FORGE VALLEY

Key Stage 3 Handbook 2023-2024

Information for Parents, Carers and Pupils

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Key Contacts

Communication is key for Forge Valley School and we believe having a strong communication with parents and carers will support our community and ensure positive strong relationships.

Please use the key contacts if you do have a question or queries regarding your child's pastoral care or academic progress:

Year 7: Ms Newton anewton@forgevalley.sheffield.sch.uk

Year 8: Mr Warne lwarne@forgevalley.sheffield.sch.uk

Year 9: Mr Mintoft rmintoft@forgevalley.sheffield.sch.uk

Curriculum Lead: Mr Watson jwatson@forgevalley.sheffield.sch.uk

Introduction

We have produced this handbook to help families support the learning of their child.

Feedback from families has suggested that you would like to know what your child is learning and when so that you can support them further with learning at home.

This handbook is designed to support with that process and give you an understanding of what is being learnt at differing points in the academic year, across all subjects. It is also designed to try and condense information into one document to make the information as accessible as possible to all of our families.

This document intends to provide an overview. Further information can be accessed through the 'Curriculum' section of our school website – this includes homework, mastery activities and more detailed content on specific units of study. Any questions can be directed to Directors of Learning and Subject Leaders, each of whom is listed at the top of each subject information page.

We would be grateful to receive any feedback you may have on this document so that we can endeavour to meet our ambitions in supporting our families' knowledge of our school curriculum.

Please contact school's Curriculum Lead, Mr Watson via jwatson@forgevalley.sheffield.sch.uk should you wish to share your views.

Curriculum Plan Overview

Overview

- Key Stage 3 pupils have 25 hours per week of lesson time with access to a wide range of extra-curricular learning, details of which can be found within our school website.
- Year groups are split into three bands in Key Stage 3 (X, Y and Z).
- For languages, pupils commence studying a language in Year 7 and we encourage all pupils to continue with that language through to Key Stage 4.
- Year 9 GCSE Pathways, pupils opt in Year 9 (February) from a set of subjects for studying in Year 10 and 11. More information will follow during Year 9.

Year 7	
Subject Areas	**Number of hours per week**
English	3
Maths	4
Science	3
Tech (DT/ Product Design/Textiles/Food)	2
Languages (Spanish)	3
Geography	1
History	2
RE	1
PE	2
Art	1
Performing Arts	1
Personal Development	1
ICT and Computer Science	1

Year 8	
Subject Areas	**Number of hours per week**
English	4
Maths	3
Science	3
Tech (DT/ Product Design/Textiles/Food)	2
Languages (Spanish)	3
Geography	2
History	1
RE	1
PE	2
Art	1
Performing Arts	1
Personal Development	1
ICT and Computer Science	1

Year 9	
Subject Areas	**Number of hours per week**
English	4
Maths	4
Science	3
Tech (DT/ Product Design/Textiles/Food)	2
Languages	2
Geography	1.5 (rotating two-week timetable)
History	1.5 (rotating two-week timetable)
RE	1
Personal Development	1
PE	2
Performing Arts	1
ICT and Computer Science	1
Art	1

GCSE

Key Stage 4, Year 10 and Year 11, work towards GCSE and vocational qualifications.

The year groups are split into two bands. KS4 curriculum is a mixture of 6 Core subjects and 3 Option subjects. All KS4 pupils should take at least one humanity (History / Geography). All KS4 pupils are encouraged to follow a full EBACC programme of study, which means they will take at least one humanity (History/Geography), continue to learn Spanish to GCSE, and have 1 further open option.

All pupils will participate in the core subject areas, these include: English Literature, English Language, Mathematics, Science (Triple or Core), Core PE, RE and Personal Development days.

Pupils can opt for 3 of the following subject areas: Spanish, History, Geography, Music, Product Design, BTEC Sport, Hospitality & Catering, Art, Business Studies, Performing Arts, Computer Science, and Health & Social Care. To allow for the full EBACC programme of study pupils need to study a language, humanity and one further option.

Starting in January, pupils in Year 9 will participate in the GCSE Pathways process, here they will find out all about their GCSE options through assemblies, form discussions, Personal Development lessons, parent and carer presentations and during form time with their form tutor. Pupils will be provided with lots of support to ensure they have made the right decision for them now and their future.

Curriculum Intent

The curriculum at Forge Valley School has been developed to provide a broad, balanced and ambitious learning experience for all of our pupils.

By ensuring that every child has access to a high-quality curriculum, delivered by expert teachers in specialised classrooms we aim to develop our pupils into well rounded, morally grounded, ambitious and resilient individuals ready to take their place in a dynamic and diverse 21st Century.

We want all of our pupils to master learning concepts by engaging in thinking, elaborating and actively exploring ideas. We wish all of our pupils to be able to apply their learning to differing concepts and context and make it increasingly adaptable and extensive.

We want all our pupils and students to acquire powerful knowledge to take all beyond their own experiences, enabling social mobility with a focus on social justice for all. We will incorporate a range of opinions, voices, and experiences within our curriculum ensuring that cultural capital and essential knowledge is incorporated to allow an equitable education for all.

We seek to ensure pupils are in-depth readers and are confident in being able to develop emotional, personal responses to texts, their personal life experiences, their ideas, and their imagination. Reading is not subject specific, and all subjects taught within our curriculum are not discreet, sharing common goals and connections. Furthermore, learning is carefully sequenced to allow pupils opportunity to continue developing, furthering and challenging their on-going knowledge and skills.

The breadth and variety within our curriculum allow pupils and students to think and work creatively. This is further supported by opportunities to engage with activities outside of the classroom including extra-curricular clubs and activities ranging from sports and outdoor pursuits to IT, reading and cookery. These activities support academia and continue to support the growth of cultural capital for our pupils and students allowing us to realise the life chances and dreams of every child.

Assessment

Assessments are calendared at points throughout the school year. When an assessment is approaching, we will share details of revision topics with all pupils and families. This information will support revision and preparation for assessments; the results of these assessments will be shared with families through our tracking processes and will inform our interventions going forward.

In addition to calendared assessment weeks listed below all subjects will use a range of assessment methods to track pupil progress. These could range from written assessment papers completed in lessons, presentations, quizzes, self and peer assessment, evaluations etc.

Tracking:

We report pupil progress through our tracking procedures. There are two tracks per year for Key stage 3, these are shared electronically via MCAS and paper copies are available to families upon request. On each tracking you will find the following information:

- **Assessment Percentage –** This is the percentage that your child achieved in the most recent assessments.
- **Average Assessment Percentage achieved by the year group in individual subjects –** This is something we produced after consultation with families during the last academic year. We hope that this supports pupils and families contextualise their progress and achievement. This shows the average percentage achieved within each individual subject assessment.
- **A Behaviour for Learning Judgement** ranging from outstanding, good, requires improvement or inadequate.
- **Meeting Expectations**
    - **'Y' and a green coloured box –** this indicates they are meeting or exceeding their teacher's expectations.
    - **'N' and an orange coloured box –** this indicates they are not yet meeting expectations.
- **Additional Comment –** there will be a detailed additional comment on specific next steps your child should take to improve their knowledge or exam technique in each subject area. We hope this provides support for families when helping your child with work at home.

Homework at Key Stage Three

Homework set at Forge Valley School is set in line with our touchstone of '*meaningful, manageable, and predictable*'.

Homework enables pupils to:

- Consolidate and extend work covered in class, to master concepts and make links with prior learning.
- Access resources not available in the classroom.
- Develop research skills.
- Have an opportunity for independent work.
- Show progress and understanding.
- Provide feedback in the evaluation of teaching.
- To enhance their study skills e.g. planning, time management and self-discipline.
- To take ownership and responsibility for learning.
- Engage parental co-operation and support.
- Create channels for home school dialogue.

Homework Support

The Learning Resource Centre (LRC) is open each day from 2:50pm until 3:50pm. Pupils can attend the LRC for help with their homework, or to use ICT resources in support of their work. Pupils unable to access online resources at home shall be provided with paper copies by their class teacher on request.

Mastery

Homework for all pupils in school shall focus on the mastery of key skills and strengthening the learning of key concepts, making clear links with prior learning. Mastery is an inclusive way of teaching that is grounded in the belief that all pupils can achieve. A concept is deemed mastered when learners can represent it in multiple ways, can communicate solutions using appropriate language and can independently apply the concept to new problems.

Homework shall be an opportunity for pupils and their families to re-examine topics taught in lessons and use a series of resources to help the mastery of that concept. This should encourage every pupil to preserve and grasp knowledge they didn't previously understand.

Key Stage Three

Homework at Key Stage Three provides all pupils with an opportunity to develop mastery of topics studied in their lessons. Pupils and families shall be able to view, download and use a series of resources via the school website which shall enable them to solidify, develop, and engage further with what they are studying or concepts that need re-affirming following missed direct learning time following extended school closure. Learning sequences and topics covered in lessons at different points in the year can also be accessed by families to support their child with mastering what is being studied in lessons.

This will provide a further means for pupils to link their current learning to what has been taught before.

Pupils should spend around 30 minutes per week on each subject mastering the content taught in lessons. Tasks will mostly be revision and learning based and understanding will be assessed as part of usual marking and feedback alongside regular in-lesson mastery testing. At Key Stage 3 we will continue trialling innovative ways of using Homework to support progress. This includes weekly reading Homework in English, the use of interactive software in Maths and regular vocabulary practice in Languages - all of which support subject mastery.

Careers and Extra/Super Curricular

Each year group from Year 7 through to Year 13 have access to a vast array of careers information and have the opportunity to experience many different extra and super curricular activities. Below lists only a few examples for pupils:

Careers:

- Assembly
    - Each year group will have an assembly that is age appropriate focusing on local labour market updates and opportunities. The aim is to ensure all pupils know about the local industry and skills required for the in-demand roles.
- Unifrog
    - Is a tool for pupils to research career opportunities and identify action points to work towards these goals. The site covers apprenticeships, University and College. All pupils will be given the opportunity to learn how to navigate the platform and how to record meaningful encounters and experiences that they have had throughout their time at school
- Careers in Personal Development lessons
    - In KS3 all pupils receive weekly lessons on Personal Health Social and Economic Education. As part of this provision pupils receive age-appropriate information on career opportunities, employment rights, further education and progression guidance.
- 1:1 Careers interviews
    - Throughout Year 11 or earlier where required, all pupils will have the opportunity to attend a one-to-one careers interview with a qualified careers advisor. A report will be produced for each pupil highlighting their current ideas, aspirations and possible pathways to achieve their goals. These are shared with pupils and parents/carers.

Extra-curricular activities

At Forge Valley School we are passionate about providing all pupils with the opportunities to enhance their physical and emotional well-being, enabling them to become active citizens by developing and discovering their interests and talents.

To assist this there is a vast array of extra-curricular activities for pupils to partake during their time at school. Pupils will be provided a timetable which outlines all the different clubs available to them. This will also be displayed in their form room and in pupil reception.

English

Director of Learning: Ms C Mason

Key Stage 3 Leader: Ms L McKevitt

Curriculum Intent:
Knowledge is at the heart of English. At Forge Valley we believe that English is the foundation of all other subjects. It is essential for increasing the life chances of our pupils and for opening a world to them that reaches far beyond their experiences. English also equips pupils to confidently challenge viewpoints and empowers them to express themselves succinctly.

Everyone will explore the best that has ever been thought and written, and we will be encouraged to empathise with the lives of people past and present and allow us to embark on a journey of self-discovery. Studying English will provide pupils with the opportunity to broaden their cultural capital and develop their creative and critical thinking skills.

Teachers will model the processes of thinking, writing, analysing and reading in order to inspire pupils to become successful, responsible and resilient learners.

