

# **Year 10 Spring Term 2 (February – April 2024)**

#### **Curriculum Overview**



#### Language

#### Reading non-fiction (Paper 2)

- Understand and summarise a range of 20th- and 21st-century non-fiction texts (including literary non-fiction).
- Develop skills to analyse, evaluate and compare non-fiction extracts.

#### **English**

#### Literature

#### Refugee Boy: The Play by Lemn Sissay (Paper 1)

- Develop skills to analyse how the language, form, structure and context of a modern play can create meanings and effects.
- Develop skills to maintain a critical style and informed personal response.

## Mathematics

# Foundation Mathematics Curriculum Geometry:

- Use Scales & Scale Drawings
- Measure & Draw Angles Bearings and Scales
- Area of Shapes Rectangles, Triangles, Trapeziums and Compound
- Area & Circumference of a Circle
- Finding a, b & c Using Pythagoras
- Surface Area Cube, Cuboid & Prism
- Volume Cube, Cuboid & Prism
- Angles Parallel Lines & Regular Shapes (Interior & Exterior)
- Constructing Triangles, Perpendicular and Angle Bisectors

#### Higher Mathematics Curriculum

#### **Geometry:**

- Draw & measure with scales and bearings
- Area including triangles, trapeziums, compound shapes
- Recap Pythagoras including 3D
- Surface Area & volume of cubes, cuboids & Prisms
- Surface Area & volume of a sphere
- Surface Area & volume of pyramids
- Angles on Parallel Lines and Regular Shapes
- Find Missing Lengths and Angles with SOHCAHTOA

#### Respiration

- What is respiration?
- Students learn about aerobic and anaerobic respiration in humans, the bodies response to exercise and anaerobic respiration in plant and yeast cells.
- Students also study the metabolism.

#### The nervous system

• What is the nervous system? Students learn about the structure and function of the nervous system including reflex actions.

# Combined Science

#### **Energy changes**

 How do reactions affect temperature? Students learn about exothermic and endothermic reactions

#### Molecules and matter

• Why do some materials float? Students learn about the structure of materials, density, pressure and how the energy of particles cause changes of state

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Core Physical Education

#### Self-Reflection

For students to understand what is meant by the term 'self-reflection and to be able to apply this knowledge to PA, Sport and further aspects of life.

#### Self-Care

Students will understand what is meant by the term 'self-care' and to be able to apply this knowledge to PA, Sport and further aspects of life.









#### **Self-Appraisal**

Students will gain an understanding of the term 'self-appraisal and will to be able to apply this knowledge to PA, Sport and further aspects of life.

#### **Self-Improvement**

Students will understand what is meant by the term 'self-improvement' and to be able to apply this knowledge to PA, Sport and further aspects of life.

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#### Relationships

Pupils should know:

- The concepts of, and laws relating to, sexual consent, sexual exploitation, abuse, grooming, coercion, harassment, rape, domestic abuse, forced marriage, honour-based violence and FGM, and how these can affect current and future relationships.
- The facts around pregnancy including miscarriage.
- That there are choices in relation to pregnancy (with medically and legally accurate, impartial information on all options, including keeping the baby, adoption, abortion and where to get further help).
- That there are a range of strategies for identifying and managing sexual pressure, including understanding peer pressure, resisting pressure, and not pressurising others.
- The characteristics of positive and healthy friendships including trust, respect, honesty, kindness, generosity, boundaries, privacy, consent.
- That there are different types of committed, stable relationships and how these relationships might contribute to human happiness and their importance for bringing up children.
- What marriage is, including their legal status e.g., that marriage carries legal rights and
  protections not available to couples who are cohabiting or who have married, for example, in an
  unregistered religious ceremony.
- Why marriage is an important relationship choice for many couples and why it must be freely entered.
- The roles and responsibilities of parents with respect to raising of children, including the characteristics of successful parenting.
- How to: determine whether other children, adults or sources of information are trustworthy: judge when a family, friend, intimate or other relationship is unsafe (and to recognise this in others' relationships); and, how to seek help or advice, including reporting concerns about others, if needed

