compare their milestones to social norms. This piece of coursework will make up for 30% of their overall grade.

## History

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Throughout the Autumn Term of Y10, pupils continue with the first of their four GCSE History (Edexcel) topics. During the summer term of Y9, pupils were introduced to the USA in 1830 - a young country built on Christian ideals, individualism and the American dream, which was intolerant of the way of life of the Indigenous people who had lived on the American lands for thousands of years. Pupils will continue to examine the process and impact of westward expansion of the developing USA from 1830 to 1895. The unfolding narrative of the American migration west includes the varying factors involved in prompting many American citizens, and newly arrived migrants from lands further afield, to risk the dangerous journey along the trails to establish new settlements. Pupils investigate the challenges faced by ordinary people in the 'Wild West', and will consider the destructive impact the American conquest of the west had on the Indigenous people and their way of life.

## Maths

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Pupils will be continuing to expand their skills and understanding in Maths through the next 2 units of their GCSE course. Unit 1 will cover Ratio and Proportion where pupils will learn to apply ratio to real contexts and problems and solve problems involving direct and inverse proportion, including graphical and algebraic representations. Unit 2 will teach pupils to represent data statistically and compare data and various ways including through averages.

## MFL

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**GCSE French & Spanish:** Pupils will start their GCSE journey with the topic of self, family and friends. Within this topic, pupils will explore a range of language that describes relationships, descriptions and family members. As we study these in-depth, pupils have the opportunity to practise new grammar and also consolidate tenses they have seen before in a new context. Pupils will acquire skills through listening, reading, speaking and writing as they go through this unit by participating in a variety of activities. Pupils will create answers to key questions which will provide them with teacher feedback on their progress within the unit of work. After the Autumn half term, pupils will study the topic of free time and will learn about hobbies and healthy and unhealthy lifestyles as well as using the future tense to talk about future plans. Throughout the term pupils will become familiar with GCSE style tasks including, describing a photo, translation work and completing 40 -90 word written tasks.

## Music

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In Term 1, pupils learn key knowledge for Area of Study 2: Popular Music. They are introduced to the study pieces for this unit: Prologue/Little Shop of Horrors, Mushnik and Son, and Feed Me, from the off-Broadway version of the musical Little Shop of Horrors. Pupils also study common musical characteristics of Rock Music of the 1960, and Film and Gaming music - all key topics within Area of Study 2. In addition to this, pupils learn about and apply compositional techniques, in preparation for starting their composition coursework at the start of Y11. In Term 2, pupils focus on Area of Study 1: The Western Classical Tradition 1650 - 1910. They are introduced to the mandatory study piece for this unit: Rondo from the Clarinet Concerto in A Major by Mozart. In Term 3, pupils will complete their work on Area of Study 1, and will finish the year with an introduction to Area of Study 4: The Western Classical Tradition Since 1910, which will be studied in more depth in Y11.

## GCSE PE

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Pupils will begin their work on Paper 1 Material. This is focussed on the body systems, including key locations of bones and muscles, alongside the components and functions of the cardiovascular and respiratory systems. Alongside their theory work, pupils will also begin to develop their practical skills in a range of sports.

## Personal Development (PSHE)

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In the autumn term, students will be studying two PSHE units. The first is risk and safety, where students will focus primarily on online safety. This includes media literacy, boundaries online and offline, understanding and managing their digital footprint for their own personal safety and for the workplace. Students will also revisit their learning on the law around drugs and alcohol. In the second half of the term, students will study a unit on health and wellbeing. This includes the personal consequences of addiction in all forms, including alcohol and gambling. Students will also look at mental health connected to self-harm.

## Photography

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Welcome to GCSE photography. It's important that all pupils fully understand that all work created in lessons will count towards their GCSE grade at the end of year 11. All work is completed on the googleclassroom which they have access to at home. However, if work isn't completed in lessons then it's the pupil's responsibility to complete the work before the next lesson. We also use photopodia which is a free photo editing software available to all. Project 1 is an introduction to photography looking at the history of cameras and how different outcomes are achieved. This may be an area they wish to explore as part of an after school session. We have a large stock of vintage cameras for the pupils to use. Project 2 'The devil is in the details' - here pupils work with the DSLR cameras to set up photoshoots of models they have made. This responds to the photographer's work, 'Peter Defty.' Pupils will be working in pairs to help them develop communication skills and problem solving.