Year 7	Year 8	Year 9
Core knowledge: **Term1:** • Greek Myths • Shakespeare – Romeo and Juliet **Term 2:** • Poetry - Rime of the Ancient Mariner • Victorian Short Stories **Term 3:** • Conflict poetry • Spoken Language – Rhetoric • Novel	**Core knowledge:** **Term1:** • Epic Poetry - The Iliad by Homer • Shakespeare – Much Ado about Nothing **Term2:** • Play – Dr Faustus • Novel - Dorian Gray **Term 3:** • Stories from around the world • Spoken Language – Rhetoric • Novel	**Core knowledge:** **Term1:** • Abridged novel – The Odyssey by Homer • Shakespeare - Othello **Term2:** • Abridged novel – Frankenstein • Victorian Poetry **Term 3:** • Stories from around the world • Spoken Language – Rhetoric • Novel – Station 11
Procedural knowledge (how to): • become a successful communicator • become a confident reader with strategies to unpick challenging texts • describe and story tell successfully – making a variety of language and structural choices to have an intended effect • write persuasively successfully – making a variety of language and structural choices to have an intended effect • engage with discussion and be courteous towards my peers • analyse a literature text, considering a range of language and structural effects of the choices made • analyse a non-fiction text, considering a range of language and structural effects of the choices made • compare and contrast two texts • confidently apply rules of grammar to writing – embedding them to create an intended effect	**Procedural knowledge (how to):** • become a successful communicator • become a confident reader with strategies to unpick challenging texts • describe and story tell successfully – making a variety of language and structural choices to have an intended effect • write persuasively successfully – making a variety of language and structural choices to have an intended effect • engage with discussion and be courteous towards my peers • analyse a literature text, considering a range of language and structural effects of the choices made • analyse a non-fiction text, considering a range of language and structural effects of the choices made • compare and contrast two texts • confidently apply rules of grammar to writing – embedding them to create an intended effect	**Procedural knowledge (how to):** • become a successful communicator • become a confident reader with strategies to unpick challenging texts • describe and story tell successfully – making a variety of language and structural choices to have an intended effect • write persuasively successfully – making a variety of language and structural choices to have an intended effect • engage with discussion and be courteous towards my peers • analyse a literature text, considering a range of language and structural effects of the choices made • analyse a non-fiction text, considering a range of language and structural effects of the choices made • compare and contrast two texts

• understand a writer's message and reasoning for writing a text • understand how the context and background of a text impacts the writing • form a detailed essay with an argument continuing throughout • engage with a range of formats, genres and purposes • summarise information • build and develop ideas in discussion	• understand a writer's message and reasoning for writing a text • understand how the context and background of a text impacts the writing • form a detailed essay with an argument continuing throughout • engage with a range of formats, genres and purposes • summarise information • build and develop ideas in discussion	• confidently apply rules of grammar to writing – embedding them to create an intended effect • understand a writer's message and reasoning for writing a text • understand how the context and background of a text impacts the writing • form a detailed essay with an argument continuing throughout • engage with a range of formats, genres and purposes • summarise information • build and develop ideas in discussion
Assessment: • Progress tasks in all lessons • Weekly quizzes • Descriptive/story teacher marked assessment • Writing to persuade teacher marked assessment • One teacher marked literature assessment • Speaking and listening assessment	**Assessment:** • Progress tasks in all lessons • Weekly quizzes • Descriptive/story teacher marked assessment • Writing to persuade teacher marked assessment • One teacher marked literature assessment • Speaking and listening assessment	**Assessment:** • Progress tasks in all lessons • Weekly quizzes • Descriptive/story teacher marked assessment • Writing to persuade teacher marked assessment • One teacher marked literature assessment • Speaking and listening assessment
Homework: Reading homework will be set at the start of the year. There is the expectation that pupils read for a minimum of 1hr per week. This is to be recorded in planners. Mastery booklets will be issued mid unit and 30mins a week homework will be set. This is to revise and prepare for the end of unit quiz.	**Homework:** Reading homework will be set at the start of the year. There is the expectation that pupils read for a minimum of 1hr per week. This is to be recorded in planners. Mastery booklets will be issued mid unit and 30mins a week homework will be set. This is to revise and prepare for the end of unit quiz.	**Homework:** Reading homework will be set at the start of the year. There is the expectation that pupils read for a minimum of 1hr per week. This is to be recorded in planners. Mastery booklets will be issued mid unit and 30mins a week homework will be set. This is to revise and prepare for the end of unit quiz.
Links to careers and personal development include: • Promoting inclusivity and diversity of all protected characteristics • Social development: Practice using a range of social skills in different situations • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships • Character: Reflect Wisely, learn eagerly, behave with integrity, cooperate • Moral development: Recognising the difference between right and wrong. • Cultural development: Understanding the wide range of cultural influences that shape an individual	**Links to careers and personal development include:** • Promoting inclusivity and diversity of all protected characteristics • Social development: Practice using a range of social skills in different situations • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships • Character: Reflect Wisely, learn eagerly, behave with integrity, cooperate • Moral development: Recognising the difference between right and wrong. • Cultural development: Understanding the wide range of cultural influences that shape an individual	**Links to careers and personal development include:** • Promoting inclusivity and diversity of all protected characteristics • Social development: Practice using a range of social skills in different situations • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships • Character: Reflect Wisely, learn eagerly, behave with integrity, cooperate • Moral development: Recognising the difference between right and wrong. • Cultural development: Understanding the wide range of cultural influences that shape an individual

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

- All skills taught in KS3 will be revisited in KS4
    - Reading challenging texts from a range of genres, time periods and writers
    - Writing analytical and comparison essays
    - Writing stories and description
    - Writing persuasively
    - Speaking and listening

Maths

Director of Learning: Mrs S Osborne

Key Stage 3 Leader: Ms H Carroll

Curriculum Intent:

At Forge Valley School we believe that numeracy and the wider application of mathematics are both fundamental to everyday life, particularly in today's fast developing world.
We aim to provide all pupils with a rewarding and enjoyable experience of mathematics throughout KS3/4/5 which opens their eyes to the part mathematics plays in every aspect of the world around us.
Ours is a mastery curriculum which focuses on high expectations for all and an increasing emphasis on analysis, logic and problem solving in a variety of situations; skills which will enable our pupils to make positive wider contributions to society in the future. Along the way we prioritise the development of basic numeracy skills for life, which will allow our pupils to function effectively as individuals too.

More specifically our curriculum is designed to enable pupils to: -

a) Develop pupils' mathematical knowledge and oral, written and practical skills in a manner which encourages confidence, interest and enjoyment and enhance self-esteem;
b) Develop a feel for number, carry out calculations and understand the significance of the results obtained, particularly in unfamiliar contexts;
c) Develop the ability to reason logically, to classify and to generalise;
d) Apply mathematics to a variety of everyday situations and develop an understanding of the part which mathematics plays in the world around them;
e) Solve problems presenting the solutions clearly, checking and interpreting the results;
f) Develop oracy skills which enable them to talk about mathematics with clarity and confidence;
g) Develop an ability to apply mathematics in other curriculum areas;
h) Produce and appreciate imaginative and creative work arising from mathematics;
i) Acquire a mathematical foundation appropriate to their further study at all levels.

Core knowledge:

Guided by the subject content of the KS3 national curriculum, building on KS2 and preparing for KS4, under the headings:

- Number
- Algebra
- Ratio, proportion and rates of change
- Geometry and measures
- Probability
- Statistics

Each end of year assessment will examine all of the headings above. The exact content of core curriculum is defined by the schemes of work for each year group.

Procedural knowledge (how to):

Guided by the subject aim of the KS3 national curriculum for Mathematics, pupils should

- Become fluent in the basics of mathematics
- Be able to reason how and why the mathematics works (or doesn't sometimes) and;
- Be able to apply their mathematics to solve problems which are both abstract and from the real world
- Be able to apply their mathematical knowledge in science, geography, computing and other subjects.
- In addition to the above: willingness to have a go and know that making mistakes is part of the learning process
- Willingness to develop mathematical skills through independent practice in and out of the maths lesson
- Set out mathematics in an ordered and structured way, showing all your working, taking pride in their work
- Have a good level of subject oracy and be able to justify and explain their mathematical reasoning
- Check answers for reasonableness
- Be able to describe numbers and shapes in terms of their properties

- Use geometric instruments accurately and effectively
- Use a scientific calculator
- Be able to apply proportional reasoning in a range of problems – pie charts, recipes, value for money, rates of change
- Understanding the importance of algebra to solve contextual problems – geometry, simultaneous equations
- Plot coordinates and draw graphs accurately
- Recall and apply and manipulate a range of formulae
- Analyse and compare data sets

Assessment:

- 2 main assessments during the year assessing the skills taught and the pupil's ability to apply skills to problem solving. They include skills that they will have learnt in previous years to ensure that they are revisiting important material.
- Assessment for learning during lessons is key to assessing pupils informally every maths lesson, so teaching is tailored to the pupils.

Homework:

- Weekly homework is set using a mixture of Hegarty Maths and paper homework and is mostly practicing the skills learnt in the past to ensure they review
- Revision tasks are also set as homework to prepare for the 2 main assessments

Links to careers and personal development include:

- Mathematical knowledge, skills and their application to problem solving is key and requires resilience and the willingness to make mistakes and learn from them
- The curriculum is linked to the real world wherever possible
- We make cross curricular links with science, technology, geography, food etc wherever possible
- We support pupils to get the best grades that they can so they have as much career choice as possible

Year 7

Half Term 1
N1.5 Add/Subtract Negatives
N1.6 Multiply/Divide Negatives
A1.3 Combining Variables
A1.4 Working with Formulae
GM5.3 Translation
SP2.4 Pie Charts

Half Term 2
SP1.1 Mode, Median, Range
SP1.2 Mode, Median, Range and Mean
SP2.2 Stem + Leaf
GM2.4 Rotational Symmetry
GM6.1 Properties of 3D Shapes
GM5.5 Rotation
N4.3 Multiplying Fractions
SP1.3 Frequency Tables
GM2.3 Angle Facts

Half Term 3
SP3.1 Collecting Data (2)
N5.1 Understanding Percentages
N5.2 Percentage of Amounts
A2.2 Generating Sequences
N7.3 Divisibility Tests
N5.3 Converting FDP

Half Term 4
N2.5 Using Number System Effectively
A3.1 Real Life Graphs
N3.4 Rounding to Decimal Places
N3.5 Round to Significant Figures
GM2.5 Angles in Triangles/Quads
GM4.2 Constructions with a Protractor
GM3.2 Area and Perimeter

Half Term 5
SP4.1 Intro to Probability
SP4.2 Single Event Probability
GM5.4 Reflection
N1.7 BIDMAS
A2.3 Linear Sequences

Half Term 6
GM2.7 Angles in Parallel Lines
GM2.6 Types of Quad
A1.5 Solving Equations
A1.6 Using Brackets
N4.4 Add/Subtract Fractions
N4.5 Mixed Numbers

Year 8

HIGHER

Half Term 1
A1.5 Solving Equations
A1.6 Using Brackets
N4.4 Add/Subtract Fractions
SP2.6 Scatter Diagrams
N4.5 Working with Mixed Numbers

Half Term 2
GM4.3 Constructions with Compass
GM6.2 Understanding Nets
N4.6 Dividing Fractions

Half Term 3
A3.2 Plotting Linear Functions
N1.8 Multiplying Decimals
N1.9 Dividing Decimals
GM1.7 Metric/Imperial Conversions
GM1.8 Bearings
GM3.3 Circumference
A3.1 Real Life Graphs

Half Term 4
SP4.3 Probability Combined Events
A1.7 Solving Complex Equations
A1.8 Solving Equations with Brackets
N6.1 Understanding Ratios
N6.2 Sharing in a Ratio
N7.4 Index Notation

Half Term 5
N6.3 Proportional Quantities
GM1.9 Scale Drawing
A4.1 Trial and Improvement

Half Term 6
GM5.6 Enlargement
A2.4 Special Sequences
GM6.3 Volume/SA Cuboids
N5.4 Percentage Increase/Decrease
GM6.4 2D repr. of 3D Shapes
SP1.4/2.5 Grouped Frequency Tables

Year 9

HIGHER

Half Term 1
GM3.4 Area of Circles
N2.6 Writing in Standard Form
A1.9 Simplify Harder Expressions
GM3.5 Pythagoras Theorem
A4.2 Linear Inequalities
N5.5 Percentage Change
N5.6 Reverse Percentages

Half Term 2
GM2.8 Angles in Polygons
GM5.7 Similarity
GM5.8 Trigonometry

Half Term 3
A2.5 Quadratic Sequences
A3.4 Plot Quadratic/Cubic Graphs
GM6.5 Prisms
GM1.10 Compound Units
N6.4 Constant of Proportionality

Half Term 4
A4.3 Sim Equations by Substitution
A4.4 Sim Equations by Elimination
A4.5 Sim Equations with Graphs
N3.6 Approximating
N3.7 Limits of Accuracy
GM4.4 Loci
N6.5 Inverse Proportion

Half Term 5
A1.10 Using Complex Formulae
SP1.5 Inter-Quartile Range
SP4.4 Estimating Probability
N7.6 Rules of Indices
N2.7 Calculating with Standard Form

Half Term 6
A3.6 Quadratic Functions
A5.1 Factorising Quadratics

FOUNDATION

Half Term 1

A1.3 Combining Variables
SP3.1 Collecting Data
SP1.2 Mean, Mode, Median, Range
N4.3 Multiplying Fractions
N7.3 Divisibility Tests

Half Term 2

GM4.2 Constructions with Protractors
GM2.4 Rotational Symmetry
GM2.6 Types of Quadrilateral
GM6.1 Properties of 3D Shapes
A3.1 Real Life Graphs
GM1.8 Bearings

Half Term 3

A1.4 Working with Formulae
A1.5 Solving Equations
A1.6 Using Brackets
SP1.2 Single Event Probability
N6.1 Understanding Ratio

Half Term 4

N2.5 Using Number System Effectively
GM5.5 Rotation
N7.4 Index Notation
A2.3 Linear Sequences
SP2.2 Stem and Leaf Diagrams
GM3.2 Area and Perimeter

Half Term 5

GM6.2 Understanding Nets
A4.1 Trial and Improvement
N3.4 Rounding to Decimal Places
N5.3 Converting FDP
GM6.3 Vol/SA of Cuboids

Half Term 6

A3.2 Plotting Linear Functions
SP3.2 Designing Questionnaires
SP2.6 Scatter Diagrams
GM3.3 Circumference
N1.8 Multiplying Decimals
N1.9 Dividing Decimals

FOUNDATION

Half Term 1

GM3.3 Circumference
N1.8 Multiplying Decimals
N1.9 Dividing Decimals
A1.7 Solving Complex Equations
A1.8 Solving Equations with Brackets

Half Term 2

GM3.4 Area of Circles
N5.4 Percentage Increase/Decrease
GM2.7 Angles in Parallel Lines
A2.4 Special Sequences

Half Term 3

GM1.7 Metric/Imperial Conversions
N6.3 Proportional Quantities
GM5.6 Enlargement
A3.3 Equations of Straight Lines
N4.4 Add/Subtract Fractions
GM6.4 2D Repr. Of 3D Shapes

Half Term 4

A4.2 Linear Inequalities
N6.2 Sharing in a Ratio
GM4.3 Constructions with a Compass
GM1.9 Scale Drawings
GM5.4 Reflection
A1.9 Simplifying Harder Expressions

Half Term 5

SP4.3 Probability Combined Events
N4.5 Working with Mixed Numbers
N4.6 Dividing Fractions
N2.6 Writing in Standard Form

Half Term 6

Revision and Review

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

Key Stage 3 is the first 3 years of a 5-year curriculum of which the last 2 years are GCSE Maths.
GCSE Maths content builds on all the skills learnt in Key Stage 3.

