Student Learning Journey

Subject: Art Year 9 Everyday Objects

Previously you have learnt

Throughout your time in year 7+8 you have worked in a range of media including wet paint, you have had the opportunity to explore some 3D sculptural media (paper and card sculptures). You have explored a wide range of architectural artists (Stephen Wiltshire, Gaudi), pop artists (Hockney, Warhol, Oldenburg) as well as culturally diverse portrait artists (Bruno Del Zou, Bisa Butler, Louie Jover, Escher) are to name a few.

In terms 2 + 3 you explored new skills really working on the formal elements in art and now we will focus on continuing to develop these skills based on the theme of everyday objects working with a focus on 3D.

In this ~~unit you will learn~~

How to use a wider range of media based on the theme of everyday objects. This term you will work in 3D media you have not used before like clay and wire.

You will explore a range of artists who work within the theme of everyday objects to create 3D outcomes and you will learn how to analyse these artist's to a GCSE standard. You will start to have choices in the areas for interest and you will start to explore areas of art in detail to a GCSE standard.

Key Vocabulary and Terminology

Tier 2: media, refine, artist analysis primary observation, mixed media, colour

Tier 3: clay, sculpture, 3D, relief

Further Learning

Tate modern: Everyday objects

BBC Bitesize (GCSE): Art and Design

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	**Courage**	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Art Year 9 Masks and World Cultures

Previously you have learnt

Throughout your time in year 7+8 you have worked in a range of media including wet paint, you have had the opportunity to explore some 3D sculptural media (paper and card sculptures). You have explored a wide range of architectural artists (Stephen Whiltshire, Gaudi), pop artists (Hockney, Warhol, Oldenburg) as well as culturally diverse portrait artists (Bruno Del Zou, Bisa Butler, Louie Jover, Escher) are to name a few.

In this unit you will learn

How to use a wider range of media based on the theme of masks. You will explore a wide range of cultures from around the world through masks, you will explore the meaning, beliefs and rituals that go alongside the masks.

You will then design your own mask based on your own beliefs, heritage and meanings personal to you through a range of mixed media to create your own clay mask design.

Key Vocabulary and Terminology

Tier 2: media, primary observation, colour, refine, culture,

Tier 3: tonal value, mixed media, clay, sculpture, ritual

Further Learning

Tate modern: Masks and Cultures

BBC Bitesize (GCSE): Art and Design

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Business Year 9 GCSE Expansion and Organisational Structures

Previously you have learnt

About the different types of internal and external stakeholders and how stakeholder decisions affect a business. You will have also discussed conflict between stakeholders and resolutions. You also learnt the importance of location and the factors that affect location. You have learnt how to work through a business plan and the purpose of it.

In this unit you will learn

Expansion: You will learn about the methods of business expansion, the benefits and drawbacks of expansion, either internally or externally. You will also learn about the economies and diseconomies of scale.
Organisational structures: You will learn why businesses have organisational structures, the different roles and responsibilities within an organisation and the different structures. You will also learn how organisational structures affect the way a business is managed and communication within it.

Key Vocabulary and Terminology

Tier 2: List, research, search, identify, define, describe, analyse, Profit, Not for Profit.

Tier 3: Growth, franchise, franchisor, internal, external, e commerce, outsourcing, merger, takeover, economies, diseconomies, organisational structures, authority, organisational chart, hierarchy, chain of command, delayering, delegation, centralisation, decentralisation

Further Learning

Benefits and drawbacks of expansion - Expanding a business

Hierarchical and flat organisational structures - Organisational structures

Organisation: Growing a Business

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	**Responsibility**	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	**Verbal Confidence**	Social Intelligence	Citizenship

Excellence | Aspiration | Achievement | Inspiration | Community

Student Learning Journey

Subject: Computer Science Year 9 Searching and Sorting

Previously you have learnt

About algorithms and how they can be used to solve problems by thinking and writing down the steps that will form the solution.

In this unit you will learn

About famous algorithms that programmers use to search for and sort items in a list. The searching algorithms you will learn are linear search and binary search. The sorting algorithms are bubble sort, insertion sort and merge sort.

Key Vocabulary and Terminology

Tier 2: complete, explain, identify, label, solve, write

Tier 3: search, sort, bubble sort, insertion sort, merge sort, binary search, linear search, complexity

Further Learning

GCSE (J277) OCR: 2.1 Algorithms (Videos 9-13)

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Dance Year 9 Performance Term 4

Previously you have learnt

In the previous unit of work, students learned the basic principles of choreography needed for BTEC dance. Students have explored various choreographic devices through workshops, exploring various choreographers' works, and through creating their own solo dances based on a given stimulus. Students have continued to develop their technical skills in dance, participating in dance technique lessons alongside theory lessons exploring the constituent features in dance, and movement analysis.

In this unit you will learn

The skills necessary for an effective performance. Students will learn repertoire from 'Some Like it Hip Hop'- ZooNation Dance Company, and develop their performance skills through rehearsals. Students have previous knowledge of the physical, expressive, and technical skills in dance, through exploring a variety of dance styles and techniques. Students will take a closer look at physical, expressive, and mental skills throughout the performance and rehearsal process, and will be assessed on their final group performance of the repertoire learned.

Key Vocabulary and Terminology

Tier 2: Performance, rehearsal, evaluate, collaborate.

Tier 3: Physical skills, expressive skills, technical skills, mental skills.

Further Learning

Dance On Demand REP | Session 4 | Some Like It Hip Hop with Carrie-Anne - YouTube

ZooNation Dance Company - Some Like It Hip Hop - YouTube

9781446939628_BTEC_L1L2_AWD_PA_SPEC.pdf (pearson.com)

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Drama Year 9 Term Four: Exploring a Script (Blood Brothers)

Previously you have learnt

How to explore a range of drama skills that have become your tool kit for devising theatre. You have explored Warden X as a stimulus and developed your own theatre. You have been introduced to the script of *Blood Brothers* by Willy Russell.

In this unit you will learn

How to practically explore a Script with a focus on Themes, Characters and Performance Ideas. You will have an opportunity to do exam style questions about the text as well as rehearse sections for a practical style examination.

You will undertake a mock-style assessment that mirrors the GCSE Year 10 pathway, at the end of term 4.

