

Entrust Education Technologies

Computing Scheme of Work Unit Overview

Overview of the units of work for each year group. The term in which these units are delivered can be decided by your school, as some units may link to topics covered in other subjects. We have made it clear in the planning where it is necessary to teach the skills from one unit before delivering another.

IT	CS	DL
Collecting, Evaluating and Presenting Information Unit	Data Handling Unit	Computer Science and Programming Unit

We recommend you **deliver Simple Programs and Algorithms Part 1** before **Create Simple Programs Part 2** but not delivered consecutively.

Year 1	<p>Digital Literacy – delivered at intervals throughout the year</p> <p>Use Project Evolve toolkit to deliver online safety lessons for your year group. There is time for at least 6 lessons, during the year, to be allocated to delivering discrete lessons within computing time</p> <p>Visit https://projectevolve.co.uk/</p>				
	<p>Just Paint and Write – Part 1 - All about Me</p> <p>Children will create a number of drawings and text files, save them and then use them in a JiT5 ‘Write’ and ‘Paint’ software to produce pieces of work entitled ‘All about Me’</p> <p><i>Collecting, Evaluating and Presenting Information Unit</i></p> <p>5 Lessons</p>	<p>Collect Photographs and Paint Pictures - Part 2</p> <p>Create digital album using Photographs, JiT5 ‘Write’, ‘Paint’ and ‘Mix’ tools</p> <p><i>Collecting, Evaluating and Presenting Information Unit</i></p> <p>6 Lessons</p>	<p>Gathering Data and Creating Charts</p> <p>Use JiT5 Chart and Pictogram to develop an understanding of data from a chart and present work in Mix</p> <p><i>Data Handling Unit</i></p> <p>5 Lessons</p>	<p>Simple Algorithms and Programs Part 1</p> <p>Introduce route-based programming and physical devices (Beebot)</p> <p><i>Computer Science and Programming Unit</i></p> <p>4 Lessons</p>	<p>Create Simple Programs Part 2</p> <p>Use logical thinking to evaluate algorithms and route-based programs in JiT5 Turtle to improve outcomes</p> <p><i>Computer Science and Programming Unit</i></p> <p>4 Lessons</p>

It is recommended that **Ways to Present Information** is the first unit taught in year 2 and not followed on by **Art of Animation**.

Year 2	Digital Literacy – delivered at intervals throughout the year Use Project Evolve toolkit to deliver online safety lessons for your year group. There is time for at least 6 lessons, during the year, to be allocated to delivering discrete lessons within computing time. Visit https://projectevolve.co.uk/				
	Ways to Present Information Design assets using JiT5 'Paint', 'Write' and 'Animate' tools. <i>Collecting, Evaluating and Presenting Information Unit</i> 5 Lessons	Art of Animation Design animations that present information about oceans. Each lesson assets will be drawn using JiT5 'Paint' as well as adding backgrounds and shared images to combine and create an effective animation. <i>Collecting, Evaluating and Presenting Information Unit</i> 6 Lessons	Create a topic-based eBook Use JiT tools to create an eBook in Jit Mix tool – include a mixture of text, painting and photos within a variety of page layouts <i>Collecting, Evaluating and Presenting Information Unit</i> 6 Lessons	Collecting, Organising and Presenting Data Interpreting data from a chart and gathering opinions using J2Vote and present findings <i>Data Handling Unit</i> 5 Lessons	Sequencing Simple Algorithms and Programs Predict, create, modify, and investigate route-based programs and sequences in JiT5 Turtle <i>Computer Science and Programming Unit</i> 5 Lessons

We recommend that you deliver **Organising, Creating and Presenting** before **QR Codes** and **Write a Program Part 1** before **Write a Program Part 2** but not delivered consecutively.

Year 3	Digital Literacy – delivered at intervals throughout the year Use Project Evolve toolkit to deliver online safety lessons for your year group. There is time for at least 6 lessons, during the year, to be allocated to delivering discrete lessons within computing time. Visit https://projectevolve.co.uk/				
	Organising, Creating and Presenting Use 3 types of multi-media: text, image and animation to create, organise and present content effectively, considering layout choices and appropriate presentation styles depending on purpose <i>Collecting, Evaluating and Presenting Information Unit</i> 5 Lessons	QR Codes Explore what QR Codes are and how they are created to present information to a user. Children will record sound files and create QR codes to allow others to access and listen to the sound files <i>Collecting, Evaluating and Presenting Information Unit</i> 5 Lessons	Creating a Branching Database and Interrogating Simple Databases Create and use a branching database focusing on questions for sorting Sort and search simple databases to answer questions and create graphs to interpret data <i>Data Handling Unit</i> 6 Lessons	Write a Program Part 1 Block Based Sequences Use sequencing and debugging strategies in J2Visual <i>Computer Science and Programming Unit</i> 5 Lessons	Write a Program Part 2 Drawing Shapes Create programs that include repetition and sequence in J2Visual to create simple images <i>Computer Science and Programming Unit</i> 5 Lessons

We recommend that you deliver **Scratch Programming from Algorithm to Code** before **On the Move with Programming** but not delivered consecutively.