Science

Director of Learning: Miss S Hazelby

Subject Leaders: Biology - Miss S Hazelby, Chemistry - Mr P So, Physics - Mr P Gray

Head of KS3 Science: Mr J Barradell

Curriculum Intent:
To ensure pupils maintain and develop their curiosity and excitement about the natural world
To develop all to be `scientists` by embedding a culture of confidence and mastery underpinned by scientific enquiry
To develop their ability to see connections between science subject areas and become aware of some of the big ideas for understanding the world
To provide a high challenge, high quality science education for all our learners

Year 7	Year 8	Year 9
Core knowledge: **Term 1** • Biology: Cells and microscopes, structure and body systems. • Chemistry: Elements and the particle theory. • Physics: Introduction to energy. **Term 2** • Biology: Photosynthesis and respiration. • Chemistry: Compounds and mixtures, separating techniques. • Physics: Forces. **Term 3** • Biology: Food chains and food webs. • Chemistry: Acids and bases and simple chemical reactions. • Physics: Electricity and magnetism.	**Core knowledge:** **Term 1** • Biology: Health and lifestyle. • Chemistry: The Periodic table. • Physics: Waves, sound and light. **Term 2** • Biology: Reproduction. • Chemistry: Reactions of metals and The Earth. • Physics: Motion and Pressure. **Term 3** • Biology: Adaptation and inheritance. • Chemistry: Metals and materials. • Physics: Energy and Space.	**Core knowledge:** **Term 1** • Biology: Cell structure and function. Using microscopes. Introduction to DNA. • Chemistry: Atomic structure, particles and the periodic table. • Physics: Energy, changes of state, the particle model and space. **Term 2** • Biology: Protein synthesis and enzymes. • Chemistry: Purity and separation of chemicals. • Physics: Magnetism and Electricity. <u>Term 3</u> • Biology: Respiration and Photosynthesis. • Chemistry: Metals, Recycling and the Atmosphere • Physics: Motion.
Procedural knowledge (how to): • Select, plan, and carry out the most appropriate scientific enquiries to test predictions. • Identify independent, dependent and control variables. • Use appropriate techniques, apparatus and materials during field work and lab work, paying attention to health and safety • Pay attention to objectivity and concern for accuracy, precision, repeatability, reproducibility • Explain data in relation to predictions and hypotheses	**Procedural knowledge (how to):** • Select, plan, and carry out the most appropriate scientific enquiries to test predictions. • Identify independent, dependent and control variables. • Use appropriate techniques, apparatus and materials during field work and lab work, paying attention to health and safety • Pay attention to objectivity and concern for accuracy, precision, repeatability, reproducibility • Explain data in relation to predictions and hypotheses	**Procedural knowledge (how to):** • Select, plan, and carry out the most appropriate scientific enquiries to test predictions. • Identify independent, dependent and control variables. • Use appropriate techniques, apparatus and materials during field work and lab work, paying attention to health and safety • Pay attention to objectivity and concern for accuracy, precision, repeatability, reproducibility • Explain data in relation to predictions and hypotheses

• Understand that scientific theories are modified to take account of new evidence • Understand importance of publishing results and peer review **Assessment:** • Unit test x 10 • TSAT exam x 2 **Homework:** • Glossary activity x 10 • Kerboodle Unit quiz x 10 **Links to careers and personal development include:** • Enabling pupils to recognise risks to their own wellbeing · • Social development: Practice using a range of social skills in different situations • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships	• Understand that scientific theories are modified to take account of new evidence • Understand importance of publishing results and peer review **Assessment:** • Unit test x 10 • TSAT exam x 2 **Homework:** • Glossary activity x 10 • Kerboodle Unit quiz x 10 **Links to careers and personal development include:** • Enabling pupils to recognise risks to their own wellbeing · • Social development: Practice using a range of social skills in different situations · • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships	• Understand that scientific theories are modified to take account of new evidence • Understand importance of publishing results and peer review **Assessment:** • Unit tests x 7 • TSAT exam x2 **Homework:** • Kerboodle Unit quiz x 18 • Revision for tests **Links to careers and personal development include:** • Enabling pupils to recognise risks to their own wellbeing • Character: Reflect Wisely, learn eagerly, behave with integrity, cooperate · • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

The science curriculum is spiral. Every topic is revisited and built upon. All ultimate knowledge from one year or key stage becomes the proximal knowledge for the next year or key stage.

History

Subject Leader: Miss R Lewis

Curriculum Intent:

1. To provide pupils with critical skills of analysis and evaluation, not simply to study the past, but also to deal with the world around them.
2. To provide pupils with a sense of how the past has shaped the world they are growing up in, locally, nationally and globally.

Year 7	Year 8	Year 9
Core knowledge: Empires over time: • An ancient empire: The Roman Empire **(Half Terms 1 and 2)** • A medieval empire: The Islamic Empire **(Half Term 2 and 3)** • A modern empire: The British Empire **(Half Terms 3 and 4)** • The Fight for Power in Britain from 1066 to present **(Half terms 5 and 6)**	**Core knowledge:** • The Transatlantic Slave Trade **(Term 1)** • Edwardian Britain **(Term 2)** • The First World War **(Term 3)**	**Core knowledge:** • The inter-war years including the rise of Hitler in Germany **(Half Term 1)** • The Second World War **(Half Term 1 & 2)** • The Holocaust **(Half Term 3)** • The Cold War **(Half Term 4 & 5)** • Civil Rights in the USA and South Africa **(Half Term 6)**
Procedural knowledge (how to): • Make inferences from contemporary sources. • Explain why events happened and the impact of an event (causation and consequence). • Using historical evidence to support an argument. • Make comparisons and connections (similarity and difference). • Recognise historical interpretation and the methods used by historians to give a certain impression about the past.	**Procedural knowledge (how to):** • Assess the reliability and purpose of contemporary sources. • Use contemporary sources to support/ challenge a historical argument. • Evaluate change over time. • Explain why events happened (causation). • Describe the key features of historical events/ periods. • Recognise and compare historical interpretations. • Understand why historical interpretations have changed over time.	**Procedural knowledge (how to):** • Explain why events happened (causation). • Recognise and compare historical interpretations. • Understand why historical interpretations have changed over time. • Make inferences from contemporary sources. • Make comparisons and connections (similarity and difference).
Assessment: • Assessment 1: On the Roman Empire This will assess: chronological understanding; knowledge retention; making inferences from sources; and explanation/ causation. • Assessment 2: On the Islamic and British Empires and Fight for Power. This will assess: knowledge retention, chronological understanding; explanation/ consequence; use of historical evidence; making inferences from sources; and identifying methods used by historians.	**Assessment:** • Assessment 1: On aspects of Year 7 learning, plus the Transatlantic Slave Trade. This will assess: knowledge retention; description skills; ability to create a historically valid argument. • Assessment 2: Fight for Power, Slavery and Edwardian Britain. This will assess: knowledge retention, chronological understanding/ change over time; knowledge retention; explanation/ causation; use of contemporary sources to support/ challenge viewpoints.	**Assessment:** • Assessment 1: On aspects of Year 7/ Year 8 content, including the First World War; the Rise of Hitler; and the Second World War. This will assess: knowledge retention; making inferences from sources; comparison of interpretations and understanding of why they differ; explanation/ causation. • Assessment 2: On aspects of Year 7/ Year 8 learning; the Holocaust; the Cold War; and US Civil Rights. This will assess: description skills; explanation / consequence; making inferences from sources; and how historical interpretations are shaped by context.

Links to careers and personal development include: • British Values: Democracy, individual liberty, rule of law, mutual respect and tolerance. • Promoting inclusivity and diversity of all protected characteristics. • Prepare learners for future success in education, employment and training. • Moral development: Recognise the difference between right and wrong Cultural development: Understanding the wide range of cultural influences that shape individuals.	**Links to careers and personal development include:** • British Values: Democracy, individual liberty, rule of law, mutual respect and tolerance. • Promoting inclusivity and diversity of all protected characteristics. • Prepare learners for future success in education, employment and training • Moral development: Recognise the difference between right and wrong • Cultural development: Understanding the wide range of cultural influences that shape individuals.	**Links to careers and personal development include:** • British Values: Democracy, individual liberty, rule of law, mutual respect and tolerance. • Promoting inclusivity and diversity of all protected characteristics. • Prepare learners for future success in education, employment and training. • Moral development: Recognise the difference between right and wrong. • Cultural development: Understanding the wide range of cultural influences that shape individuals.

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

For those pupils choosing to study History, there is an opportunity to deepen their engagement with impact the Norman Conquest had on society (Year 7, Fight for Power), tensions within the heart of The Making of America (Year 8 Transatlantic Slavery), Life in Nazi Germany (Year 9 Interwar Years and The Holocaust). The understanding of change and continuity over time, developed in our Y7 thematic studies (Empires and Fight for Power) are developed further in our GCSE unit Public Health 1250-2000. The contemporary source developed during KS3 are enhanced through our GCSE unit Life in Nazi Germany and the analysis of interpretations is developed further in our GCSE unit Norman Conquest.

Geography

Subject Leaders: Mr E Twigg (KS3), Mrs S Walker (KS4 and KS5)

Curriculum Intent:

- **Geographers are the heroes of tomorrow;** they are engaged by the study of planet Earth and learn how to creatively solve problems for a sustainable future.
- **Geographers are critical thinkers;** they apply their knowledge and understanding to the human and natural world appreciating the interconnectedness between different systems.
- **Geographers are global citizens;** they understand their own place in the world but can also think with empathy to consider the attitudes and values of other stakeholders too.
- **Geographers enjoy learning beyond the classroom;** they undertake fieldwork to test the theories of our subject and gain first-hand experience of geography in action.

Year 7	Year 8	Year 9
Core knowledge: • Fantastic places – continents, oceans and an introduction to geographical concepts covered in KS3. The concept of Place and Space including local fieldwork on perception of place. **(Half Terms 1-2)** • Geography of the UK – The human and physical factors influencing place making and population distribution. Recent challenges the UK has faced and the sustainable solutions. **(Half Term 3)** • Global Climate Zones – how and why do climates change from the equator to the poles? **(Half Term 4)** • Tropical Rainforests –Interdependence and systems within ecosystems with a focus on rainforest adaptations, people and sustainable management in the DRC. **(Half Terms 5-6)**	**Core knowledge:** • Tectonic hazards – Seismic and Volcanic. With case studies of Nyiragongo (DRC) Cumbre Vieja (La Palma) and Tohoku (Japan) **(Half Terms 1-2)** • Dynamic Population – The world's ever changing and moving populations. A focus on China and its population policies and challenges. **(Half-Terms 2-3)** • Climate Crisis – The enhanced greenhouse effect, causes – impacts – mitigation. **(Half Terms 3-4)** • Rivers and Flooding – Geomorphic processes and the impact on the landscape. Including fieldwork on the River Porter. **(Half Terms 5-6)**	**Core knowledge:** • Development – How do countries develop and how do we measure development? What inequalities occur within countries and cities. Fieldwork based on inequality in Sheffield. **(Half Terms 1-2)** • Climatic Hazards – The formation and location of Tropical Storms and Droughts. Case studies of Idai (Mozambique) and Ian (USA) and the Sahel. **(Half Terms 2-3)** • The Geography of Conflict – What physical, human and political geography causes conflict? Case studies of Palestine and Israel, Syria, Ukraine and Russia and DRC. **(Half Terms 3-4)** • Frozen Planet – How Ice shapes our planet, the impact of climate changes on ice and the UK. **(Half Terms 4-5)** • Global issues – current global issues and sustainable solutions from plastic in oceans to ewaste in the DRC. **(Half Term 6)**
Procedural knowledge (how to): • Use and analyse a range of different types of maps at different scales. • Use the geographical skills of 4 and 6 Figure grid references. Recognising contour patterns. Using compass directions and scale. • Analyse geographic data and perform simple mathematical processes. • Read and understand geographical texts. • Assess current sustainability issues. • Carry out geographical investigations using the 'route to enquiry'.	**Procedural knowledge (how to):** • Use and analyse a range of different types of map at different scales. • Use the geographical skills of 4 and 6 Figure grid references. Recognising contour patterns. Using compass directions and scale. • Analyse geographic data and perform simple mathematical processes. • Find trends and patterns in graphs and GIS map data. • Read and understand geographical texts. • Assess current sustainability issues and determine future challenges. • Carry out geographical investigations using the 'route to enquiry'.	**Procedural knowledge (how to):** • Use and analyse a range of different types of map at different scales. • Use the geographical skills of 4 and 6 Figure grid references. Recognising contour patterns. Using compass directions and scale. • Analyse geographic data and perform simple mathematical processes. • Find trends and patterns in graphs and GIS map data. • Read and understand geographical texts. • Assess current sustainability issues and determine future challenges. • Carry out geographical investigations using the 'route to enquiry'.