Key Vocabulary and Terminology

Tier 2: Space, Voice, Eye Contact, Body Language, Movement, Facial Expression, Gesture

Tier 3: Still Images, Thought tracking, Giving witness, Hot seating, Naturalism and non-naturalism, Role play, Cross cutting

Further Learning

Establishing character and plot - Performing a script - Edexcel - GCSE Drama Revision - Edexcel - BBC Bitesize

Preparing for the written exam - How to answer set text exam questions - Edexcel - GCSE Drama Revision - Edexcel - BBC Bitesize

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Hospitality and Catering Year 9 The Hospitality and Catering Industry

Previously you have learnt

Last term you learnt about the working in the Hospitality and catering industry. You gain knowledge and understanding of employment roles and responsibilities within the industry. You have gained awareness of the operations of the front and back of house and the different job roles found in each. The personal attributes and qualification needed to work in H&C provision were also explored and you have continued to develop your cooking skills by making a variety of pastry products.

In this unit you will learn

In term 4 you will be learning about nutrition. Studying the two main groups of nutrients: macronutrients and micronutrients. You will look closely at the food groups and how each life-stage will need different amount of nutrients to ensure a healthy life style. You also need to know the diets of different religious groups. You will also explore the different cooking methods and their impact on nutritional value in both written and practical settings.

Key Vocabulary and Terminology

Tier 2: Match, Explain, Describe, identify, label, state, Compare, Discuss

Tier 3: Macronutrients, Micronutrients and Life stages

Further Learning

Textbook: Level 1/ 2 Vocational Award Hospitality and Catering; Course Companion Author Alison Palmer and Knowledge Organisers.

Videos: The function of nutrition

BBC Bitesize: Hospitality and Catering

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	**Team Work**	**Leadership**
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Design and Technology (RM) Year 9 Metal Working Skills

Previously you have learnt

In Key Stage 3 you will have learnt how to mark out, cut and finish materials and basic information about working with and joining timber safely. You will have worked with simple hand tools and used CAD and CAM to produce simple products. So far within year 9 you have learnt practical skills linked to cutting, shaping, forming and joining woods and plastics.

In this unit you will learn

During this unit you will learn how to use hard tools to cut, finish, join and form metals. You will learn how to use metal working tools and equipment safely including tin snips, metal files, hack saws, emery cloth, rivets and soldering. This will accompany learning the theory of metals.

Key Vocabulary and Terminology

Tier 2: apply, follow, marking out, prepare, finish

Tier 3: Ferrous, non-ferrous, alloy, tolerance, anvil

Further Learning

BBC Bitesize: Metal-based materials

Technology Student: Working with Metals

Supporting textbook: CGP Design and Technology GCSE textbook

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	**Leadership**
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Design and Technology (RM) Year 9 Working with Metals

Previously you have learnt

In Key Stage 3 you will have learnt how to mark out, cut and finish materials and basic information about working with and joining timber safely. You will have worked with simple hand tools and used CAD and CAM to produce simple products. So far within year 9 you have learnt practical skills linked to cutting, shaping, forming and joining woods and plastics.

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Key Vocabulary and Terminology

Tier 2: apply, follow, marking out, prepare, finish

Tier 3: ferrous, non-ferrous, alloy, tolerance, anvil

Further Learning

BBC Bitesize: Metal-based materials

Technology Student: Working with Metals

Supporting textbook: CGP Design and Technology GCSE textbook

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	**Leadership**
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Textiles Year 9 Introduction to pattern adaption

Previously you have learnt

Last term you learnt how to manufacture a simple garment, developing your accuracy and technical understanding in areas including preparing fabric, cutting, joining and finishing. You learn how to use pattern pieces and read pattern markings as well as create your own layplans.

In this unit you will learn

In this unit you will learn how to adapt block patterns to suit your own creative design intentions. You will learn how to re-position darts, add or remove fullness, shorten or lengthen and create seam lines as well as create additional pattern pieces for features such as collars and pockets. You will also learn how to complete technical drawings to support your ability to visually communicate your ideas.

Key Vocabulary and Terminology

Tier 2: accuracy, adapt, refine, develop, test

Tier 3: darts, seam allowance, fullness, block, pattern piece, toile, draping

Further Learning

Tilly and the buttons Video tutorials

The Fold Line Pattern Blocks

Christian Dior Draping

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Excellence | Aspiration | Achievement | Inspiration | Community

Student Learning Journey

Subject: English, Year 9, Voices

Previously you have learnt

So far, you have explored many different voices throughout literature including the voice of the oppressed in The Tempest, the voice of the underclass in Oliver Twist and the complex voice of female characters in Macbeth and A Midsummer Night's Dream.

In this unit you will learn

In this unit, you will explore different voices through non-fiction memoirs and fiction stories. You will begin by reading The Art of Being Normal where you will discuss the idea of gender roles in modern society. You will then study the non-fiction memoirs and analyse how language is used to showcase the voice of the oppressed. Finally, you will study famous literature such as Anita and Me and The Handmaid's Tale to explore voice within fiction writing. Alongside this, you will continue to develop your own voice and writing craft by practising persuasive writing by using the CDAFORREST methods.

Key Vocabulary and Terminology

Tier 2: Universal experience, culpability, deprived, margins, vulnerable, affluent, systematically, advocate, heritage, culture, suppressed, radical and injustice.

Tier 3: Memoir, non-fiction, fiction, metaphor, utopia, dystopia, chiasmus, fact, opinion, emotive language and anecdote.

Further Learning

Books in the Life of- Kerry Hudson

Lemn Sissay speaks in Parliament

A Conversation with Magaret Atwood

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Film Studies – Year 9 – Representation – British Independent Film

Previously you have learnt

Over the course you have spent time learning and applying film studies terminology and language, film theories (such as Propp, Todorov, Strauss and Barthes) and how to use this terminology in analysing a film. Along with this, you have spent time analysing The Dark Knight (a US mainstream blockbuster) and explored the Hollywood film industry, franchises and the impact of these on the film industry and mainstream films.

In this unit you will learn

This unit will have you exploring the British Film Industry, the development of it and the impact of British film on the global industry. You will also explore the representation of race and gender and will focus on the critical reception of the film. You will further develop your analytical skills and how to construct an exam response. Along with this, you will consider the production and distribution of the film and how this affected spectator responses to the film. Finally, you will learn and apply theories of representation, including Dyer, Hall and Alvarado.

Key Vocabulary and Terminology

Tier 2: Oppression, patriarchal, privilege, context, affluent, exposition, representation

Tier 3: antithesis, trope, racial inequality, prejudice, marginalised, countertype

Further Learning

Representation of race in the media

Race theory

BFI – The UK Film Industry

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Geography – Year 9, Contemporary Issues

Previously you have learnt

About different **extreme environments** and how the present both **opportunities** for and **challenges** to human development. You have developed the ability to evaluate whether or not an environment should be **developed for economic gain** or be left alone. In addition, throughout key stage 3 you have learnt about key physical and human processes, such as **weather and climate** and **migration,** including **push and pull factors**.