History

**ARRK** 

Lessons

Core Values

**Aspirational** 

Resilient

Respectful

Kind

#### Crime and Punishment Through Time 1000-Present

- Saxon England, The Norman Conquest, Trial by Ordeal, Gunpowder Plot, Witchcraft, Transportation, Robert Peel, Pentonville Prison, Conscientious Objectors, Abolition of Capital Punishment, Jack the Ripper, Whitechapel in the 1880s.
- Describe the changes in punishments over time
- Explain how authorities deal with crime and punishments over time
- Analyse how attitudes towards crime and punishment have changed over time

Geography

#### **Changing Economic World**

- Global variations in economic development and quality of life.
- Various strategies exist for reducing the global development gap.
- An example of how the growth in tourism in an LIC or NEE helps to reduce the development gap.
- Major changes in the economy of the UK have affected and will continue to affect, employment patterns and regional growth

#### Students will know:

- How global economies are different.
- What factors affect global economies.
- The methods to effectively manage global economies.
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#### Paper 1 Section 2: Marriage & the Family

- How important is marriage to Christians and non-religious people?
- Divorce reasons why some marriages (religious & non-religious) end in divorce & Christian
- Family Life types of family in the UK, how some Christians raise their children.
- Attitudes towards sex Christian views on sex before marriage, how this view is interpreted by more liberal Christians, non-religious views.
- Contraception types of contraception (including artificial and natural, who may use them), their effectivity, and Christian views.
- Homosexuality laws in the UK, how attitudes have changed over time, Christian views.
- How the Parish supports families, the reasons for doing so.
- Equality the difference between prejudice & discrimination, the different Christian views about gender equality.
- Christian Attitudes to Gender Roles how roles & views have changed over time.

### French

**Philosophy** and Ethics

#### 10.6 Future plans after school

- Students should be to discuss what jobs they would like to do in the future using the conditional and simple future tense.
- Students should be able to give opinions and reasons on a range of jobs in French.
- Students should be able to use the imperfect and perfect tense to be able to discuss previous jobs and work experience.

#### 10.7 Mobile Technology

- Discussion of the advantages and disadvantages of social media.
- Use of dual verb opinion phrases to discuss opinions on mobile technology.
- Use of the perfect and imperfect tense to discuss previous mobile habits.

### **Spanish**

#### 10.6 Future plans after school

- Students should be to discuss what jobs they would like to do in the future using the conditional and simple future tense.
- Students should be able to give opinions and reasons on a range of jobs in Spanish.
- Students should be able to use the imperfect and perfect tense to be able to discuss previous jobs and work experience.

#### 10.7 Mobile Technology

- Discussion of the advantages and disadvantages of social media.
- Use of dual verb opinion phrases to discuss opinions on mobile technology.
- Use of the perfect and imperfect tense to discuss previous mobile habits.

#### Experimentation

Experimentation in the following specialisms:

- Drawing
- Modelling
- Resilient materials
- Resistant materials
- Sculpture
- Digital
- Photography

**3D Product** Design

> Students will be exploring ways to exploit the potential of materials through a variety of relevant techniques and processes including print, sculpture, digital, collage and painting and drawing. Students will be consolidating their knowledge by analysing their work through verbal and written means.

Throughout Y10 students will learn about new artists/designers and develop their knowledge of the meaning behind many works of art









#### R038 - Principles of Engineering Design.

- This unit provides the opportunity for students to develop their understanding of the requirements of design briefs and design specifications for the development of new products.
- Topics/Skills covered in the R038 unit include:
- The reasons for the use of modelling, virtual and physical modelling of design ideas.

  Manufacture or modification of models and prototypes. Including the comparison of the model and prototype against the requirements of the design brief and specification
- Types of criteria in and engineering design specification. Including the difference between needs and wants, the difference between quantitative data and qualitative data and the reasons for the product criteria (ACCESS FM).