Assessment: • 'Geog your memory' retrieval practice starters. • Verbal questioning in lessons. • Written extended answers within lesson that are peer and self-assessed with live teacher feedback. • Two formal assessments. **Links to careers and personal development include:** • The topics studied in Year 7 may inspire pupils to investigate a range of careers spanning the physical, social and environmental sciences. Examples are given in lessons. • In particular, the study of geography will help with pupils' cultural development. Understanding the wide range of cultural influences that shape individuals and different places.	**Assessment:** • 'Geog your memory' retrieval practice starter. • Verbal questioning in lessons. • Written extended answers within lesson that are peer and self-assessed with live teacher feedback. • Two formal assessments. **Links to careers and personal development include:** • The topics studied in Year 8 may inspire pupils to investigate a range of careers spanning the physical, social and environmental sciences. Examples are given in lessons. • In particular, the study of geography will help with pupils' cultural development. Understanding the wide range of cultural influences that shape individuals and different places.	**Assessment:** • 'Geog your memory' retrieval practice starters. • Verbal questioning in lessons. • Written extended answers within lesson that are peer and self-assessed with live teacher feedback. • Two formal assessments. **Links to careers and personal development include:** • The topics studied in Year 9 may inspire pupils to investigate a range of careers spanning the physical, social and environmental sciences. Examples are given in lessons. • In particular, the study of geography will help with pupils' cultural development. Understanding the wide range of cultural influences that shape individuals and different places.

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

KS3 Geography provides an excellent foundation for the study of KS4 geography. Similar topics, such as ecosystems, the geography of the UK and development are revisited during the GCSE course where the knowledge gained at KS3 can be further developed. Similarly, the skills and procedural knowledge developed during KS3 makes sure pupils can access the learning at KS4 and are ready for the increased challenge of studying at GCSE.

At KS4, new topics such as Geology of the UK and Sustainable Energy use will be taught together with fieldwork opportunities to take part in learning outside of the classroom.

Modern Foreign Languages (MFL)

Director of Learning: Miss S Leach

Curriculum Intent:
At Forge Valley School we are passionate about the skills and benefits learning a language can bring and we believe that all pupils, regardless of their background, should be encouraged to love learning languages.
Learning a Modern Foreign Languages enables pupils to not only study a second language, but it broadens horizons and affords our pupils a greater understanding of the global world in which we live. Through learning a language, it is our ambition to develop a range of skills, increase our pupils' confidence in their own ability and build their social capital.
Pupils are taught to understand and respond to spoken and written language, through an engaging curriculum and a range of authentic materials. Pupils are encouraged to speak with increasing confidence and spontaneity through pair work, whole class discussion, the asking and answering of questions and the opportunity to work with our Foreign Language Assistant. Pupils are encouraged to write at varying lengths from short sentences to longer paragraphs, incorporating the vocabulary and grammatical structures that they have learnt.
Pupils arrive at secondary school with a varied experience of primary MFL learning. Our aim is to build on and consolidate prior knowledge to ensure that all learners make the required progress throughout Year 7 and beyond. Our curriculum is designed to build on the skills and content delivered from Year 7 through to Key Stage 5.
Furthermore, we endeavour to provide opportunities for pupils to understand and explore the cultural aspects of the language they study. We offer this through study trips abroad, opportunities to work with the Foreign Language Assistant and the incorporation of cultural elements in our curriculum.
For our most able linguists, we aim to afford them with a clear pathway to becoming successful lifelong linguists through showing them the benefits languages can bring and by supporting their progression beyond Key Stage 5.

Year 7	Year 8	Year 9
Core knowledge: Listening, reading, writing, speaking and translation skills developed throughout Year 7. **Half Term 1** – Phonics, alphabet, greetings, numbers, ages/birthdays, months, gender, singular/plural nouns, connectives, key verbs **Half Term 2** – Animals, colours, opinions physical and character descriptions, family, relationships, jobs, negative structures, adjectival agreement, key verbs **Half Term 3 and 4** – school subjects, opinions, time/timetable, languages spoken, classroom activities, describing teachers, giving justified opinions, present tense conjugations **Half Term 5** – Free-time, hobbies, sports, near future tense, expressions + infinitive verbs, revisit of opinions and justifications. **Half Term 6** – Phonics recap, Miró art project – prepositions, TV, music, film, instruments, favourite singers and actors, revisit of opinions and justifications, 2 tenses together	**Core knowledge:** Listening, reading, writing, speaking and translation skills continue to be developed throughout Year 8. **Half Term 1** – countries, homes, rooms, objects in rooms, prepositions, activities in the home, daily routine, ideal house, revisit of present tense, the conditional tense **Half Term 2** - Compass points, locations, types of town and descriptions, places in town, past tense formation, ideal town, conditional tense, shopping, clothes, Barcelona and 'you can' **Half Term 3/4** – Countries, destinations, past tense, holidays activities, transport, weather accommodation, holiday problems, booking hotels **Half Term 5** – Types of food, cuisine, mealtimes, perfect/imperfect tenses, restaurants, menus, market visit, booking restaurants, healthy lifestyles **Half Term 6** - Parts of body and face, illnesses and injuries, desde hace' (how long) remedies, doctor/pharmacy visits, healthy living, sports and fitness, advice, 3 tenses together	**Core knowledge:** Listening, reading, writing, speaking and translation skills continue to be developed throughout Year 9. **Half Term 1** – Talking about yourself and family, physical and personality descriptions, present tense, relationships, friendships, relationships and marriage, superlative, comparative. **Half Term 2** – modern technology, apps, social media, para + infinitive, radical changing verbs, present continuous tense **Half Term 3/4** – sports and free time, arranging to go out, role models, cinema & TV, suelo + infinitive **Half Term 5** – Cultural food, revision of eating out, music **Half Term 6** – Festivals, special weekend away, antes de/ después de + infinitive, reflective verbs

Procedural knowledge (how to): Grammatical terminology such as 'infinitive', 'tenses' etc are explicitly taught and referred to throughout the KS3 course. Assessment rubrics are explained and referred to frequently throughout the KS3 course. Pupils arrive at secondary school with a varied experience of primary MFL learning. Our aim is to build on and consolidate prior knowledge to ensure that all learners make the required progress throughout Year 7 and beyond. Throughout Year 7 pupils progress from learning single lexical items to using and understanding them in full sentences and longer passages. Pupils are introduced to the present and future time frames, as well as gaining an understanding of basic grammatical concepts, such as adjectival agreement etc. Due to the nature of the spiral curriculum in MFL, vocabulary and key grammatical structures are revisited frequently. **Assessment:** Assessment Point 1 – January Reading and translation All topics covered so far Assessment Point 2 – May Listening and writing All topics covered so far In addition to the two assessment points, throughout the Year 7 course pupils are assessed through a variety of low-stakes vocabulary quizzes in lessons and have longer key pieces of writing marked, which they have the opportunity to improve. **Homework:** The purpose of homework set in MFL is to consolidate the learning that happens in the classroom, we focus on the 'over-learning' and mastery of key vocabulary. In the MFL department pupils are set a weekly homework by email. They are emailed a link to Blooket, a vocabulary learning website, that quizzes them on the key items of vocabulary for that half term.	**Procedural knowledge (how to):** Grammatical terminology such as 'infinitive', 'tenses' etc are explicitly taught and referred to throughout the KS3 course. Assessment rubrics are explained and referred to frequently throughout the KS3 course. The Year 8 course seeks to build upon the knowledge and skills acquired in Year 7. Due to the spiral nature of the curriculum, all skills and grammatical concepts covered in Year 7 are revisited and practised, for example giving justified opinions, using adjectival agreement, use of the present, conditional and near future tenses. In Year 8, pupils are now introduced to the past time frame (perfect/ imperfect). Our aim is to continue to build on and consolidate pupils' linguistic skills and enhance their cultural capital to ensure that all learners make the required progress throughout Year 8 and beyond. Throughout Year 8 pupils develop their skills to be able to use, understand and produce increasingly longer sentences and passages. **Assessment:** Assessment Point 1 – November Reading and translation All topics covered so far in Year 7/Year 8 Assessment Point 2 – May Listening and writing All topics covered so far in Year 7/Year 8 In addition to the two assessment points, throughout the Year 7 course pupils are assessed through a variety of low-stakes vocabulary quizzes in lessons and have longer key pieces of writing marked, which they have the opportunity to improve. **Homework:** The purpose of homework set in MFL is to consolidate the learning that happens in the classroom, we focus on the 'over-learning' and mastery of key vocabulary. In the MFL department pupils are set a weekly homework by email. They are emailed a link to Blooket, a vocabulary learning website, that quizzes them on the key items of vocabulary for that half term.	**Procedural knowledge (how to):** Grammatical terminology such as 'infinitive', 'tenses' etc are explicitly taught and referred to throughout the KS3 course. Assessment rubrics are explained and referred to frequently throughout the KS3 course. The Year 9 course builds upon the knowledge and skills acquired throughout KS3. Due to the spiral nature of the curriculum, all skills and grammatical concepts covered in Year 7 and Year 8 are revisited and practised, for example giving justified opinions, using adjectival agreement, consolidating and applying a range of tenses correctly. Our objective is not only to enrich pupils' linguistic capabilities, but also to provide them with a solid foundation to begin the GCSE course in Year 10. As in Year 7 and Year 8, the curriculum also builds pupils' cultural capital and knowledge of the TL-speaking countries. Throughout Year 9 pupils perfect their skills to be able to comprehend a wide range of texts in the target language and be able to produce extended responses, both written and verbal. **Assessment:** Assessment Point 1 – November Reading and translation All topics covered so far in Year 7-Year 9 Assessment Point 2 – June Listening and writing All topics covered so far in Year 7-Year 9 In addition to the two assessment points, throughout the Year 7 course pupils are assessed through a variety of low-stakes vocabulary quizzes in lessons and have longer key pieces of writing marked, which they have the opportunity to improve. **Homework:** The purpose of homework set in MFL is to consolidate the learning that happens in the classroom, we focus on the 'over-learning' and mastery of key vocabulary. In the MFL department pupils are set a weekly homework by email. They are emailed a link to Blooket, a vocabulary learning website, that quizzes them on the key items of vocabulary for that half term.

Links to careers and personal development include: • Mutual respect and tolerance – pupils build their cultural capital and learn to respect other cultures and tolerate different ways of life. • Character – Resilience is needed to prosper in MFL. • Moral and social development – Pupils work in pairs and groups and learn to respect each other's ideas and opinions. • Cultural development – Cultural capital is the currency of MFL.	**Links to careers and personal development include:** • Confidence, Resilience and Knowledge – As pupils skills develop, they are more able to embrace challenges, realising that their mistakes are part of the learning process and must be used to inform. • Wellbeing – The summer term of the Y8 course looks at healthy eating and wellbeing. • Mutual respect and tolerance – pupils build their cultural capital and learn to respect other cultures and tolerate different ways of life. • Character – Resilience is needed to prosper in MFL. • Moral and social development – Pupils work in pairs and groups and learn to respect each other's ideas and opinions.	**Links to careers and personal development include:** • Preparation for future success – Teaching and learning focuses on preparing pupils for the demands of KS4 and how to achieve success on the GCSE course. • Wellbeing – The autumn term of the Year 9 course looks at relationships, friendships and wellbeing and we return to the topic of healthy lifestyles • Confidence, Resilience and Knowledge – As pupils skills develop, they are more able to embrace challenges, realising that their mistakes are part of the learning process and must be used to inform. • Mutual respect and tolerance – pupils build their cultural capital and learn to respect other cultures and tolerate different ways of life. • Character – Resilience is needed to prosper in MFL. • Moral and social development – Pupils work in pairs and groups and learn to respect each other's ideas and opinions

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

In terms of core knowledge, the GCSE course in MFL builds upon the vocabulary and grammar that pupils have acquired at KS3. The topics covered at GCSE are detailed below:

- Theme 1 – Identity and culture (Me, my family and friends, technology in everyday life, free time activities, customs and festivals).
- Theme 2 – Local, national, international and global areas of interest (home, town, neighbourhood and region, social issues, global issues, travel and tourism).
- Theme 3 – Current and future study and employment (My studies, life at school and college, education post-16, jobs, career choices and ambitions.

In terms of procedural knowledge, the GCSE course consolidates the skills of listening, speaking, reading and writing and allows pupils to develop and apply these skills at a higher level.

Pupils also have the opportunity to practise their speaking skills in small group lessons with our Foreign Language Assistant.

Religion, Philosophy and Ethics

Subject Leader: Ms S Devine

Curriculum Intent:
Through KS3 and KS4 RS in Forge Valley we strive to develop in all pupils a knowledge and understanding of religious and non-religious worldviews to foster a greater appreciation of the rich, culturally and religiously diverse world in which we live. We aim to support pupils in developing their own spiritual, moral and social awareness by increasing their understanding of the complex issues and challenges faced by people from all walks of life within their own city and beyond. It is our ambition that pupils leave Forge Valley School with a greater understanding of their own place within society, both local and global.
Our pupils will learn key beliefs from major world religions, with particular focus on the main religious tradition of the country in order to reflect on the historical context of Great Britain. We will foster a culture of critical enquiry and analysis through the study and evaluation of textual and other sources. Our ultimate goal is to create and nurture an intellectual curiosity in pupils to develop a love of learning and an understanding of the role of the subject within the curriculum.

Year 7	Year 8	Year 9

Core knowledge:
Term 1
• What are worldviews and what are the similarities and differences between religious and non-religious worldviews?
• What religions are represented in Sheffield and how and why has the population changed over time?
Term 2
• What evidence is there for and against the existence of God?
Term 3
• Why do people have faith in God? (Using examples from the Old Testament to support this question)
 	
Procedural knowledge (how to):
• Data analysis
• Understanding and interpreting religious texts - Theological lens
• Analysing the impact of beliefs on behaviour -Social Sciences, Philosophical and Theological lenses
• Understanding the difference between scientific, theological and philosophical enquiry.
 	
