KS3 Computing

Curriculum Map

3-year Curriculum

Year 7: Building on skills learnt in KS2

Autumn 1: File management, Hardware and Software

Autumn 2: E-Safety /security

Spring 1: Binary (Conversions sound and images)

Spring 2: Spreadsheets /modelling

Summer 1: Databases and networks

Summer 2: Programming Scratch and using a MicroBit.

Unit Tests throughout to develop retrieval, retention and revision skills

Year 8: Build on Computational skills

Autumn 1: Flowcharts and Pseudocode

Autumn 2: CPU and secondary storage devices

Spring 1: Websites and HTML

Spring 2: Databases

Summer 1: Binary numbers and Logic Gates

Summer 2: programming with Python

Unit Tests throughout to develop retrieval, retention and revision skills

Year 9: Transition to skills required at GCSE/BTEC

Autumn 1: Systems Architecture

Autumn 2: Business enterprise

Spring 1: Multimedia Project

Spring 2: The CPU secondary storage

Summer 1: Programming (Python, Greenfoot HTML)

Summer 2: Enterprise project

Off to GCSE

Introduction to Secondary Computing

Welcome to KS3 – Your teacher will explain how KS3 works including lesson format, open book assessments, formal assessments, SKO and homework

Introduction & Reflection

Time will be given to reflect on last years work and how improve on the progress made so far

Subject Knowledge Organisers

Use to support learning throughout.

Unit Assessment 1 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Unit Assessment 2 & Feedback

Each assessment will look at what has been learnt so far to help identify strengths and areas for development

Unit Assessment 2 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Unit Assessment 3 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Introduction & Reflection

Time will be given to reflect and recap on last years work and how improve on the progress

Unit Assessment 1 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Unit Assessment 2 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Unit Assessment 3 & Feedback

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Subject Knowledge Organisers

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Unit Assessment 1 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Unit Assessment 3 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Unit Assessment 2 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Formal Assessment 3 & Feedback

Each assessment assesses what has been learnt so far to help identify strengths and areas for development. This will help inform which tier you will follow at GCSE

Thinking of studying Computer Science beyond GCSE? Speak to Mr Worrall

KS4 GCSE Computer Science

Curriculum Map

2-year Curriculum

Off to your future

WJEC Paper 2
2 hours

Exam: Paper 2 Computational thinking and programming

REVISION

WJEC PAPER 1
1 hours 45 mins

Exam: Paper 1 Understanding computer Science

REVISION

Intermittent Revision and Exam Technique

Focused revision after each paper based on what has already been assessed

Exams

Year 11

Autumn 1: CS in wider context.

Introduction & Reflection

Time will be given to reflect on last years work and how improve on the progress made so far

Autumn 2: Data Structures, Assembly Languages

Mock Exam 1

This will take place this term and revision sessions in and out of class will be provided

Spring 1: Software Development NEA

Mock Exam 1 QLA & Feedback

Your teacher will deliver lessons to help you to improve following your mock

Spring 2: Pseudocode/ Algorithms

Mock Exam 2 and Feedback

This will take place early this term and revision sessions in and out of class will be provided. Final opportunity to identify gaps in knowledge

Summer 1: Exam prep and revision

Past Paper Focus

Your teacher will provide you with activities and past papers as you approach your exam

Summer 2: Security and Authentication

Unit Assessment 2

Use of full GCSE exam series to identify understanding so far

Summer 1: HTML, Python, Logical operators, algorithms

Assessment Prep

Your teacher will focus on developing exam skills; and provide opportunities for revision and interleaving activities

Spring 2: Greenfoot, Python

Closing the Gap

Your teacher will provide opportunities to secure skills and knowledge.

Spring 1: Networks /Network protocols

Assessment 1 Feedback

This will help give an understanding of how GCSE exam papers are marked

Autumn 2: Python, programming constructs, Software

Unit Assessment 1

Use of full GCSE exam series to identify understanding so far

Autumn 1: Systems Architecture, Hardware

Introduction to GCSE

Tier explanation, grading, assessment and exam board specification

Year 10

THE PRESCOT SCHOOL

IN THE BUSINESS OF LEARNING - SINCE 1544

The Prescot School Subject Overview for

Computing (Yr.7)

1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 3. Alongside this, opportunities will be given to explore and discover computing in a variety of ways and activities. All pupils will be regularly given reflect and review on their learning through the use of retrieval activities that and build on confidence within specific topic areas in computing. Building on primary school we will also look at building skills with the intention of providi required skills for Key Stage 4 and GCSEs.

Head of Department:

Mr J. Worrall

Number of lessons per fortnight for Key Stage 3: **2**

2 Course/Subject structure

Pupils will explore concepts and master skills in the following topic areas along with opportunities to review and reflect on their learning through subject knowledge organisers, unit/topic and formal assessments.

Term 1	File management, Hardware, Software
Term 2	Binary numbers and Spreadsheets
Term 3	Databases, Networks and programming with Scratch

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

3 Recommended texts or websites to support home learning

www.bbc.co.uk/bitesize
https://scratch.mit.edu/
https://hourofcode.com/uk/learn

4 Specialist equipment/materials required if applicable.

A computer at home would be beneficial although not a pre requisite.

In class we recommend that every pupil has at least a pencil, pen and their planner. Other stationary is welcome and folders etc will be provided.