In this unit you will learn

To analyse the world's population in reference to the concept of '**carrying capacity'** – are there enough resources on the planet to sustain an ever-increasing global population. You will use this topic to investigate **Climate Change** in depth, exploring causes and the impacts of the anticipated threats posed by climate change.
You will also develop a general understanding for the various issues around the world, including the impact of **migration on donor countries, corruption and war.**

Key Vocabulary and Terminology

Tier 2:

Development, profit, green house gas affect, sustainable

Tier 3:

Carry Capacity, Global Goals, Natural Increase, Optimum Population, Contraception, Agribusiness, United Nation, Industrialisation, Sanitation, Sustainable, Infrastructure, Sustainable Development, Cloud seeding, Corruption, Carbon capture, Eutrophication

Further Learning

Extreme environments - http://aggsgeography.weebly.com/contemporary-issue.html

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Topic Review

Case Study Summary Notes

Student Learning Journey

Subject: German Year 9 – Social Media

Previously you have learnt

In Year 8, we learnt to talk about films and television using three tenses. In year 7, we talked about hobbies, including online gaming and using technology.

In this unit you will learn

How to extend talking about film and television to talking about social media and mobile technology. We will give reasons and opinions on why we think they are useful or not and what we use technology for. We will also discuss the dangers of cyber bullying.

Key Vocabulary and Terminology

<u>Tier 2</u> reflexive verbs, future tense, using past tense, possessive adjectives

<u>Tier 3</u> Wie oft benutzt du Technologie? Was hast du letzte Woche im Internet gemacht?

Further Learning

Please look at our department Padlet under Y9

KS3 German (padlet.com)

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	Curiosity	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Health and Social Care TA4 Legislation

Previously you have learnt

About service users' rights and the benefit to service users when these rights are maintained.

In this unit you will learn

About legislation in Health and Social Care. You will learn specifically about the Human Rights Act 1998, The Data protection Act 1998, the update to this legislation GDPR 2018, the Equality Act 2010. You will learn how maintaining the service users' rights meets the requirements of these legislations.

Key Vocabulary and Terminology

Tier 2: policies, procedures, law.

Tier 3: House of Commons, House of Lords, legislation, protection, confidentiality.

Further Learning

The Equality Act 2010,

Data Protection Act 1998

The care Act 2014

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: History Year 9 The Cold War

Previously you have learnt

Genocide, what it is and examples of it, how it has occurred throughout history and the world. Your big question will be to understand how to identify and therefore stop genocides occurring in the future. We will look at genocides in Rwanda, Bosnia, Cambodia and across Nazi controlled Europe as well as explore the Apartheid in South Africa and revelations in Canada today - contemplating how and why we should remember genocide?

In this unit you will learn

To examine the events of the cold war, including ideological differences and how east and west battled politically and economically with the constant threat of nuclear. The big question is when were the tensions at their greatest? You will need to value your own historical opinion and balance with others.

Key Vocabulary and Terminology

Tier 2:

Nuclear, alliance, war, speech, leader, revolution, blockade, air lift

Tier 3:

Capitalism, communism, iron curtain, arms race, guerrilla warfare, The united nations

Further Learning

The Cold War - BBC Bitesize

The Cold War

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Digital information Year 9 Data and Testing

Previously you have learnt

About basic spreadsheet skills including storing and manipulating data. In Year 7, 8 and 9 you learnt a range of programming languages, which all require testing to ensure they work as intended.

In this unit you will learn

About where data is used, stored and format. You will learn about the key data types used in spreadsheets and in augment reality programs. You learn about the different types of testing and their effectiveness for different types of software.

Key Vocabulary and Terminology

Tier 2: data, testing, decimal, currency

Tier 3: datatype, string, integer, black box, white box, alpha, beta

Further Learning

How to use data types (stock and geographic) in Excel - YouTube

Functional Testing vs Non-Functional Testing

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	**Responsibility**	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	**Social Intelligence**	**Citizenship**

Student Learning Journey

Subject: Life Skills Year 9 Work Experience Project

Previously you have learnt

In Year 7 you have learned about the key skills that you will need for work including: speaking; listening; problem solving; creativity; leadership; team work and positive thinking. These are transferrable skills which you will be able use in future units. You learn about a range of different jobs through the Hatton News and in Year 8 you attended a STEAM day where you gained an overview of different industries, how they work and the jobs available.

In this unit you will learn

How to work with local companies/employers and get feedback on your work. It will give you the opportunity to develop your skills in the 'Core Competencies' and to give you the opportunity to develop character skills for your HBACC accreditation.

Key Vocabulary and Terminology

Tier 2: core competency, environment, strategy, allocation, virtual

Tier 3: Discuss, explain, analyse.

Further Learning

https://www.unifrog.org/

https://www.gov.uk/apply-apprenticeship

https://nationalcareers.service.gov.uk/careers-advice/how-work-experience-can-help-you

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Term 1

Student Learning Journey

Subject: Mathematics Year 9 Number Sense: KLP 1, 2, 3, 4

Previously you have learnt

How to recall multiplication facts for numbers between 1 and 12 and how to multiply and divide by 10, 100 and 1000. You will also have learnt the order of operations and how to apply basic index laws.

In this unit you will learn

How to calculate with positive and negative integers and decimals. You will learn how to calculate and solve problems involving HCF and LCM. You will learn how to round values to varying degrees of accuracy and use estimation to support calculations.

Key Vocabulary and Terminology

Tier 2: evaluate, process, decimal, figure, numeral, product, factor, multiple

Tier 3: common multiple, times table, integer, significant figure, standard form, HCF, LCM

Further Learning

Significant Figures

Dividing Decimals

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Data and Statistics: KLP 1

Previously you have learnt

How to collect and represent data using tallies. How to draw and interpret simple charts and diagrams.

In this unit you will learn

How to recognise and classify different types of data. You will learn how to collect data using tables, and how to display both discrete and continuous data in tables. You have learnt how to interpret data from different from different types of timetables and two way tables.

Key Vocabulary and Terminology

Tier 2: frequency, tally, timetable, construct, interpret

Tier 3: discrete data, continuous data, frequency table, two way table

Further Learning

Sampling Techniques

Types of Data

Two Way Tables

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Term 2

Student Learning Journey

Subject: Mathematics Year 9 Intro to Algebra: KLP 1, 2, 3, 4

Previously you have learnt

how to define and find square and cube numbers. You have also learned how to use index notation to represent square numbers, cubes numbers with index notation.