Year 4	<p>Digital Literacy – delivered at intervals throughout the year</p> <p>Use Project Evolve toolkit to deliver online safety lessons for your year group. There is time for at least 6 lessons, during the year, to be allocated to delivering discrete lessons within computing time.</p> <p>Visit https://projectevolve.co.uk/</p>				
	<p>Multimedia Fact File</p> <p>Create a researched based fact file based upon a topic being studied (Rainforest). Plan and create fact files pages that are hyperlinked from the home page include a range of multimedia – images, sounds, and video</p> <p>Collecting, Evaluating and Presenting Information Unit</p> <p>6 Lessons</p>	<p>Creating and Interrogating Simple Databases</p> <p>Design a simple database and interrogate data using sort and search functions</p> <p>Data Handling Unit</p> <p>5 Lessons</p>	<p>What is Computer Technology?</p> <p>Looks at computers to understand what a computer is made up of, how the components all work together to provide access to the technology we use today.</p> <p>Computer Science and Programming Unit</p> <p>6 Lessons</p>	<p>Scratch Programming from Algorithm to Code Pt1</p> <p>Explore inputs and outputs within programs using Scratch3. Use broadcast, repetition and controlled count loops to control events</p> <p>Computer Science and Programming Unit</p> <p>6 Lessons</p>	<p>On the Move with Programming Pt2</p> <p>Introduce movement blocks and conditional statements to control events in Scratch3 reinforcing sequence, selection and repetition</p> <p>Computer Science and Programming Unit</p> <p>6 Lessons</p>

Year 5	Digital Literacy – delivered at intervals throughout the year Use Project Evolve toolkit to deliver online safety lessons for your year group. There is time for at least 6 lessons, during the year, to be allocated to delivering discrete lessons within computing time. Visit https://projectevolve.co.uk/			
	Infographics	Computers for Communication and Collaboration	Creating and Using Spreadsheets as Models to Solve Problems	Programming Making Games
	Develop an understanding of what makes infographics a popular choice to present and share information. Develop an understanding of colour, styling, enhanced editing tools and the use of charts/graphs/tables to effectively present information. They will research and select key information to present as an infographic in J2e5	How computers offer opportunities for communication and collaboration; considering how technology has improved, and forms of communication have changed as a result. Who has been influential in the changes of technology over time?	Use and create spreadsheets to support solving mathematical problems using simple formulae, answering ‘What if’ type questions and presenting information in graphs	Use selection, conditional statements, and variables in Scratch3 to create simple games
	<i>Collecting, Evaluating and Presenting Information Unit</i>	<i>Collecting, Evaluating and Presenting Information Unit</i>	<i>Data Handling Unit</i>	<i>Computer Science and Programming Unit</i>
	6 Lessons	5 Lessons	6 Lessons	12 Lessons

<p align="center">Digital Literacy – delivered at intervals throughout the year</p> <p align="center">Use Project Evolve toolkit to deliver online safety lessons for your year group. There is time for at least 6 lessons, during the year, to be allocated to delivering discrete lessons within computing time.</p> <p align="center">Visit https://projectevolve.co.uk/</p>					
Year 6	<p>Understanding Big Data</p> <p>This unit will look at what big data is, the impact on privacy and security of data, how data is used by others in both authorised and unauthorised ways</p> <p><i>Collecting, Evaluating and Presenting Information Unit</i></p> <p>6 Lessons</p>	<p><i>NEW</i> Artificial Intelligence and Machine Learning</p> <p>Explore real world applications that use Artificial Intelligence (AI) and Machine Learning (ML) and reflect on its potential for the future of different industries and job roles that may not yet exist. Students will learn how to create their own Smart Classroom.</p> <p><i>Collecting, Evaluating and Presenting Information Unit</i></p> <p>6 Lessons</p>	<p>Analyse and Interpret Data using Spreadsheets</p> <p>Create spreadsheets that are fit for purpose and support the user in finding the answers to problems</p> <p><i>Data Handling Unit</i></p> <p>6 Lessons</p>	<p>The Internet and World Wide Web</p> <p>Understand what the internet is and discuss the services it provides. Focus in on the world wide web as a service and how data and information travels around the network. Consider how search engines help to find information and how to improve search techniques when looking for information online</p> <p><i>Computer Science and Programming Unit</i></p> <p>6 Lessons</p>	<p>Game Design</p> <p>Use pseudo-code, cloning and conditional operators (Boolean) in Scratch3 to make and design complex games</p> <p><i>Computer Science and Programming Unit</i></p> <p>6 Lessons</p>