THE PRESCOT SCHOOL

IN THE BUSINESS OF LEARNING - SINCE 1544

The Prescot School Subject Overview for

Computing (Y. 8)

1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 3. Alongside this, opportunities will be given to explore and discover computing in a variety of ways and activities. All pupils will be regularly given [illegible] reflect and review on their learning through the use of retrieval activities that [illegible] and build on confidence within specific topic areas in computing. Building on [illegible] primary school we will also look at building skills with the intention of providi[illegible] required skills for Key Stage 4 and GCSEs.

Head of Department:

Mr J. Worrall

Number of lessons per fortnight for Key Stage 3: **2**

2 Course/Subject structure

Pupils will explore concepts and master skills in the following topic areas along with opportunities to review and reflect on their learning through subject knowledge organisers, unit/topic and formal assessments.

Term 1	Flowcharts and pseudocode, The CPU and storage devices
Term 2	Websites, programming a simple webpage using HTML and databases
Term 3	Binary logic, logic gates, programming with Python

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

3 Recommended texts or websites to support home learning

www.bbc.co.uk/bitesize
https://www.python.org/

4 Specialist equipment/materials required if applicable.

A computer at home would be beneficial although not a pre requisite.

In class we recommend that every pupil has at least a pencil, pen and their planner. Other stationary is welcome and folders etc. will be provided.

THE PRESCOT SCHOOL

IN THE BUSINESS OF LEARNING - SINCE 1544

The Prescot School Subject Overview for

Computing (Y. 9)

1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 3. Alongside this, opportunities will be given to explore and discover computing in a variety of ways and activities. All pupils will be re
opportunity to reflect and review on their learning through the use of retr
develop retention skills and build on confidence within specific topic areas
on the skills developed in primary school we will also look at building skill
providing an insight into the required skills for Key Stage 4 and GCSEs. Th
incorporate work leading towards KS4 options such as Business Studies a
your child a taste of life after KS3.

Head of Department:

Mr J. Worrall

Number of lessons per fortnight for Key Stage 3: 2

2 Course/Subject structure

Pupils will explore concepts and master skills in the following topic areas along with opportunities to review and reflect on their learning through subject knowledge organisers, unit/topic and formal assessments.

Term 1	Systems architecture and enterprise
Term 2	Multimedia project, The CPU and storage
Term 3	Programming with Python, Greenfoot and HTML. Enterprise project

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

3 Recommended texts or websites to support home learning

www.bbc.co.uk/bitesize
https://www.python.org/
https://www.greenfoot.org/doc

4 Specialist equipment/materials required if applicable.

A computer at home would be beneficial although not a pre requisite.
In class we recommend that every pupil has at least a pencil, pen and their planner. Other stationary is welcome and folders etc. will be provided.

THE PRESCOT SCHOOL

IN THE BUSINESS OF LEARNING - SINCE 1544

The Prescot School Subject Overview for

Computer Science (Yr.10)

1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 4. Alongside this, opportunities will be given to explore and discover Computer Science in a variety of ways and activities. All pupils will be regularly given the opportunity to reflect and review on their learning through the use of retrieval activities that c skills and build on confidence within specific topic areas in Computer Science.

Head of Department:

Mr J. Worrall

Number of lessons per fortnight for KS4: **6**

2 Course/Subject structure

Pupils will further explore concepts and master skills in the following topic areas:

Term 1	Systems architecture, Programming constructs
Term 2	Networks and Network Protocols, Programming with Python and OO programming
Term 3	Logical Operators, Programming and Security and Authentication

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

3 Recommended texts or websites to support home learning

www.bbc.co.uk/bitesize
https://www.python.org/
https://www.greenfoot.org/doc

4 Specialist equipment/materials required if applicable.

A computer with internet access at home would be beneficial.
In class we recommend that every pupil has at least a pencil, pen and their planner. Other stationary is welcome and folders etc. will be provided.
GCSE computing revision guides for WJEC specification would be useful.

THE PRESCOT SCHOOL

IN THE BUSINESS OF LEARNING - SINCE 1544

The Prescot School Subject Overview for

Computer Science (Yr.11)

Head of Department:

Mr J. Worrall

Number of lessons per fortnight for KS4: **6**

1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills rec and progression in Key stage 4. Alongside this, opportunities will be given to exp Computer Science in a variety of ways and activities. All pupils will be regularly g to reflect and review on their learning through the use of retrieval activities that skills and build on confidence within specific topic areas in Computer Science. Ye opportunity to refine the skills developed at key stage 3 and in Year 10 to ensure to achieve the best possible outcome in their GCSE Computer Science exam and be fully equipped for life beyond The Prescot School and ready to take Computer Science to the next level.

2 Course/Subject structure

Pupils will further explore concepts and master skills in the following topic areas

Term 1	CS in a wider context, Assembly Languages
Term 2	Software development, Computer science project (NEA*)
Term 3	Pseudocode and algorithms and exam preparation

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

3 Recommended texts or websites to support home learning

www.bbc.co.uk/bitesize
https://www.python.org/
https://www.greenfoot.org/doc

4 Specialist equipment/materials required if applicable.

A computer with internet access at home would be beneficial.
In class we recommend that every pupil has at least a pencil, pen and their planner. Other stationary is welcome and folders etc. will be provided.
GCSE computing revision guides for WJEC specification would be useful.
(*NEA is a 20 hour programming project taken under exam conditions and is part of the GCSE.)