In this unit you will learn

how to represent real life situations using algebra. You will learn how to interpret and simplify algebraic expressions. You will learn how to simplify and manipulate expressions. This includes collecting like terms, multiplying terms and factorising expressions. You will learn how to simplify terms using index notation.

Key Vocabulary and Terminology

Tier 2: simplify, expand, evaluate, represent, unknown

Tier 3: term, expression, equation, formula, identify, indices, powers , like terms, square root, cube root, inverse, variable,

Further Learning

Practice Collecting Like Terms

Algebraic Terms Test Questions

Algebra Practice

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	**Team Work**	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Term 3

Student Learning Journey

Subject: Mathematics Year 9 Representing Numbers: KLP 1, 2, 3, 4

Previously you have learnt

How to perform calculations with integers, and estimate solutions of problems in real life contexts. You have also learnt how to represent fractions visually, and how to order key fractions, decimals and percentages.

In this unit you will learn

How to convert between fractions, decimals and percentages, and how to order the values by size. You will consider several different strategies, depending on the values. You will learn how to simplify fractions, how to convert between mixed numbers and improper fractions and how to apply arithmetic to different fractions. You will then perform arithmetic with percentages in real life contexts, and how to increase and decrease values using percentages.

Key Vocabulary and Terminology

Tier 2: Compare, represent, fraction, percentage, increase, decrease, appreciation, depreciation, growth, decay, VAT, interest

Tier 3: Mixed number, top heavy fraction, denominator, numerator

Further Learning

Converting Fractions Decimals and Percentages

Fractions of Numbers - Tablet Version

Percentages in Real Life

Reverse Percentages - Exam Questions

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Term 4

Student Learning Journey

Subject: Mathematics Year 9 3D Shape and Space: KLP 1

Previously you have learnt

How to identify 2D shapes, and know if they are regular or irregular. How to find the volume and surface area of 2D shapes. How to describe different types of polygons and how to solve real life problems involving area and perimeter.

In this unit you will learn

How to recognise and sketch 3D solids, and how to name key 3D solids. How to identify the key features and names of common 3D shapes. How to sketch elevations and plans of shapes made from simple solids.

Key Vocabulary and Terminology

Tier 2: dimension, sketch, calculate, convert, net, estimate

Tier 3: face, edge, vertex, cylinders, cube, cubes, prism, pyramid, sphere, cones, side elevation, front elevation

Further Learning

Naming 3D Shapes Quiz

Interactive Nets of 3D Shapes

Exam Questions for 3D Shapes

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	**Team Work**	Leadership
Determination	Curiosity	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Algebra in Context: KLP 1, 2, 3, 4

Previously you have learnt

How to form expressions in algebra, and how to interpret algebra into words. You will also have learnt how to collect like terms, how to multiply terms, how to multiply terms with brackets. You will have learnt how to apply algebra to powers.

In this unit you will learn

How to apply algebra in a variety of real life situations. You will learn how to substitute values into expressions, and how to solve linear equations. You will learn how to find the area and perimeter of shapes, and then how to apply your algebra skills to solve problems involving shapes. You will then learn how to apply Pythagoras' Theorem to find missing lengths of right angled triangles.

Key Vocabulary and Terminology

Tier 2: area, perimeter, inverse, indices, square root

Tier 3: variable, term, equation, formula, linear, coefficient, surd

Further Learning

Algebraic Expressions for Perimeter & Algebraic Perimeters Practice

Linear Equations Practice

Pythagoras' Theorem

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	**Team Work**	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Term 5

Student Learning Journey

Subject: Mathematics Year 9 Data and Statistics: KLP 2

Previously you have learnt

How to collect data using tables, and how to display both discrete and continuous data in tables. You have learnt how to interpret data from different from different types of timetables and two-way tables.

In this unit you will learn

How to display information using charts and graphs, and how to interpret charts and graphs. These charts include pictograms, composite bar charts, comparative bar charts, bar-line charts, vertical line charts, line graphs, histograms and stem and leaf diagrams. You will learn how to find averages from different charts, and how to identify trends and relationships between bar charts and line graphs.

Key Vocabulary and Terminology

Tier 2: construct, interpret, chart, graph, sample, population, data

Tier 3: pictograms, composite bar charts, comparative bar charts, bar-line charts, vertical line charts, line graphs, histograms, stem and leaf diagrams, discrete data, continuous data

Further Learning

Types of Graphs and Charts

GCSE Exam Questions: Representing Data

GCSE Exam Questions: Interpreting Data

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Ratio & Proportion: KLP 1

Previously you have learnt

How to recognise common factors, how to find highest common factors and lowest common multiples. How to identify prime numbers, and how to simplify fractions to their simplest form.

In this unit you will learn

How to divide a quantity into a given ratio. How to apply ratio to solve a range of problems which involve sharing a quantity. You will learn how to understand ratio as a fraction, how to compare ratios and how to apply ratios to problems involving area and volume.

Key Vocabulary and Terminology

Tier 2: ratio, proportion, relationship, represent, statement

Tier 3: direct proportion, inverse proportion, equation, constant, variable

Further Learning

Sharing into a Ratio: Graphic

Ratio in different Contexts

Ratio: Exam Style Problems

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Term 6

Student Learning Journey

Subject: Year 9 Mathematics Algebra in Context: KLP 5

Previously you have learnt

How to form expressions in algebra from real life contexts. You have learned how to substitute values into expressions, and how to solve linear equations. You have learned how to apply these skills to find the area and perimeter of shapes, and then how to apply your algebra skills to solve problems involving shapes. You will then learn how to apply Pythagoras' Theorem to find missing lengths of right angled triangles.

In this unit you will learn

How to form equations in algebra based on real life context, and how to interpret algebra into words. You will learn how to solve more complex problems using angle and perimeter of compound shapes. You will also learn how to derive simple formulae.

Key Vocabulary and Terminology

Tier 2: area, perimeter, inverse, indices, square root

Tier 3: variable, term, equation, formula, linear, coefficient, surd

Further Learning

Algebraic Expressions for Perimeter & Algebraic Perimeters Practice

Forming And Solving Equations

Forming Equations: Practice Questions

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	**Team Work**	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 2D Shape and Space: KLP 3

Previously you have learnt

How to use a protractor to draw an angle. You have learned how to recognise key angles, and how to recognise and describe different types of triangles.

In this unit you will learn

How to use a compass to sketch standard constructions. You will learn how to construct perpendicular bisectors and diagrams given specific information. You will also learn how to construct loci and describe regions satisfying a combination of loci. You will also learned how to construct and interpret scale drawings from maps.