Assessment:
• 'Do Now' retrieval practice starters
• Verbal questioning in lessons
• Key word tests
• Two formal assessments
	Core knowledge:
	Term 1
	• What is philosophy?
	• The concepts of knowledge, truth and illusion.
	• Different ethical theories and how to apply them to situations
	Term 2
	• What is religion?
	  ○ Is it beliefs?
	  ○ Is it people?
	  ○ Is it places?
	  ○ Is it rules?
	Term 3
	• Is religion compatible with the modern world?
	
	Procedural knowledge (how to):
	• Understanding and interpreting religious texts - Theological lens
	• Analysing the impact of beliefs on behaviour -Social Sciences, Philosophical and Theological lenses.
	
	Assessment:
	• 'Do Now' retrieval practice starters
	• Verbal questioning in lessons
	• Key word tests
	• Two formal assessments
		Core knowledge:
		Term 1
		• Theories around the existence of God
		• The lives of the Buddha and Jesus and how these influence Buddhists and Christians
		Term 2
		• Christian and scientific theories on origin and purpose
		• How do Buddhists and Christians make ethical decisions?
		Term 3
		• Religious and Non-religious views on the treatment of animals.
		• Religious and Non-religious views on the treatment of criminals.
		
		Procedural knowledge (how to):
		• Understanding and interpreting religious texts - theological lens
		• Analysing the impact of beliefs on behaviour -Social Sciences, Philosophical and Theological lenses
		
		Assessment:
		• 'Do Now' retrieval practice starters
		• Verbal questioning in lessons
		• Key word tests
		• Two formal assessments
		
		Homework:
		• Deliberate practice of exam style questions

Links to careers and personal development include: • Develop character, reflect wisely, learn eagerly, behave with integrity and cooperate • Promote inclusivity and diversity • Prepare for future success in education employment and training • Reflect on own beliefs and spiritual development. • Recognising the difference between right and wrong • Practice a range of social skills • Understand a wide range of cultural influences.	**Links to careers and personal development include:** • Develop character, reflect wisely, learn eagerly, behave with integrity and cooperate • Promote inclusivity and diversity • Prepare for future success in education employment and training • Reflect on own beliefs and spiritual development. • Recognising the difference between right and wrong • Practice a range of social skills • Understand a wide range of cultural influences.	**Links to careers and personal development include:** • Develop character, reflect wisely, learn eagerly, behave with integrity and cooperate • Promote inclusivity and diversity • Prepare for future success in education employment and training • Reflect on own beliefs and spiritual development. • Recognising the difference between right and wrong • Practice a range of social skills • Understand a wide range of cultural influences.

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

In year 10 and 11 all pupils will complete the AQA GCSE course. This includes detailed study of specific beliefs, teaching and practices of two world religions alongside study of religious, philosophical and ethical studies. This is assessed through 100% exam at the end of Year 11 and supports extended, analytical reading and writing skills across the curriculum.

Performing Arts and Music

Subject Leaders: Miss L Brown and Miss G Travers

Curriculum Intent: Music enriches all of our lives every day and we at Tapton Academy Trust view it as an invaluable subject to offer to all at Key Stage 3. Music provides opportunities for pupils to express themselves, build confidence, persevere over long periods of time to master complex skills, develop an understanding of the world, and build their own cultural capital. Music as a subject is not just one skill and it is unlike any other in terms of its scope and wide range of specialisms.

Music requires creativity, performance, mathematical analysis, aural skills, accomplished writing, an understanding of history and the ability to work independently as well as part of a team. Music teaches pupils how their one small part fits into the bigger picture to create something beautiful. Music teaches the discipline of methodically working at a skill over a prolonged period of time. Music releases endorphins and brings joy to both the performer and the listener. Music is accessible to all.

Finally, an active engagement in music is proven to improve pupils' academic achievements in all subjects. The most recent large-scale study into the effects of teenagers participating in music related activities between the ages of 12 and 18 (Peter Gouzouasis et al. 2019) found that "pupils who learned to play a musical instrument not only scored significantly higher, but were about one academic year ahead of their non-music peers with regards to their English, Maths and Science skills. These exam-based statistics were consistent across the board regardless of socioeconomic background, gender, ethnicity, or prior learning in English, maths or science."

Within Performing Arts, we aim:

- To provide a skill based spiral curriculum that builds on students' basic ability with a focus on skills, practitioners, a variety of theatrical genres and analytical skills.
- To create confident performers with a genuine understanding and passion for the subject; providing a strong foundation to study the subject beyond GCSE and A-level.
- To foster well rounded individuals with excellent communication skills to support any career they pursue.

Year 7	Year 8	Year 9
Core knowledge: Technical vocabulary linked to each of the musical elements in DR PATT SMITH – Dynamics, Rhythm, Pitch, Articulation, Tempo, Texture, Structure, Melody, Instrumentation, Tonality, Harmony, and the Four Cs in Drama-Confidence, Cooperation, Communication, Concentration. **Music: Stylistic features of:** - Blues & Jazz **(HT5)** - Folk **(HT2)** (link to Traditional Music in GCSE) - Musical Theatre **(HT4)** - Rap/Hip-Hop **(HT2)** (link to Pop Music in GCSE) - Western Classical Music linking to instruments of the orchestra **(HT3).** **Drama:** - Narration and vocal expression (**HT2)** - non-verbal communication skills **(HT1)** - role play **(HT2)** - musical theatre **(HT4)** - Shakespeare **(HT6).**	**Core knowledge:** Technical vocabulary linked to each of the musical elements in DR PATT SMITH – Dynamics, Rhythm, Pitch, Articulation, Tempo, Texture, Structure, Melody, Instrumentation, Tonality, Harmony, and the Four Cs in Drama-Confidence, Cooperation, Communication, Concentration. **Music: Stylistic features of:** -Western Classical Music (key composers) linking to a creative composition project **(HT2)** -Horror Film music **(HT3)** (link to Pop Music in GCSE) -Rock and Musical Theatre **(HT4)** (link to Pop Music in GCSE) -Minimalism **(HT5)** (link to Contemporary Western Classical in GCSE) -Traditional African music **(HT6)** (link to Traditional Music in GCSE) **Drama:** - Narration and vocal expression **(HT1/HT3)** - non-verbal communication skills **(HT6)** - musical theatre **(HT4/HT6)** - physical theatre **(HT1)** - Shakespeare **(HT1)** - Commedia Dell'Arte **(HT1)** - pantomime **(HT1)**	**Core knowledge:** Technical vocabulary linked to each of the musical elements in DR PATT SMITH – Dynamics, Rhythm, Pitch, Articulation, Tempo, Texture, Structure, Melody, Instrumentation, Tonality, Harmony, and the Four Cs in Drama-Confidence, Cooperation, Communication, Concentration. **Music: Stylistic features of:** -Traditional African, Indian, Reggae and Latin American **(HT1)** (link to Traditional Music in GCSE) -Musical Theatre **(HT3/HT4)** (link to Pop music in GCSE) -Baroque, Classical, and Romantic Music **(HT5/HT6)** (link to Western Classical Music in GCSE). **Drama:** - Narration and vocal expression **(HT2)** - non-verbal communication skills - musical theatre **(HT3/HT4)** - abstract theatre **(HT4)** - exploring Drama practitioners **(HT5/HT6).**

Procedural knowledge (how to): • Listen to music analytically and describe it using technical vocabulary • Develop strategies to support the reading of basic pitch and rhythm notation. • Perform as both a soloist and as part of an ensemble on a range of instruments/voice • Compose music following a given brief using a variety of methods. **Assessment:** • Knowledge retrieval starters • Pupil progress in practical skills is assessed formatively within lessons using the success criteria. Teacher verbal feedback is given throughout. • Pupils verbally peer assess performances at the end of the lesson. • 2 formal assessments each year (1 Music, 1 Drama) **Homework:** • Suggested listening throughout the year. **Links to careers and personal development include:** • Careers in performing and composition are discussed throughout different topics. • Pupils are encouraged to participate in our extra-curricular activities and events, such as Christmas Concert, Forge Fest, Presentation/Open Evenings, School Musical. There are options available to all pupils, regardless of prior experience.	**Procedural knowledge (how to):** • Listen to music analytically and describe it using technical vocabulary • Develop strategies to support the reading of basic pitch and rhythm notation. • Perform as both a soloist and as part of an ensemble on a range of instruments/voice • Compose music following a given brief based on specific styles/genres using a variety of methods. **Assessment:** • Knowledge retrieval starters • Pupil progress in practical skills is assessed formatively within lessons using the success criteria. Teacher verbal feedback is given throughout. • Pupils verbally peer assess performances at the end of the lesson. • 2 formal assessments each year (1 Music, 1 Drama) **Homework:** • Suggested listening throughout the year. **Links to careers and personal development include:** • Careers in performing and composition are discussed throughout different topics. • Pupils are encouraged to participate in our extra-curricular activities and events, such as Christmas Concert, Forge Fest, Presentation/Open Evenings, School Musical. There are options available to all pupils, regardless of prior experience.	**Procedural knowledge (how to):** • Listen to music analytically and describe it using technical vocabulary • Develop strategies to support the reading of basic pitch and rhythm notation. • Perform as both a soloist and as part of an ensemble on a range of instruments/voice • Compose music following a given brief based on specific styles/genres using a variety of methods. **Assessment:** • Knowledge retrieval starters • Pupil progress in practical skills is assessed formatively within lessons using the success criteria. Teacher verbal feedback is given throughout. • Pupils verbally peer assess performances at the end of the lesson. • 2 formal assessments each year (2 music, 2 drama which are averaged out) **Homework:** • Suggested listening throughout the year. **Links to careers and personal development include:** • Careers in performing and composition are discussed throughout different topics. • Pupils are encouraged to participate in our extra-curricular activities and events, such as Christmas Concert, Forge Fest, Presentation/Open Evenings, School Musical. There are options available to all pupils, regardless of prior experience.

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

In KS4, pupils continue to build upon their skills in the three areas of listening, performing, and composing. They will focus on one instrument/voice to produce their work. Pupils will continue to learn about music from all of the following three areas of study: Western Classical Music, Popular Music, and Traditional Music.

Art and Design

Subject Leader: Ms S Wardle

Curriculum Intent: Engaging with an art curriculum enables pupils to broaden their horizons and offers them a greater understanding of the world in which we live. Pupils are taught to develop a broad range of skills and techniques allowing them to engage with artists, concepts, issues and build cultural capital.

Pupils are encouraged to record, refine, develop and respond to design briefs allowing them to build confidence and creativity. Written work encourages the use of key terminology, analysis, evaluation and self-critique along with contextual writing in reference to artists.

We endeavour to provide opportunities to understand and explore a wider art and design culture through the introduction of a broad range of current and past artists, traditions and cultures, gallery visits and the experience of working with outside agencies such as Museums Sheffield and The Big Draw.

We are passionate about supporting and leading our pupils with their own style and creativity to become life-long practitioners with the skills to communicate effectively in a range of media. We believe that all pupils should have the opportunity to engage with the Arts and develop cultural and creative understanding and abilities.

Year 7	Year 8	Year 9
Core knowledge: • Introduction of the formal elements; line, tone, form, shape, colour, texture through the exploration of natural forms, landscape and wider cultural art and artefacts. • Expanding knowledge of the history of art and contextual understanding of artistic movements such as Realism, Impressionism & Expressionism. • Exploring the work and style of artists, including William Morris, Matisse, Georgia O'Keeffe, Van Gogh, Monet and David Hockney. • Analysing how art from a range of cultures can portray tradition and symbolism, specifically focusing on Non-Western masks.	**Core knowledge:** • Development of the formal elements; line, tone, form, shape, colour, texture and pattern through the observation of primary source objects associated with Futurism, sculpture and the four seasons. • Exploring the artistic movements of Futurism, Modernism and Contemporary art, including the work of Anish Kapoor, Barbara Hepworth and Kan Yasuda, as well as textile artists Cas Holmes and Itchiku Kubota. • Expanding knowledge of the local area and heritage, as well as making links between a range of Yorkshire and British artists. • Developing organic and inorganic pattern work, identified from primary source objects, informed by artists; demonstrating the understanding of drop and repeat pattern and abstraction.	**Core knowledge:** • Development of the formal elements; line, tone, texture, scale, colour through primary and secondary observation work informing all projects. • Introduction of photography principles, including composition, light and basic editing. • Drawing principles and rules associated with perspective, scale, distance, proportion, and space, understanding and demonstrating how to draw accurately. Including One Point and Two Point perspective. • Analysing works of art in context, developing and expanding knowledge, empathy, historical and political understanding. • Exploring identity and portraiture through symbolism. Creating meaning and narrative. • Exploration into the work of contemporary, modern and canonised artists run throughout the whole year 9 course, this includes research into Annie Leibovitz, Edward Weston, Da Vinci, Duchamp, Gericault, Frida Kahlo, Kehinde Wiley and many more.