## † Religious Studies

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In Y10 GCSE lessons, pupils begin by focusing on the AQA, Theme A: Relationships and Family unit. Pupils explore religious attitudes towards sexuality, contraception and marriage. They focus on the role of marriage within a Christian family and the role of everyone within the family unit. Pupils explore and discuss different gender roles within religion as well as same-sex marriage. The pupils end the unit by examining the views of divorce and remarriage within Christianity. Then pupils move on to have a look at Christian beliefs including the story of creation, Jesus birth, death and resurrection. In the final part of the unit, pupils focus on key Christian beliefs about the afterlife including Heaven, Hell and Purgatory.

## Science

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In biology we will be covering the topic of organisation and will cover the following areas:

- The human digestive system
  - Label the structure of the digestive system.
  - Describe the function of each organ of the digestive system.
  - Define the function of an enzyme.
  - Describe the lock and key theory.
  - Name the three types of digestive enzyme, their substrates and products.
  - Describe and explain the role bile plays in digestion.
  - Describe how we test for different biological molecules in food.

- Describe how we can investigate the effect of temperature and pH on the rate of enzyme activity.
- Active transport
  - Define active transport.
  - Describe how active transport is used for the absorption of glucose in the small intestine.
  - Contrast active transport to diffusion.

In chemistry we will be covering the topic of structure and bonding and will cover the following areas:

- Identify the three states of matter and their state symbols.
- Identify changes in states of matter.
- Describe the arrangement in the 3 states of matter.
- Describe how the states change.
- Describe limitations of the simple states model.
- Explain the different temperatures at which changes of state occur in terms of energy transfers
- Skill predict states of substances at given temperatures.
- Skill recognise that atoms themselves do not have the bulk properties of materials.
- Identify the types of bonding between different types of elements
- Describe how each type of bonding occurs, in terms of sharing/transferring.
- Identify how metallic bonding occurs.
- Identify the properties of a metal.
- Identify what an alloy is.
- Describe how metallic bonding occurs.
- Describe how an alloy and a pure metal are different.
- Draw a diagram to illustrate metallic bonding and an alloy.
- Explain the properties of metals, linking them to their structure and bonding.
- Explain why pure metals have different properties to alloys.

In physics we will be covering the topic of electricity and will cover the following areas:

- Ohms law and potential divider recap.
- Threshold concepts
- Students should be able to:
  - calculate the currents, potential differences and resistances in dc series circuits (Ohm's Law –simple circuits)
  - recognise that the current through an ohmic conductor (at a constant temperature) is directly proportional to the potential difference across the resistor(this means that the resistance remains constant as the current changes)
- Required Practical 3.
- Students should be able to
  - Use circuit diagrams to set up and check appropriate circuits to investigate the factors affecting the resistance of electrical circuits. This should include:
    - the length of a wire at constant temperature
    - Combinations of resistors in series and parallel.
- Resistors and their uses/behaviours.
- Threshold concepts
- Students should be able to:
  - Know that the resistance of components such as lamps, diodes, thermistors and LDRs is not constant; it changes with the current through the component.
  - The resistance of a filament lamp increases as the temperature of the filament increases.

- The current through a diode flows in one direction only. The diode has a very high resistance in the reverse direction.
- The applications of thermistors in circuits eg a thermostat
- The application of LDRs in circuits eg switching lights on when it gets dark.
- use graphs to explore whether circuit elements are linear or non-linear and relate the curves produced to their function and properties

## Sports Studies

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Pupils will be starting their Performance and Leadership unit. During Term 1 pupils will be analysing their strengths and weaknesses in a chosen sport and then will design a training plan to improve their weaknesses.

## Sociology

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Year 10 are introduced to essential vocabulary which allows pupils to begin effectively analysing society. By understanding concepts such as culture and identity and processes such as socialisation, pupils will begin using their sociological imagination, which they will be able to apply to everyday life. The topic of 'Families' is then focused upon because its starting point is primary socialisation, which is one of the most important key concepts. It allows pupils to critically think about family life and compare to other families in different societies and how these have changed over time.

## Textiles

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In GCSE Art & Design: Textiles, pupils will be beginning their first coursework portfolio. They will be exploring the starting point of 'Architecture', analysing the work of artists before developing their own creative drawings, gathering relevant photographs, and using these to begin developing their own ideas. Pupils will be introduced to a range of practical textile techniques to build up a range of skills and encourage independent choice as the course progresses.