Key Vocabulary and Terminology

Tier 2: scale, accuracy, estimate, compass, protractor

Tier 3: perpendicular bisector, constructions, loci, line segment, obtuse, acute, reflex

Further Learning

Loci & Constructions

Perpendicular Bisector

Scale Drawings

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Data and Statistics: KLP 3, 4

Previously you have learnt

How to display information using charts and graphs, and how to interpret charts and graphs. These charts included pictograms, composite bar charts, comparative bar charts, bar-line charts, vertical line charts, line graphs, histograms and stem and leaf diagrams. You have also learned how to find averages from different charts, and how to identify trends and relationships between bar charts and line graphs. You have also learned how to recognise fractions visually, and convert between fractions, decimals and percentages.

In this unit you will learn

How to interpret data in a pie chart, and how to construct a pie chart from data. You will learn how to find averages from a pie charts, and identify relevant contexts for pie charts.

Key Vocabulary and Terminology

Tier 2: proportion, data, percentage, compare

Tier 3: pie chart, mode, frequency, sectors

Further Learning

Drawing Pie Charts: Practice Questions

Interpreting Pie charts - Maths - Learning with BBC Bitesize - BBC Bitesize

Pie Charts: Practice Exam Questions

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Term 1

Student Learning Journey

Subject: Mathematics Year 9 Number Sense: KLP 1, 2

Previously you have learnt

How to recall multiplication facts for numbers between 1 and 12 and how to multiply and divide by 10, 100 and 1000. You will also have learnt the order of operations and how to apply basic index laws.

In this unit you will learn

How to calculate with positive and negative integers and decimals. You will learn how to calculate and solve problems involving HCF and LCM. You will learn how to round values to varying degrees of accuracy and use estimation to support calculations.

Key Vocabulary and Terminology

Tier 2: evaluate, process, decimal, figure, numeral, product, factor, multiple

Tier 3: common multiple, times table, integer, significant figure, standard form, HCF, LCM, prime, prime number decomposition

Further Learning

Significant Figures

Dividing Decimals

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Representing Numbers: KLP 1

Previously you have learnt

How to perform calculations with integers, and estimate solutions of problems in real life contexts. You have also learnt how to represent fractions visually, and how to order key fractions, decimals and percentages.

In this unit you will learn

How to convert between fractions, decimals and percentages, and how to order the values by size. You will consider several different strategies, depending on the values. You will learn how to simplify fractions, how to convert between mixed numbers and improper fractions and how to apply arithmetic to different fractions. You will learn how to convert recurring decimals into fractions.

Key Vocabulary and Terminology

Tier 2: Compare, represent, fraction, terminating, recurring

Tier 3: Mixed number, top heavy fraction, denominator, numerator, reciprocal

Further Learning

Converting Fractions Decimals and Percentages

Fractions of Numbers - Tablet Version

Percentages in Real Life

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Introduction to Algebra: KLP 1, 2

Previously you have learnt

How to recognise and calculate square and cube numbers. You have also learned how to use index notation to represent square numbers, cubes numbers with index notation.

In this unit you will learn

How to represent real life situations using algebra. You will learn how to interpret and simplify algebraic expressions, and how to substitute values back into expressions. You will then learn how to multiply algebraic expressions in a range of forms, included where brackets are involved. You will learn how to factorise expressions in different forms.

Key Vocabulary and Terminology

Tier 2: simplify, expand, evaluate, represent, unknown

Tier 3: term, expression, equation, formula, identify, indices, powers , like terms, square root, cube root, inverse, variable, factorise, product, 'difference of two squares'

Further Learning

Practice Collecting Like Terms, Algebraic Terms Test Questions, Algebra Practice

Multiplying Expressions, Expanding Quadratics

Factorising Expressions Factorising Quadratics

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	**Team Work**	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Term 2

Student Learning Journey

Subject: Mathematics Year 9 Representing Numbers: KLP 2

Previously you have learnt

How to represent numbers using fractions and decimals, and how to recognise equal fractions. You have also developed your key numbers skills, including recognising factors of 100 and multiplying and dividing by 100.

In this unit you will learn

How to represent numbers between fractions, decimals and percentages and compare the size of different numbers. You will apply this knowledge to find percentages of a quantity, and compare the size of quantities. You will then apply your new percentage skills in context, to find VAT and to work backwards where a percentage increase or decrease has been applied.

Key Vocabulary and Terminology

Tier 2: Portion, simplify, quantity, increase, decrease, tax

Tier 3: Multiplier, percentage, loan, VAT

Further Learning

Test Your Percentages

Percentage of an Amount

Percentage Change Practice

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Algebra in Context: KLP 1, 2

Previously you have learnt

How to find the area and perimeter of simple shapes and how to find missing values in simple calculations.

In this unit you will learn

How to represent relationships between numbers using algebra. You will then learn to solve different types of linear equations. Next, you will then learn how to find the area and perimeter of different shapes and you will apply your algebra skills to form equations related to shape and space.

Key Vocabulary and Terminology

Tier 2: length, width, area, form, solve, represent

Tier 3: equation, variable, perimeter

Further Learning

Simple Linear Equation Problems

Solving Linear Equations: Practice Problems

Forming and Solving Equations from shapes

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	**Leadership**
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Ratio and Proportion: KLP 1

Previously you have learnt

How to use division to share numbers and how to represent and simplify fractions.

In this unit you will learn

How to apply ratio notation and how to divide quantities into ratios. You will apply this knowledge to find missing quantities and write fractions in terms of ratios. You will learn how to apply ratios to solve problems.

Key Vocabulary and Terminology

Tier 2: ratio, proportion, share, quantity

Tier 3: direct proportion, inverse proportion

Further Learning

Sharing in a Ratio: Bar Model

Ratio: Sharing the Total

Sharing into a Ratio

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Term 3

Student Learning Journey

Subject: Mathematics Year 9 Introduction to Algebra: KLP 3

Previously you have learnt

How to evaluate numbers that have indices, and how to find square roots. You have also learnt how to write an algebraic expression and simplify algebraic terms.

In this unit you will learn

How to apply laws of indices when working with algebra, and how to simplify algebraic terms that involve indices. You will be able to recognise powers of 2, 3, 4 and 5. You will also be able to evaluate and simplify expressions with fractional and negative indices and powers of powers. You will apply of this knowledge to solve problems involving index laws.

Key Vocabulary and Terminology

Tier 2: expression, power, simplify, inverse

Tier 3: indices, like term, square, cube, square root, cube root, reciprocal

Further Learning

Laws of indices practice questions

Laws of indices algebra practice

Negative Indices Questions

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Number Sense: KLP 3, 4

Previously you have learnt

How to write out large numbers from words. You have also learnt to recall the first 12 square numbers, and recognise the relationship between squaring and square rooting. You have previously learnt to perform calculations involving indices.