Procedural knowledge (how to): • Drawing skills from primary and secondary source using a range of media, including pencil and pen. • Synthesis of research to create design ideas. • Production of a ceramic piece inspired by a range of artists and organic forms, such as leaves. • Exploration of mark making and mixed media composition, using a range of marks and techniques identified in Van Gogh, Hockney and Monet landscapes. • Using Aerial perspective and scale in a landscape composition to create depth and distance. • Development of 3D modelling skills in card, leading to the production of a Non-Western mask. **Assessment:** • AO1: Research • AO2: Development • AO3: Recording • AO4: Final piece • AO5: Annotation Work is assessed for each assessment objective and pupils are given an overall percentage, relating to their learning, development, and skill for each individual project. **Homework:** • Homework in Art will be set once for every project, which equates to three times per year. It will be explained in lesson and can be downloaded via the school website. • The purpose of the homework set is to develop, consolidate, and refine skills taught in lessons, or support upcoming lessons. • The content will either focus on research, development, recording, personally responding or annotating work. • Homework should be completed to a high standard, mirroring the standard of work in lessons.	**Procedural knowledge (how to):** • Taking inspiration from Futurism and the local Steel Industry pupils explore pattern development and the purposeful use of colour, including complementary pairs, producing a final lino print pattern – Full drop repeat pattern • Inspired by organic forms, pupils explore how contemporary sculptors produce 2D design work and artwork which support sculptural pieces. Pupils work in the style of a range of artists, synthesising ideas to produce a 3D final piece. • Using the thumb pot techniques, pupils produce a ceramic sculpture. • Inspired by poetry from writers such as Emily Bronte and Robert Louis Stevenson, pupils explore textile processes such as hand embroidery, applique and batik to produce a composition illustrating their favourite season. **Assessment:** • AO1: Research • AO2: Development • AO3: Recording • AO4: Final piece • AO5: Annotation • Work is assessed for each assessment objective and pupils are given an overall percentage, relating to their learning, development, and skill for each individual project **Homework:** • Homework in Art will be set once for every project, which equates to three times per year. It will be explained in lesson and can be downloaded via the school website. • The purpose of the homework set is to develop, consolidate, and refine skills taught in lessons, or support upcoming lessons. • The content will either focus on research, development, recording, personally responding or annotating work. • Homework should be completed to a high standard, mirroring the standard of work in lessons.	**Procedural knowledge (how to):** • Exploring the work of a range of Portrait artists, pupils learn about proportion of the face, composition and how to portray character, personality and mood through a portrait. Pupils produce a final watercolour portrait. • Watercolour painting, colour mixing and layering is taught during the process of portrait painting. • Development of proportion and accuracy, using the gridding technique. • Photography, including landscape, portrait and close up skills are taught, developing composition and the use of the rule of thirds. • Exploring the proportions of the body and human form, pupils learn how to draw accurate figures and how to draw dynamic poses using foreshortening. These skills are then applied in the production of a ceramic figure. **Assessment:** • AO1: Research • AO2: Development • AO3: Recording • AO4: Final piece • AO5: Annotation • Work is assessed for each assessment objective and pupils are given an overall percentage, relating to their learning, development, and skill for each individual project **Homework:** • Homework in Art will be set once for every project, which equates to three times per year. It will be explained in lesson and can be downloaded via the school website. • The purpose of the homework set is to develop, consolidate, and refine skills taught in lessons, or support upcoming lessons. • The content will either focus on research, development, recording, personally responding or annotating work. • Homework should be completed to a high standard, mirroring the standard of work in lessons.

Links to careers and personal development include: • Confidence, Resilience and Knowledge • Cultural development • Dexterity • Problem-solving • Synthesis and idea-development • Understanding a wide range of cultural influences.	**Links to careers and personal development include:** • Confidence, Resilience and Knowledge • Cultural development • Accuracy • Fine-motor skills • Problem-solving • Synthesis and idea-development • Understanding a wide range of cultural influences.	**Links to careers and personal development include:** • Confidence, Resilience and Knowledge • Cultural development • Accuracy • Fine-motor skills • Problem-solving • Synthesis and idea-development • Personal identity • Understanding a wide range of cultural influences.

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

AQA Art and Design: Art, Design and Craft

Following the same assessment objectives, pupils continue to develop research, development, recording and personal response skills. Completing two coursework projects and a final exam, responding to a set brief from the exam board.

PE

Subject Leader: Mr J. Kerrison

Curriculum Intent: We believe that Physical Education is something that should be enjoyed and appreciated by all of our pupils. We recognise that we cannot instil a love for sport in every child and therefore aim to promote a passion for exercise and activity, and an understanding of its importance in relation to wellbeing. Our intention is to facilitate healthy and active lifestyles for all of our pupils - the benefits of which will hopefully be realised long after they leave Forge Valley School.
Our core aims are to develop transferable life skills within a safe environment through the vehicle of sport and physical activity. These skills include resilience, integrity, innovation, self-motivation, communication and teamwork, as well as developing an understanding of the benefits of exercise in relation to stress management, emotional wellbeing and physical health.
We have incorporated the 5 'MEs in PE' as a model that allows all pupils to engage, progress and succeed. Our PE aims will be delivered in line with these 5 MEs:
Each half term pupils will follow different sports and activities which will be used to allow a focus on improving their physical skills as well as developing one of the other MEs. Each lesson will therefore have a Physical ME objective and a Personal Development objective. For example, pupils may spend one half term undertaking basketball as an activity whilst focussing on Integrity as an aspect of 'Employable ME'. The additional focus aims to increase the value and relevance of core PE for pupils who may otherwise be disengaged.

Year 7	Year 8	Year 9
Core knowledge: • Invasion Games • Net/Racket Games • Striking and Fielding Games • Gymnastics • Dance • Athletics • Fitness **Procedural knowledge (how to):** • develop their skills, knowledge and understanding in PE • develop the ability to apply skills learnt in competitive situations • they are encouraged to work both independently and as part of a team • use a range of tactics and strategies to overcome opponents in direct competition • select and apply the appropriate strategy or technique to master an activity • develop their technique to improve their performance • analyse their performances compared to previous ones and demonstrate improvement to achieve their personal best	**Core knowledge:** • Invasion Games • Net/Racket Games • Striking and Fielding Games • Gymnastics • Dance • Athletics • Fitness **Procedural knowledge (how to):** • develop their skills, knowledge and understanding in PE • develop the ability to apply skills learnt in competitive situations • they are encouraged to work both independently and as part of a team. • use a range of tactics and strategies to overcome opponents in direct competition • select and apply the appropriate strategy or technique to master an activity • develop their technique to improve their performance • analyse their performances compared to previous ones and demonstrate improvement to achieve their personal best	**Core knowledge:** • Invasion Games • Net/Racket Games • Striking and Fielding Games • Gymnastics • Dance • Athletics • Fitness **Procedural knowledge (how to):** • develop their skills, knowledge and understanding in PE. • develop the ability to apply skills learnt in competitive situations. • they are encouraged to work both independently and as part of a team. • use a range of tactics and strategies to overcome opponents in direct competition. • select and apply the appropriate strategy or technique to master an activity. • develop their technique to improve their performance. • analyse their performances compared to previous ones and demonstrate improvement to achieve their personal best.

Assessment: • We informally assess during PE lessons using observation, question & answer, peer and teacher assessment. Pupils receive constant verbal feedback • Formal assessments take place twice a year, and our focus is on a pupil's behaviour, engagement and whether or not they are meeting Forge Valley expectations. **Homework:** • No formal homework is set in PE; however, we encourage all pupils to involve themselves in physical activity in their spare time and lead an active and healthy lifestyle • A range of extra-curricular activities are available before and after school and everyone is welcome to attend **Links to careers and personal development include:** • To develop the Forge Valley culture and become a valued member of the PE and School community • To understand how the development of physical skills through practical performance can contribute to the development of the whole person • Lead healthy active lives • Being physically active for sustained periods of time • Having the knowledge and understanding of the importance of fitness and health	**Assessment:** • We informally assess during PE lessons using observation, question & answer, peer and teacher assessment. Pupils receive constant verbal feedback • Formal assessments take place twice a year, and our focus is on a pupil's behaviour, engagement and whether or not they are meeting Forge Valley expectations **Homework:** • No formal homework is set in PE; however, we encourage all pupils to involve themselves in physical activity in their spare time and lead an active and healthy lifestyle • A range of extra-curricular activities are available before and after school and everyone is welcome to attend **Links to careers and personal development include:** • To develop an understanding of the impact individual's actions and attitude can have on others • To appreciate how pupils can contribute to a positive learning environment throughout the FVS community • Leading healthy active lives • Being physically active for sustained periods of time • Having the knowledge and understanding of the importance of fitness and health	**Assessment:** • We informally assess during PE lessons using observation, question & answer, peer and teacher assessment. Pupils receive constant verbal feedback • Formal assessments take place twice a year, and our focus is on a pupil's behaviour, engagement and whether or not they are meeting Forge Valley expectations **Homework:** • No formal homework is set in PE; however, we encourage all pupils to involve themselves in physical activity in their spare time and lead an active and healthy lifestyle • A range of extra-curricular activities are available before and after school and everyone is welcome to attend **Links to careers and personal development include:** • To experience a variety of leadership roles across a range of activities within PE • To develop the ability to add value to the performances of others and improve their success • Leading healthy active lives • Being physically active for sustained periods of time • Having the knowledge and understanding of the importance of fitness and health

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

Pupils continue to receive one hour of core PE a week during KS4 and will build on their abilities in many of the activity areas detailed above. Lessons focus purely on getting pupils active with the aim of fitness and enjoyment, whilst inspiring pupils to take part in PE outside of school as part of a healthy active lifestyle.

Pupils choosing the BTEC Tech Award in Sport as a pathway option will gain an insight into what it is like to work in the Sports sector, enabling them to make informed decisions about their future learning and career pathway in Sport. The qualification enables learners to develop sector-specific skills such as sport analysis and sports leadership, and personal skills such as communication, planning, time management and teamwork, through a practical and skills-based approach to learning and assessment.

Design Technology

Subject Leader of Product Design: Mr J Taylor

Curriculum Intent:
Design and Technology enables children and young people to actively contribute to the creativity, culture, wealth and well-being of themselves, their community and their nation. It teaches them how to assess and take risks and so become more resourceful, innovative, enterprising and capable.
Perhaps most importantly, it addresses the 'why?' as well as the 'what?'

Year 7	Year 8	Year 9
Core knowledge: Wood Hardwood • Take longer to mature, lose leaves, more expensive • Ash, beech, birch, cherry, elm, mahogany, oak, sapele, teak. Softwood • Grow quickly, have needles/exposed seeds, cheaper than hardwood • Cedar, fir, pine, spruce Manufactured board • Stable, less likely to warp and twist • Chipboard, MDF, blockboard, plywood, hardboard. FSC • Forest Stewardship Council • Responsible management of forests to ensure sustainability of wood resources Evergreen • Describes a softwood tree which does not lose its leaves at Autumn (softwoods) Deciduous • Describes a tree which does lose its leaves in Autumn (hardwoods) FSC • Forest stewardship council Metal Ferrous • Tough, rusts, stains, magnetic, contains iron • Cast iron, mild steel, high carbon steel • Stainless steel – tough, resistant to rust and stains Non-Ferrous • Do not rust, do not react to a magnet, do not contain iron • Aluminium, brass, copper, lead, zinc, titanium, tin Alloy • A mixture of 2 different metals Sheffield Steel	**Core knowledge:** Computer based knowledge CAD computer aided design CAM Computer aided manufacture • Computerised sewing machine • Dye sublimation printer Dye sublimation A digital printing technology that uses heat transfer to apply an image to the intended surface. Circuits Input, out, process, systems, electronic circuits. Machines • Heat press • Dye sublimation printer • Sewing machine • CAD CAM sewing machine • Pillar drill • Vacuum former Materials • Clay • MDF - medium density fibre board • Corex • Thermoplastics - Once heated and shaped can be reshaped, recyclable • Dowel • Motor • Solder • Calico • Electronic thread • LED • Transfer paper • Pins • Needles Past and present designers Smart materials A material that changes its properties in response to the environment. E.g., temperature, PH, or moisture. These changes are reversable when the conditions change again. • Thermochromic Change colour when the temperature changes • Photochromic	**Core knowledge:** Machines Heat press • A heat press is used to permanently apply a heat transfer to a surface. Dye sublimation. Belt sander • A belt sander is designed for high-speed sanding, quickly stripping a piece of wood with powerful force. Suited to large, flat surfaces. Sewing machine • used to sew fabric and materials together with thread. CAD CAM sewing machine • More efficient, more accurate, can be mass produced. Pillar drill • Pillar drills are free-standing machines that use a motor to rotate a bit with variable speed range. The drill press can be used to cut holes of different diameters. Machine tools Production Methods One off production • Bespoke products made to specific customer requirements Batch Production • A set number of products passed through the production process, together one stage at a time. Mass Production • The production process is broken down into stages with different tasks being performed while they move along a production line. Continuous Production • Identical products made without interruption, production will

- Sheffield Forgemasters, David Mellor, Georg Jenson, Harry Brealey, Harry Harrison

Design movements

Art Deco

- A decorative art style of the 1920s and 1930s, characterized by precise and boldly delineated geometric shapes and strong colours and used most notably in household objects and in architecture
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Art Nouveau

- A style of decorative art, architecture, and design prominent in western Europe and the USA from about 1890 until the First World War and characterized by intricate linear designs and flowing curves based on natural forms

Computer based technology

CAD

- Computer Aided Design

CAM

- Computer Aided Manufacture
- Computer software to control machine tools to make products
- Very accurate and fast

Change colour when exposed to UV light

- Microencapsulation

Capsules of tiny particles such as scents or medication

- Phosphorescent Pigments

Glow in the dark

- Hydrophobic

Repel water

Car design – History of car design, present car design and future car design

Biomimicry - The design and production of materials, structures, and systems that are modelled on biological entities and processes.

only stop occasionally for cleaning and maintenance.