#### **Engineering**

#### **R039 – Communicating Designs**

- This unit develops techniques in generation, concept development and the communication of design ideas using hand rendering and computer-based presentation techniques including computer aided design software.
- Production of an assembly drawing for a design proposal with an exploded view and a sectional view. Including isometric projection, parts list of up to 4 parts, number referencing, assembly instructions
- Production of a 3D CAD model of a design proposal to include compound 3D shapes, rendering and a complex shape which includes dimensions, lines, and angles.
- Production of 3D CAD assemblies of components including multiple components, mate tools, constraints, and animation

#### **Major Project:**

Term 2: Experimentation with materials and techniques.

#### Experimentation

- Experimentation in the following specialisms:
- Mark Making
- Fabric Construction
- Dyeing and Printing
- Embellishment
- Fabric Manipulation
- Pattern Making
- Presentation

Students will be exploring ways to exploit the potential of materials through a variety of relevant textile techniques and processes using a variety of textiles media.

Students will be consolidating their knowledge by analysing their work through verbal and written means. Throughout Y10 students will learn about new textile artists and designers and develop their knowledge of the meaning behind many works of textile art and design

**Food Science** 

This unit will enable students to develop an understanding of the different scientific processes that are involved in food production and preparation.

# Food

Technology

**Textiles** 

Topics and Skills Covered:

- Why food is cooked and the different methods of heat transfer.
- Students will learn a range of preparation and cooking methods, alongside the importance of time, to achieve the desired characteristics in practicals.
- Students will study the functional and chemical properties of food, including denaturation, coagulation, gluten formation, foam formation, gelatinisation, dextrinization, caramelisation.
- Students will understand the use and importance of chemical and mechanical raising agents.
- Students will gain exam question practise









#### **Experimentation with materials and techniques**

- Experimentation in the following specialisms:
- Drawing
- **Painting**
- **Printing**
- Collage
- Sculpture
- Digital
- Photography

Students will be exploring ways to exploit the potential of materials through a variety of relevant techniques and processes including print, sculpture, digital, collage and painting and drawing. Students will be consolidating their knowledge by analysing their work through verbal and written means. Throughout Y10 students will learn about new artists and develop their knowledge of the meaning behind many works of art

#### **Physical Education**

Art

#### **GCSE PE**

- Health fitness and well being
- Balanced diet
- Types of feedback

#### **Practical Assessment**

- Handball
- Netball
- Table tennis

End of topic test (/60). Both units assessed interleaving all units. - Pop/vocal tests on key AO1 content OCR GCSE PE Summary exam questions and revision activities

# **Health and**

**Social Care** 

#### Learning outcome A: Understand human growth and development across life stages and the factors that affect it

#### Coursework

Pearson sets the assignments for the assessment of this component. The assignment for this component consists of four tasks.

- In response to Task 1, learners will demonstrate their knowledge and understanding of the PIES growth and development through the life stages.
- In response to Task 2, learners will demonstrate their knowledge and understanding of the impact of different factors on PIES growth and development through the life stages.
- In response to Task 3a, learners will demonstrate their knowledge and understanding of the impact of life events on PIES growth and development.
- In response to Task 3b, learners will demonstrate their knowledge and understanding of how individuals adapt to life events.









#### Unit 4

#### **Operations Management**

This content area focuses on the various factors that influence the operations management decisions a business makes. Pupils will learn about:

**Outsourcing tasks to another business** 

Lean production methods

#### **Business**

#### Unit 5

#### **Business Growth**

This content area focuses on business and enterprise growth that an enterprise will need to understand if it wants to continue to grow in the future. Pupils will learn about:

#### Internal & External growth

**Economies and diseconomies of scale** 

The challenge of growth

## Information Technology

### How can we analyse data using a spreadsheet?

#### Learning Aim A:

Data v Information, data formats, preparing data for processing, data collection methods, data quality, data privacy.

#### **Learning Aim B:**

Importing data, formatting of data, using formulas, using functions, absolute cell referencing, sorting information, decision making functions