In this unit you will learn

How to represent large or small numbers in standard form, and how to perform calculations in standard form. You will learn how to apply this to different contexts. You will then learn how recognise and simplify surds, and how to perform calculations in surd notation. You will apply this to fractions, in order to rationalise the denominator of a fraction.

Key Vocabulary and Terminology

Tier 2: express, multiply, square, inverse

Tier 3: standard form, surd, rational, irrational number, rationalise

Further Learning

Standard Form Practice Questions

Surds - Examples

Surds Practice Questions

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Data & Statistics: KLP 1, 2

Previously you have learnt

How to collect data with tally charts and how to represent data in bar charts. You have also learnt to interpret data from basic charts and table.

In this unit you will learn

How to implement the data collection process and how to represent and interpret data. You will learn to specify a problem, plan how to collect data, consider bias and different types of sources. You will understand how different sample sizes may skew results. You will learn how to identify the correct chart to use for a data set and product several different types of graphs and charts. You will learn how to find averages from different charts and recognise simple patterns in the data.

Key Vocabulary and Terminology

Tier 2: Data, bar chart, line chart, average, bias, sample, population, trend, distributions, primary and secondary data, survey

Tier 3: frequency polygon, time-series graph, comparative bar chart, composite bar chart, dual bar chart

Further Learning

Sampling: GCSE Questions, Data Sampling and Questionnaires Worksheets

Bar Charts: GCSE Questions, Line Graphs: GCSE Questions

GCSE Pie Charts Questions

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Representing in Numbers: KLP 3

Previously you have learnt

How to convert between percentage and decimals. How to find the percentages of amounts, and how to increase and decrease amounts by a given percentage. You have applied percentages to several real life contexts.

In this unit you will learn

How to calculate percentage change in real life contexts. You will learn to apply multipliers to calculate repeated proportional change. You will learn about compound interest and depreciation in many important real life financial situations.

Key Vocabulary and Terminology

Tier 2: appreciation, depreciation, simple interest, compound interest, VAT

Tier 3: multiplier, rate of change

Further Learning

Compound Interest Practice Questions

GCSE Repeated Percentage Change Questions

Repeated Percentage Change GCSE Questions

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Term 4

Student Learning Journey

Subject: Mathematics Year 9 Trigonometry: KLP 1

Previously you have learnt

How to solve linear equations, and how to square and square root values. How to identify different types of 2D shapes. How to solve problems using area and perimeter. How to plot coordinates and recognise a line in the form y=mx+c.

In this unit you will learn

How to identify the hypotenuse of a triangle, and how to apply Pythagoras' Theorem to find side lengths of right angled triangles. Using Pythagoras' Theorem, you will learn to justify whether or not a triangle in right angled. You will then learn how to apply Pythagoras' Theorem to find the length of a line segment, and how to apply Pythagoras' Theorem to 3D shapes.

Key Vocabulary and Terminology

Tier 2: formula, right angled triangle, 3D shape, squaring, square rooting, justify

Tier 3: hypotenuse, Pythagoras' Theorem, surds

Further Learning

Pythagoras' Theorem

Length of a Line Segment

3D Pythagoras

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Algebra in Context: KLP 3

Previously you have learnt

How to calculate the area and perimeter of a range of 2D polygons. You have learnt how to solve linear equations, and how to substitute values into a formula. You have also learnt how to square and square root values.

In this unit you will learn

How to identify and describe the key features of a circle, including the radius. How to calculate the area and the circumference of circles, and of sectors. How to calculate the perimeters and areas of composite shapes involving circles. You will learn how to apply your knowledge to solve problems, and to find a missing radius. You will calculate all of this in terms of both pi and with significant figures.

Key Vocabulary and Terminology

Tier 2: circle, sector, proportion, area, perimeter, degrees

Tier 3: radius, diameter, circumference, formula, arc

Further Learning

Parts of a Circle

Area of a Circle: Exam Questions

Arc Lengths - Circles, Sectors and Arcs

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	**Leadership**
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Excellence | Aspiration | Achievement | Inspiration | Community

Student Learning Journey

Subject: Mathematics Year 9 Probability: KLP 1

Previously you have learnt

How to interpret probability on a scale from 0 to 1, and how to interpret words like 'unlikely', 'impossible, 'certain' on the scale. Find probabilities as a fraction for simple events. How to list outcomes of events systematically.

In this unit you will learn

Use fractions, decimals and percentages to represent probabilities. Identify independent, dependant and mutually exclusive events. How to represent and calculate probabilities from two-way tables. Represent events in Venn Diagrams, and tree diagrams, and calculate probabilities from each. Use both diagrams to calculate conditional probability.

Key Vocabulary and Terminology

Tier 2: impossible, unlikely, even chance, likely, certain, probability, experimental

Tier 3: Venn diagram, tree diagram, two way table, sample space diagram, relative frequency, theoretical frequency, conditional probability

Further Learning

Probability Scales

Venn Diagram GCSE Questions

Tree Diagrams GCSE Questions

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	**Social Intelligence**	**Citizenship**

Student Learning Journey

Subject: Mathematics Year 9 Sequences and Graphs: KLP 1

Previously you have learnt

How to recognise different types of sequences. How to solve linear equations.

In this unit you will learn

How to describe sequences both as a term to term rule, and using algebra. Identify arithmetic and geometric sequences, and find the nth term for both linear and quadratic sequences. How to apply the nth terms in order to solve problems.

Key Vocabulary and Terminology

Tier 2: difference, describe, sequence

Tier 3: nth term, linear, geometric, quadratic, term

Further Learning

Linear Sequences

Quadratic Sequences

GCSE Exam Questions: Sequences

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Term 5

Student Learning Journey

Subject: Mathematics Year 9 3D Shape and Space: KLP 1

Previously you have learnt

How to recognise and classify a range of 2D shapes. How to apply angle facts to find missing angles in 2D shapes and solve problems involving angles. You will be able to name basic 3D shapes and identify their key features.

In this unit you will learn

How to recognise and sketch 3D solids, and how to name key 3D solids. How to identify the key features and names of common 3D shapes. How to sketch elevations and plans of shapes made from simple solids.

Key Vocabulary and Terminology

Tier 2: volume, capacity, length, width, height, edges, faces

Tier 3: surface area, perimeter, vertices, nets, cylinders, cube, cubes, prism, pyramid, sphere, cones, side elevation, front elevation

Further Learning

Naming 3D Shapes Quiz

Interactive Nets of 3D Shapes

Exam Questions for 3D Shapes

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	**Courage**	Commitment	**Team Work**	Leadership
Determination	Curiosity	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 2D Shape and Space: KLP 1

Previously you have learnt

How to recognise simple 2D shapes and describe their key features. You have also learnt how to measure angles using a protractor, and recognise different types of angles. You will know key angle facts for angles around a point and on a line.