CAD

- Computer Aided Design - 2D design, Fusion

CAM

- Computer Aided Manufacture
- Computer software to control machine tools to make products
- Very accurate and fast. Laser Cutter, Computerised sewing machine.

Prototypes

- Full sized first versions or working examples of product

Materials

Hardwood

- Deciduous
- Take longer to mature
- Lose leaves
- More expensive
- Ash, beech, birch, cherry, elm, mahogany, oak, sapele, teak.

Softwood

- Evergreen
- Grow quickly
- Have needles/exposed seeds
- Cheaper than hardwood
- Cedar, fir, pine, spruce

Manufacturing board

- Stable, less likely to warp and twist
- Chipboard, MDF, blockboard, plywood, hardboard.

FSC

- Forest Stewardship Council
- Responsible management of forests to ensure sustainability of wood resources

Acrylic

- Acrylic is a transparent plastic material with outstanding strength, stiffness, and optical clarity
- Fixings
- Dowel, nuts, bolts, screws, wingnuts

Concrete

- Concrete is a composite material composed of fine and coarse aggregate bonded together with a fluid cement that hardens over time.

Mild Steel

- Mild steel is a ferrous metal made from iron and carbon. It is a low-priced material with properties that are suitable for most general engineering applications.

Calico

- Cheap, easy to cut, easy to stitch.

		Felt • Felt is produced by matting, condensing and pressing fibres together. Felt can be made of natural fibres such as wool or animal fur, or from synthetic fibres such as petroleum-based acrylic or acrylonitrile or wood pulp-based rayon. Thread • Thread is made from a wide variety of materials. Where a thread is stronger than the material that it is being used to join, if seams are placed under strain the material may tear before the thread breaks. Garments are usually sewn with threads of lesser strength than the fabric so that if stressed the seam will break before the garment. Past and Present Designers • Past and present designers and their creations celebrated as lesson starters. • History of design. • Stella McCartney • Vivienne Westwood • Thomas Burberry • Alexander McQueen • Paul Smith Angle poise lamps Extendable, Moveable, Cheap, • George Carwardine (1887–1947) was a car designer and, at the time he invented the Angle poise lamp, (as a freelance) design consultant specialising in vehicle suspension systems.

Procedural knowledge (how to): **Skills** • Cutting out the insect body using tin snips • Filing the insect body to achieve a smooth finish • Sanding the insect body to achieve a smooth finish • Shaping the antenna using a metal vice and pliers • Measuring materials, antenna, plywood, drill holes • Using a hacksaw and coping saw • Making a wooden joint • Using a pillar drill • Using the belt sander to achieve a smooth finish • Using 2D design • Spot welding **Assessment:** • 'Do Now' retrieval practice starters • Verbal questioning in lessons • Key word tests • Two formal assessments (1 in food 1 in DT) **Homework:** **https://www.forgevalley.school/_site/data/files/document-store/719B3EDF3BBACB746289B13BCBE31D75.pdf**	**Procedural knowledge (how to):** **Skills** • Modelling - Making a model allows designers to visualise and test how a product looks and performs in 3D • Vac forming - a sheet of plastic is heated to a forming temperature, stretched onto a single-surface mould, and forced against the mould by a vacuum. • Using a saw – coping saw • Hand sewing skills – running stitch, laced running stitch, whipped stitch, chain stitch, tacking stitches. • Testing - A process of measuring the properties or performance of products • Machine sewing skills – straight stitch, reverse stitch, computerised sewing machine • Safety Health and safety in the workshop Health and safety in the textiles room • PPE – Aprons, gloves, goggles • Rules – Only one person to a machine, follow instructions, bags and coats out of the way, tie back long hair. • Cross curricular • Electronic circuits • Input - Place/device where energy/info enters a system Keyboard, microphone, webcam • Process - Series of action/steps taken to achieve a particular end • Output- Where power/info leaves a system, Headphones, speakers, printers • Aerodynamics - The way air moves around objects. Anything that moves through air reacts to aerodynamics. **Assessment:** • 'Do Now' retrieval practice starters • Verbal questioning in lessons • Key word tests • Two formal assessments (1 in food 1 in DT) **Homework:** https://www.forgevalley.school/_site/data/files/document-store/EFD3CD8A7C157497210532705 89EBEF2.pdf	**Procedural knowledge (how to):** **Skills** • Design ideas • Developing ideas and drawing skills – oblique, isometric etc. • Applique skills • The term appliqué is derived from French and Latin verbs *appliquer* and *Applicare*, respectively, which both mean to join or attach. • Pattern Cutting • Cutting out a paper template and felt pattern accurately. • Patchwork • Patchwork or "pieced work" is a form of needlework that involves sewing together pieces of fabric into a larger design. • Embellishments • Buttons, sequins, blanket stitch, additional features. • Hand Tools • Tenon saw, tri square, measuring and marking out. Safety • Health and safety in the workshop • Health and safety in the textiles room • PPE – Aprons, gloves, goggles etc. • Hair tied up, using fabric scissors safely. **Assessment:** • Do Now' retrieval practice starters • Verbal questioning in lessons • Key word tests • Two formal assessments (1 in food 1 in DT) **Homework:** https://www.forgevalley.school/_site/data/files/document-store/B1C456B9DA0C6B5A8348AE44F829DF5C.pdf

Link to careers and personal development include: Studying Design Technology can lead to successful, rewarding careers such as: • Architect • Graphic Designer • Creative Branding & Marketing • Advertising • Fashion Designer • Games Designer • Illustrator • Artist • Interior Designer • Jewellery Designer ...And many more!	**Links to careers and personal development include**: Studying Design Technology can lead to successful, rewarding careers such as: • Architect • Graphic Designer • Creative Branding & Marketing • Advertising • Fashion Designer • Games Designer • Illustrator • Artist • Interior Designer • Jewellery Designer ...And many more!	**Links to careers and personal development include:** Studying Design Technology can lead to successful, rewarding careers such as: • Architect • Graphic Designer • Creative Branding & Marketing • Advertising • Fashion Designer • Games Designer • Illustrator • Artist • Interior Designer • Jewellery Designer ...And many more!

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

Product Design

- Design and making of timber products (including relevant theory) is developed.
- Design and making of Products using CAD/CAM, as used in industry (including relevant theory) is developed.
- Deeper knowledge and understanding of materials, processes and the core knowledge required of a Product Designer is furthered.
- This is a good preparation for the A level in Product Design

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Food

Subject Leader: Mr J Taylor

Curriculum Intent:
The food curriculum at Forge is about making sure all children and young people are given the opportunity to learn and understand the importance of good eating habits and their effects at such a crucial and impressionable time in their lives. They are equipped with knowledge and skills to enable them cook a repertoire of predominantly savoury dishes so that they can feed themselves and others a healthy and varied diet.

Year 7	Year 8	Year 9
Core knowledge: **Food, Nutrition and Health.** • Eat well guide • Traffic Light labelling • Healthy eating guidelines • Main nutrients – Macro nutrients **Food Commodities** • Cereals • Potatoes and vegetables • Dairy **Food Science** Raising agents • Chemical • Biological • **Coagulation** • **Gelatinization** **Food Provenance** • Food Miles • Carbon Footprint • Sustainable • Food Waste • Seasonal Foods **Food Choice** • Cost of food • Culinary skills • Lifestyle /time/convenience • Seasonality • Availability • Special dietary needs – allergies, health conditions • Culture – British cuisine, multicultural cuisine • Historical events/links • Religion • Moral/ethical concerns • Healthy eating	**Core knowledge:** **Food, Nutrition and Health.** • Eat well guide • Traffic Light labelling • Healthy eating guidelines • 5 Main nutrients • Food Labels **Food Commodities** • Cereals • Potatoes and vegetables – Dairy • Meat • Poultry • Alternative proteins **Food Science** Raising agents • Chemical • Biological • Mechanical • Steam • **Coagulation** • **Gelatinization** **Food Provenance** • Where food is grown, caught or reared • How it is produced • How it is transported. • International cuisine **Food Choice** • Cost of food • Culinary skills • Lifestyle /time/convenience • Seasonality • Availability • Special dietary needs – allergies, health conditions • Culture • Historical events/links • Religion • Moral/ethical concerns • Healthy eating	**Core knowledge:** • **Food, Nutrition and Health.** • Eat well guide • Traffic Light labelling • Healthy eating guidelines • 5 Main nutrients • Food Labels • Nutritional needs of different life stages • **Food Commodities** • Cereals • Potatoes and vegetables – Dairy • Meat • Poultry • Fish • Alternative proteins • **Food Science** • Functions of ingredients • Coagulation • Gelatinization • Aeration • Dextrinization • Food is cooked to: • Methods of cooking • Heat Transfer • **Food Provenance** • Seasonal Foods • Sustainable • Food waste • **Food Choice** • Cost of food • Culinary skills • Lifestyle /time/convenience • Seasonality • Availability • Special dietary needs – allergies, health conditions • Culture • Historical events/links • Religion • Moral/ethical concerns • Healthy eating • Organoleptic characteristics – sensory descriptors

Procedural knowledge (how to):

- Weighing and measuring
- Knife skills – bridge and claw
- Using a cooker – hob, oven, grill
- Cooking methods – boiling, simmering, frying, baking, grilling.
- Preparing, combining and shaping foods.
- Rubbing in – a technique in which fat is rubbed into flour and traps air in the mixture.
- Dough – pastry, bread
- Sauces – blended, roux, reduction
- Equipment – basic equipment e.g., wooden spoon, chopping boards, stick blender
- Personal Hygiene and safety rules
- 4Cs – Cooking, cleaning, cross contamination, chilling
- Contaminate – transferring an unwanted substance from one item to another, such as bacteria from raw to cooked meat.

Assessment:

- Do Now' retrieval practice starters
- Verbal questioning in lessons
- Key word tests
- Two formal assessments (1 in food 1 in DT)

Homework:

https://www.forgevalley.school/_site/data/files/document-store/8B89366F2A14383F821E9BCC5F7A9718.pdf

Links to careers and personal development include:

- Careers include - Food scientist, Food product developer, Dietician, Nutritionist and within the Hospitality and Catering sector
- Principles of healthy eating and nutrition delivered to develop understanding of physical and mental health
- Understanding risks to personal wellbeing through healthy eating

Procedural knowledge (how to):

- Weighing and measuring
- Knife skills – bridge and claw
- Using a cooker – hob, oven, grill
- Cooking methods – boiling, simmering, frying, baking, grilling.
- Preparing, combining and shaping foods.
- Rubbing in – a technique in which fat is rubbed into flour and traps air in the mixture.
- Dough – pastry, bread
- Sauces – blended, roux, reduction
- Beating, combining, creaming, mixing, stirring, whisking
- Equipment – basic equipment e.g., wooden spoon, chopping boards, electric hand whisk
- Personal Hygiene and safety rules
- 4Cs – Cooking, cleaning, cross contamination, chilling
- Contaminate – transferring an unwanted substance from one item to another, such as bacteria from raw to cooked meat.

Assessment:

- Do Now' retrieval practice starters
- Verbal questioning in lessons
- Key word tests
- Two formal assessments (1 in food 1 in DT)

Homework:

https://www.forgevalley.school/_site/data/files/document-store/527BE77365AB084BD7D8D3F72C6F9587.pdf

Links to careers and personal development include:

- Careers include - Food scientist, Food product developer, Dietician, Nutritionist and within the Hospitality and Catering sector
- Understanding risks to personal wellbeing through food safe practices
- Cultural development achieved through delivering the factors which effect food choice
- Social development achieved whilst celebrating the advantages of eating together

Procedural knowledge (how to):

Assessment:

- Do Now' retrieval practice starters
- Verbal questioning in lessons
- Key word tests
- Two formal assessments (1 in food 1 in DT)

Homework:

https://www.forgevalley.school/_site/data/files/document-store/542092E933C7F270110800AEFA787A29.pdf

Links to careers and personal development include:

- Careers include - Food scientist, Food product developer, Dietician, Nutritionist and within the Hospitality and Catering sector
- British values delivered throughout all practical experiences
- Resilience developed by providing a safe space for taking academic and practical risks

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

Within the Hospitality and Catering vocational award pupils focus their learning on the Hospitality and Catering Industry and expectations within. Modules include:

- Success criteria for Hospitality and Catering establishments
- Job roles within the Hospitality and Catering industry
- Food safety
- Legal requirements for all Hospitality and Catering establishments

Both courses carry with them practical cooking experiences. The 12 expected skills are:

- Skill 1: General practical skills
- Skill 2: Knife skills
- Skill 3: Preparing fruit and vegetables
- Skill 4: Use of the cooker
- Skill 5: Use of equipment
- Skill 6: Cooking methods
- Skill 7: Prepare, combine and shape
- Skill 8: Sauce making
- Skill 9: Tenderise and marinate
- Skill 10: Dough
- Skill 11: Raising agents
- Skill 12: Setting mixtures

Personal Development

Subject Leader: Miss Shaw

Curriculum Intent:
Our extensive and well-planned personal development programme provides all pupils the opportunity to develop the skills and knowledge needed to be happy, healthy, safe and successful in modern Britain.