In this unit you will learn

How to classify quadrilaterals using their key features, and recognise different types of triangles. You will be able to use this information to find missing angles in these shapes. You will learn to calculate both interior and exterior angles in triangles and quadrilaterals. You will learn and apply key angle facts for parallel lines, to find missing angles, and to justify the size of angles.

Key Vocabulary and Terminology

Tier 2: angle, parallel, perpendicular

Tier 3: polygon, regular, irregular, isosceles, scalene, equilateral, right angled, interior and exterior angles, congruent, quadrilaterals, corresponding, alternate angles, co-interior angles

Further Learning

Triangles: GCSE Quiz

Angles in Parallel Lines: Explanation

Angles in Parallel Lines: Exam Style Questions

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Algebra in Context: KLP 4

Previously you have learnt

How to find the area and perimeter of a range of shapes. You have learned to form equations based on area and perimeter, and use algebra to help you solve problems involving shapes.

In this unit you will learn

How to identify the difference between a term, an expression, an equation, a formula and an identity. You will learn how to derive simple formulae, and how to change the subject of a formula. In particular, you will learn how to use the kinematics formula in real life contexts.

Key Vocabulary and Terminology

Tier 2: derive, substitute, subject, acceleration, speed, initial, velocity

Tier 3: formula, term, expression, identity, equation

Further Learning

Expression, Identity, Equation or Formula - Practice

Formulae: Exam Questions

Hatton Character Qualities

Resilience	**Open Mindedness**	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	**Leadership**
Determination	**Curiosity**	**Verbal Confidence**	**Social Intelligence**	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Data and Statistics: KLP 3

Previously you have learnt

How to implement the data collection process and how to represent and interpret data. You will learn to specify a problem, plan how to collect data, consider bias and different types of sources. You will understand how different sample sizes may skew results. You will learn how to identify the correct chart to use for a data set and product several different types of graphs and charts. You will learn how to find averages from different charts and recognise simple patterns in the data.

In this unit you will learn

How to calculate different averages from lists of data and different charts. You will learn how to interpret these averages to make judgements. You will also learn how to compare distributions using different measures. You will learn to estimate averages from grouped data, and discuss the accuracy of your estimation.

Key Vocabulary and Terminology

Tier 2: Data, chart, graph, average, compare, justify, interpret, estimate

Tier 3: distribution, skew, stem and leaf diagram, frequency polygon, median, mean, mode, range, interpolate, extrapolate, grouped data, continuous data, discrete data

Further Learning

Averages from Steam and Leaf Diagrams

Analysing Data

Grouped Data: Exam Questions

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	**Responsibility**	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Term 6

Student Learning Journey

Subject: Mathematics Year 9 Representing Movements: KLP 1, 2

Previously you have learnt

How to recognise similar shapes, and how to describe movements of shapes on coordinate axis. You have learned how to apply angle facts and how to solve problems using Pythagoras' Theorem and trigonometry.

In this unit you will learn

How to identify, describe and apply transformations on 2D shapes. You will learn how to find scale factors and identify congruent shapes. The transformations you will learn are; translations using a vector, rotations using a centre, enlargements using a centre and scale factor and a reflection using a mirror line in the form y=mx+c. You will then learn how to describe and apply bearings to real life contexts, and solve problems involving bearings.

Key Vocabulary and Terminology

Tier 2: parallel, perpendicular, north, east south, west, transformation, rotation, reflection, enlargement,

Tier 3: movement, relationship, direction, column vector, scalar multiplication, scale factor, bearing

Further Learning

Interactive Reflections, Interactive Rotations, Interactive Translations

Lesson: Describing Transformations, Transformations Quiz

Interactive Bearings & Trigonometry , Bearings: Practice Exam Questions

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 2D Shape and Space: KLP 2

Previously you have learnt

How to recognise and describe a range of 2D shapes. You have learned to calculate both interior and exterior angles in triangles and quadrilaterals. You have learned a range of angle facts in shapes and in parallel lines. You have used these to find missing angles, and to prove the size of angles.

In this unit you will learn

How to describe key features of a circle. You will learn to recognise and apply a range of different circle theorems to find a missing angle. You will learn to construct a logical proof when applying circle theorems.

Key Vocabulary and Terminology

Tier 2: angle, parallel, perpendicular, semi circle, prove, justify

Tier 3: radius, diameter, circumference, segment, chord, arc, pi, subtended, cyclic quadrilateral, alternate segment,

Further Learning

Interactive Circle Theorems

Circle Theorems Practice

Circle Theorems: Exam Style Questions

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Mathematics Year 9 Data and Statistics: KLP 4

Previously you have learnt

How to implement the data collection process and how to represent and interpret data. You will learn to specify a problem, plan how to collect data, consider bias and different types of sources. You have learned how to interpret averages to make judgements, and how to compare distributions.

In this unit you will learn

How to identify when it is appropriate to use a scatter graph. You will learn to draw and interpret scatter graphs, identify correlation and identify outliers. You will learn how to interpret a line of best fit, and how to make predictions and identify trends.

Key Vocabulary and Terminology

Tier 2: relationship, correlation, positive, negative

Tier 3: interpolate, extrapolate, continuous data, bivariate data, causality

Further Learning

Collecting Data

Scatter Graphs

Scatter Graphs: Exam Questions

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	**Responsibility**	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	**Curiosity**	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Music Year 9 GCSE Term 4

Previously you have learnt

During Term 3 you have been developing your knowledge of Blues and Jazz through the study of Area of Study 2: Music For Ensemble, and building upon your knowledge of music theory through Area of Study 1: Musical Devices and Forms.

In this unit you will learn

This term you will continue expand your music theory and appraising knowledge through Area of Study 1; Musical Forms and Devices.

Alongside this you will develop your knowledge of leitmotifs and sonic characteristics in music for Film, covering Area of Study

Key Vocabulary and Terminology

Tier 2: compose, contrast, improve, develop, variation, evaluate, texture, structure, dynamics, tempo, simple, duple, triple, quadruple, compound

Tier 3: monophonic, homophonic, polyphonic, verse-chorus, conjunct, disjunct, regular meter, irregular meter, sonority, tonality

Further Learning

Structure in Music

Binary Ternary Rondo Strophic Theme and Variation

Musescore – Free Music notation software

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Religious studies Year 9 Religion and Science

Previously you have learnt

What Justice is, and how fairness can be achieved in this life and a potential afterlife. You have applied religious beliefs and scripture to ideas of fairness and justice. You have considered the impact that religion has on our everyday life, whether you are theist, atheist or agnostic. By exploring links between religion and law, religion and music, religion and fashion and religion and sport, you should be able to draw conclusions about how much religion has an impact on your life.

In this unit you will learn

To consider the relationship between Religion and science, considering religious and Humanist views of medical ethics, artificial intelligence and genetic engineering. This unit examines the concept of the sanctity of life in various contexts.

Key Vocabulary and Terminology

Tier 2: science, evolution, technology, biology, conception, surveillance, cloning, harm, suffering, compassion

Tier 3: fundamental, liberal, soul, free will, sanctity of life, four noble truths

Further Learning

Christianity and science

What Buddhism and science can teach each other

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	**Social Intelligence**	Citizenship

Student Learning Journey

Subject: Science Year 9 Biology CB4 Natural Selection and Genetic Modification

Previously you have learnt

In Year 8, you learnt how genes are passed on and that variety is necessary for evolution to occur. Organisms adapt to their surroundings over time due to evolution.

In this unit you will learn

To describe Darwin's theory of evolution, discuss the evidence that we have for human evolution, describe how organisms are classified, explain selective breeding and its impacts on plants and animals and compare selective breeding and genetic modification.

Key Vocabulary and Terminology

Tier 2: Theory, evidence, discuss.

Tier 3: Evolution, competition, variation, survival of the fittest, fossils, selective breeding, genetic modification.

Further Learning

BBC Bitesize – Natural Selection and Genetic Modification Notes

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	**Verbal Confidence**	Social Intelligence	Citizenship

Student Learning Journey

Subject: Science Year 9 Chemistry CC3 CC4 Atomic Structure and the Periodic Table

Previously you have learnt

In Year 7, you learnt the history and structure of atomic models, definitions of the terms relative atomic mass and atomic number and key features of Mendeleev's periodic table.

In this unit you will learn

To explain how models are developed to understand the structure of the atom, describe the atomic structure of atoms and describe the atomic structure of isotopes. You will describe the structure of Mendeleev's periodic table, describe the structure of the modern periodic table and connect electron configurations with the modern periodic table.

Key Vocabulary and Terminology

Tier 2: Explain, describe, compare, connect.

Tier 3: Atom, element, subatomic particle, proton, neutron, electron, relative atomic mass, isotope, period, group, properties.

Further Learning

BBC Bitesize - Atomic Structure Notes

BBC Bitesize - The Periodic Table Notes

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Science Year 9 Chemistry CC13 Groups in the Periodic Table

Previously you have learnt

In Year 9, you have learnt to describe the structure of an atom and to explain why atoms have equal numbers of protons and electrons. You have learnt to connect the electronic configuration of atoms with their position in the periodic table.

In this unit you will learn

To connect electron structure with the formation of ions. You will learn to explain the reactivity and chemical properties of Group 1, Group 7 and Group 0 elements.

Key Vocabulary and Terminology

Tier 2: Explain, connect, describe, formation.

Tier 3: Ionic, ion, cation, anion, reactivity.

Further Learning

BBC Bitesize – Revision Notes

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Excellence | Aspiration | Achievement | Inspiration | Community

Student Learning Journey

Subject: Sociology Year 9 How is Society Divided?

Previously you have learnt

The role of a sociologist in society and as a career. This includes the development of your sociological imagination and the importance of understanding issues of inequality and societal systems. You have also learnt about the difference between primary and secondary socialisation.

In this unit you will learn

How society is divided by process of globalisation and stratification. We will explore examples of inequality by CAGE factors and propose potential solutions. During this unit we will apply our learning to a reading text called *Nowhere Boy*; this will enable us to view stratification in action.

Key Vocabulary and Terminology

Tier 2: Equality, inequality, class, age, gender, ethnicity, poverty, racism, sexism

Tier 3: Globalisation, types of poverty, glass ceiling, migration, CAGE, impacts, stratification, institutional racism, discrimination, charity, social mobility, life chances

Further Learning

Are people treated equally?

How can citizens bring about change?

Hatton Character Qualities

Resilience	Open Mindedness	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	Curiosity	Verbal Confidence	Social Intelligence	Citizenship

Student Learning Journey

Subject: Spanish Year 9 La tecnología (technology)

Previously you have learnt

In Year 7, we learnt about hobbies, including gaming and using technology, and talked about this in the present tense. In Year 8, we learnt to talk about films and television using three tenses.

In this unit you will learn

How to extend talking about film and television to talking about social media and mobile technology. We will give reasons and opinions on why we think they are useful or not and what we use technology for. We will also discuss the dangers of cyber bullying.

Key Vocabulary and Terminology

Tier 2 question words, perfect tense, present continuous

Tier 3 ¿Cómo usas la tecnología? ¿Qué hiciste últimamente con la tecnología?

Further Learning

Please look at our department Padlet under Y9

KS3 Spanish

Hatton Character Qualities

Resilience	Open Mindedness	**Creativity**	**Responsibility**	Empathy
Self-Regulation	Courage	**Commitment**	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	**Social Intelligence**	Citizenship

Student Learning Journey

Subject: PE -BTEC Sport Component 1 Preparing Participants to Take Part in Sport

Previously you have learnt

This will be your first Unit of theory based Sport so you may find most if not all of the learning in this Unit quite new

In this unit you will learn

In Component one you will look at the types of sport and activities available for different types of participant along with looking at sport providers and barriers which may prevent sport participation. Task two looks at the types of equipment and technology for Sport and Physical Activity, with task three going on to give you the opportunity to lead small group practices and game based situations.

Key Vocabulary and Terminology

Tier 2 sport activities, describe, explain, evaluate, barriers

Tier 3 Characteristics , Cardiorespiratory, Musculoskeletal, adapting, delivering

Further Learning

Specification - Pearson BTEC Level 1/Level 2 Tech Award in Sport 2022 Issue 2

Use the revision books that we have purchased for you

Hatton Character Qualities

Resilience	**Open Mindedness**	Creativity	Responsibility	Empathy
Self-Regulation	Courage	Commitment	Team Work	Leadership
Determination	**Curiosity**	Verbal Confidence	Social Intelligence	Citizenship

Reflection on my learning journey

What do I remember form last term? (complete at the start of the term)			
Date of diary entry (complete	**Key things I have learned during this term.**	**Questions I have for the teacher and their response.**	**Confidence levels with this terms topics.**
			
How have this terms PE sessions built on my knowledge and skills from last term (complete at the end of the term)			