Year 7	Year 8	Year 9
Core knowledge: **Half term 1** My Mind Different forms of bullying & its effects Homophobia Online safety Personal Safety – Halloween & Bonfire Night **Half term 2** My Future How we learn – memory How we learn – study & self-regulation Being a resilient pupil How does self-esteem help us achieve? Exploring different jobs Entrepreneurs Unifrog **Half term 3** My Body Diet & exercise Links between physical and mental health Extracurricular activities in school Emotional wellbeing Sleep **Half term 4** My Body Puberty Personal Hygiene Menstrual Cycle Emotional changes & relationships Dental/oral health **Half term 5** My Future & My Body Personal safety How to respond in an emergency Road & Water safety First Aid including CPR	**Core knowledge:** **Half term 1** My Mind Families Arranged and Forced Marriage Divorce Stereotyping Racism Refugees & Asylum seekers **Half term 2** My Future How we learn – memory How we learn – study & self-regulation Managing my behaviour to achieve Employability skills HEPP visit Communication skills Unifrog **Half term 3** My Mind & My Future The UK pollical system Democracy How laws are made Environment Climate & Sustainability School based opportunities **Half term 4** My Body & My Mind Relationships Teen pregnancy & parenting Conception & Contraception FGM Sexual harassment & harmful sexual behaviour Stereotypes in the media **Half term 5** My Body Smoking Poor diet & links to health risk Eating disorders Sleep Energy drinks	**Core knowledge:** **Half term 1** My Body & My Mind Drug classification Addiction Should cannabis be legalised? Child criminal exploitation (CCE) Child sexual exploitation (CSE) Extremism & Radicalisation **Half term 2** My Future How we learn – memory Managing online presence Online reputation Workplace skills HEPP visit Options at FVS Unifrog **Half term 3** My Body & My Mind What is a respectful relationship Consent Risky sexual behaviour – drugs & alcohol Contraception Inc. condom demonstration Pregnancy & miscarriage Pregnancy options Parenting **Half term 4** My Body & My Mind STI's & sexual health Sexual orientation & Gender Identity Viewing harmful content online Consequence of sharing & viewing images of children Pornography – addition & effects on relationships **Half term 5** My Body Alcohol awareness Breast & Testicular cancer Immunisation & vaccination Blood, organ and stem cell donation Why do people self-harm Body image

Half term 6 My Future Equality & British Values Mutual respect and tolerance The Rule of Law Laws relating to ASB Disability awareness – VI visit	**Half term 6** My Future Personal Finance The Money Charity – Planning & budgeting The Money Charity – Credit & saving The Money Charity – Shopping & banking	**Half term 6** My Future Personal finance
Procedural knowledge (how to): • spots the signs of bullying and act against it • be resilient and take control of their own wellbeing to support achievement • recognise and understand the changes that occur during puberty • respond to an emergency including administer first aid • respect fundamental British values	**Procedural knowledge (how to):** • manage their own behaviour and wellbeing to support achievement • know their rights and responsibilities as a UK citizen in relation to democracy, law and the environment • have healthy relationships • identify harmful sexual behaviour • avoid stereotyping seen in the media • how to take positive steps to maintain good physical health • manage money	**Procedural knowledge (how to):** • make safe decisions for themselves in relation to drugs • spots the signs of grooming • the skills and attributes that employers' value • options available to them at the end of key stage 3, sources of information, advice and support, and the skills to manage this decision-making process • about routes into work, training and other vocational and academic opportunities, and progression routes • to recognise and manage internal and external influences on decisions which affect health and wellbeing. • have healthy relationships • maintain physical good health
Assessment: • End of topic scenario quiz on MS Forms • End of topic multiple choice quiz on MS Forms	**Assessment:** • End of topic scenario quiz on MS Forms • End of topic multiple choice quiz on MS Forms	**Assessment:** • End of topic scenario quiz on MS Forms • End of topic multiple choice quiz on MS Forms
Homework: • Assessment on MS Forms one every half term. • Support and further reading signposted.	**Homework:** • Assessment on MS Forms one every half term. • Support and further reading signposted.	**Homework:** • Assessment on MS Forms one every half term. • Support and further reading signposted.
Links to careers and personal development include: • Enabling pupils to recognise risks to their own wellbeing • Promoting inclusivity and diversity of all protected characteristics • Social development: Practice using a range of social skills in different situations • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships	**Links to careers and personal development include:** • Prepare learners for future success in education, employment and training • Spiritual development: Able to reflect on their own beliefs • Cultural development: Understanding the wide range of cultural influences that shape individuals	**Links to careers and personal development include:** • Character: Reflect Wisely, learn eagerly, behave with integrity, cooperate • Confidence, Resilience and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships • Prepare learners for future success in education, employment and training

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

At key stage 4, pupils deepen knowledge and understanding, extend and rehearse skills, and further explore attitudes, values and attributes acquired during key stage 3. Personal development reflects the fact that pupils are moving towards an independent role in adult life, taking on greater responsibility for themselves and others.

ICT & Computer Science

Subject Leader: Mrs E. Clement

Subject Intent:

Our vision is to inspire and develop lifelong skills for the future in our learners, expanding their capacity to communicate ideas and feelings. Pupils will leave Forge Valley being digitally literate and safe, equipped with the skills for their lifelong enjoyment of ICT and the confidence, competence and curiosity to use ICT in the 21st century.

What we study

(Computer Science topics are in bold italics)

Core Knowledge
Term 1

Y7-Y9 students study an introductory unit, where the core knowledge focuses on Office365, Internet, Email, Microsoft Office software – so that students are prepared for other subjects and the world of work. This unit's core knowledge covers basic computer competency as well as online safety.

All students learn:
- how to set up folders/sub folders
- how to store work organised with suitable file names
- how to access OneDrive
- how to use main features of email
- how to write a professional email (etiquette)
- how to use more advanced email features
- how to search the internet effectively, including correct images (vectors vs bitmaps), sourcing accurately, how to find copyright free/creative commons assets
- understanding bias and question reliability online
- how to report cyberbullying and understanding different types of attacks, including how to stay safe online
- understanding hardware and software, input/output devices, peripherals
- how to use basic formatting tools of Publisher, PowerPoint

From this, students will then specialise in an area for the rest of Term 1, with a different topic per year group

Y7	Y8	Y9
Rest of Term 1 will specialise in extended introductory skills - how to write a professional email (etiquette) - how to use more advanced email features ***- understanding hardware and software, input/output devices, peripherals*** - how to use basic formatting tools of Word - how to combine software - how to write an effective evaluation	**Rest of Term 1 will be introduced to Movie-making** - how to add interactivity and navigation in Presentations - how to import images to create a static movie, adding audio and transitions - how to edit movie layers and export ***(file types)***	**Rest of Term 1 will have a careers link looking at the future of IT.** - how to use multimedia assets, animations, transitions etc - how to use a slide master - how to create a navigation system - how to add interactivity ***- how IT is advancing in the future – AI, sensors, IoT***
Core Knowledge: **Term 2: Binary & Image manipulation** - ***IT legislation*** ***- how to keep data secure, encryption techniques, how text is stored in binary*** ***- how images are stored in binary, understand metadata concept***	**Core Knowledge:** **Term 2: Animation** - understand requirements from a client brief and be able to interpret it, consider the needs of the audience - how to create a visualisation diagram - how to create symbols in the library using line and curve	**Core Knowledge:** **Term 2: Spreadsheets, Coding & Physical Computing** - how to use excel formatting - how to use formulae and functions - ***how use gui with python (tkinter)*** ***- understand microbit basics*** - ***how to use crocodile clips combining wires with hardware and***

- how to remove backgrounds and use layers; ***understand how image manipulation can impact online safety*** ***- understand types of compression and what data comes from image properties*** - how to create text in graphics and add effects - how to set transparency to images - how to add filter effects to images - how to import images from source and add anchors in text - how to use formatting and tools of Publisher for an adult audience - how to write an evaluation with improvements	- how to add fill colours to symbols, edit and reuse symbols - how to create a storyboard - how to annotate a storyboard fully, knowing what should be included in the storyboard - how to create frame by frame animation, use key frames and add tweens - how to animate in Animate - how to design and use a test plan - how to improvements to animation following the test plan	***understanding - how connections are made*** ***- how to use sensors/motors with microbits*** ***- how to program microbit*** ***- how to test microbit*** ***- how to refine designs and code and suggest improvements***
<u>Core Knowledge:</u> **<u>Term 3: Sound</u>** - how to follow and interpret a brief - audience demographics - how to create a professional mind map using software -how to tools of Audacity to import layers of audio, move, select, trim and fade in / out - how to gather and source assets - what is in a script and how to be creative in writing your own. - how to analyse examples of scripts - how to use the script and planning documents with gathered assets to create a radio advert, using the tools of Audacity. - how to create a product to be suitable for their audience and fit the brief. - how to critique peers - how to evaluate against a brief	**<u>Core Knowledge:</u>** **<u>Term 3: Coding and Computer Games</u>** ***-how to plan, write and debug code in a variety of programming languages including block based and text*** ***- how to use basic input and print commands, how assignment and variables work*** ***- how selection works*** ***- understand mathematical operators*** ***- how to build a 3D game world*** ***- how to code in Kodu*** ***- how to use paths*** ***- understand data types*** ***- how to use functions/sub routines***	**<u>Core Knowledge:</u>** **<u>Term 3: IDMP / Commencement of KS4 iMedia</u>** -how to morph 3D elements -how to create a functioning IDMP with assets - how to test the IDMP **The KS4 OCR iMedia course starts in June where the assignment is released. Core knowledge for the rest of Term 3 will focus on preparing students to start the assignment:** -how to create a mind map - how to create a mood board - how to create a client brief - understand audience demographics

COMPUTER SCIENCE Core knowledge:

KS3

- ***Introduction to understand the basic programming constructs of sequence, selection and iteration***
- ***Understand several key algorithms that reflect computational thinking; use logical reasoning to compare the utility of alternative algorithms for the same problem.***
- ***understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal].***
- ***Introduction to understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits***

Also, through the KS3 projects each term students understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems.

Computer Science knowledge is also introduced in extra-curricular club and activities, such as the Oxford University Bebras Challenge (competition) which covers logical thinking, and logic. Within the club, programming constructs are delivered (e.g. iteration, selection)

Procedural knowledge:

Students will:

- ***Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems.***
- ***Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems***

ICT Core knowledge:

As well as more traditional core knowledge:

Spreadsheets – within Y9, in order to prepare for the KS4 iMedia course and ready for work, pupils need an understanding of work plans and Gantt charts in Excel. Formatting skills are taught within spreadsheets. However, formulae, functions and chart knowledge are no longer taught in the KS4 courses though are apart of the Y9 course.

Presentations – within the IMediaKS4 course presentations are taught as part of the optional coursework units R097. Advanced tools of presentation software (specially PowerPoint) are taught at KS3 as well as tailoring for professional audiences.

Videos – within the IMediaKS4 course presentations are taught as part of the optional coursework units R097, where videos are created in Moviemaker or other video software, using the tools to create and export videos ready to import into the presentation software, so this is again introduced in Y8.

Images – within the IMediaKS4 course pupils are taught how to edit images in a variety of graphics software such as Photoshop, DrawPlus, Paint etc so this is introduced in Y7.

Animations – within the IMediaKS4 course animations may be taught as part of the optional coursework units and where presentations use animations (gifs, plus custom animation) so is introduced in Y8.

Procedural knowledge (how to):

Students will:

- Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. (This is done through importing video / audio into the IDMPs)
- Create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability. (This is done through the sources / assets tasks and consideration of legislation in terms of assets – and in effect their trustworthiness / sources of information)

Every time a pupil uses a computer or device (e.g. microphone) they will:

- ***Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns***.

(This is also taught cross curricular, within the tutorial process and a part of PSHE)

Assessment:

- Baseline tasks and progress tasks in lessons.
- Tracking
- Summative whole class feedback assessment sheets
- Formative Do Now Tasks
- Questioning / cold calling
- Pupils need to justify their design decisions (orally and in written evaluations)

Homework:
Pupils will be guided on what out of lessons learning they will be expected to complete
This will be no more than three hours per half term.

Links to careers and personal development include:

- Online safety digital e citizen (for Personal Development)
- IMedia links to Creative Digital Industries and the units we undertake link contextually to popular industry sectors in Sheffield/Rotherham - such as Animation/Gaming studios, Web Design, Graphic design, Multimedia, Film and Radio, Publishing and other entertainment industries.
- Computer Science links to careers such as Programmers, Teachers, Accountancy, Engineers, Games Design, Web Design, Graphic Designers, plus more!
- Enabling pupils to recognise online risks to their own wellbeing. Build pupils ethical awareness around the use and development of technology.
- Build pupils confidence, resilience, understand, cultural capital knowledge.
- Prepare learners for future success in education, employment and training, so that they can keep themselves mentally healthy and be economically successful.
- Promote inclusion: Computer Science opportunities are for everyone.

How is my knowledge developed further in Key Stage 4 (years 10 and 11)?

We run two courses that students can opt to take:

- GCSE Computer Science
- OCR IMedia (Vocational ICT)

GCSE Computer Science will encourage you to: understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms, and data representation. Analyse problems in computational terms through practical experience of solving such problems, including designing, writing, and debugging programs. Think creatively, innovatively, analytically, logically and critically. Understand the components that make up digital systems, and how they communicate with one another and with other systems and understand the impacts of digital technology to the individual and to wider society.

Within KS3, pupils develop from single line code commands to a working programming, developing from print and input commands to if and elif statements and recalling variables to create a more interactive program than printed statements.
At KS4 within optional Computer Science, this then builds further from binary to assembly language – using Little Man Computer (opcode/operand mnemonics) to higher level – Small Basic, Python – to more advanced Python for the Unit 2 Component using Tkinter library with Python to create GUIs. Text based language is taught as part of the taster for pupils' option choices, so fits with the options process prior to KS4 Computer Science commencing.

Core (Vocational) ICT through iMedia directly links to Year 9 ICT – where the course continues and develops.