

Oxford International Primary Computing

Matched
to the English
National Curriculum
for computing
studies

The national curriculum for computing aims to ensure that all pupils:

- ▶ can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- ▶ can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- ▶ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- ▶ are responsible, competent, confident and creative users of information and communication technology

Oxford International Primary Computing gives pupils and teachers the tools they need to achieve these aims through a six-level course structured around a real-life, project-based approach that ensures pupils leave primary school with the vital computing skills they will need for the digital world.

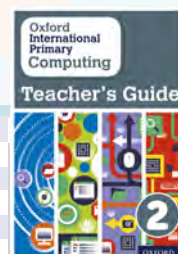
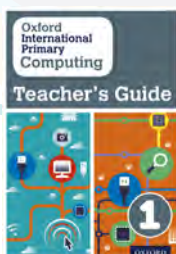
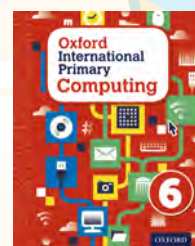
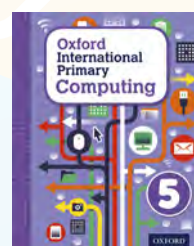
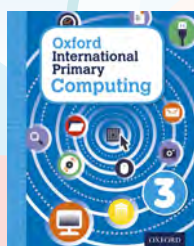
Key Stage 1 Computing Programme

National Curriculum attainment target	Coverage in <i>Oxford International Primary Computing</i>
<ul style="list-style-type: none"> ▶ Use technology safely and respectfully, keeping personal information private ▶ Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies 	<p>Be Safe</p> <p>Book 1, Chapter 1: Work safely at the computer</p> <p>Book 1, Chapter 5: Keep safe online</p> <p>Book 1, Chapter 6: Look after equipment and be courteous</p>
<ul style="list-style-type: none"> ▶ Use technology purposefully to create, organise and store digital content 	<p>Working with text</p> <p>Book 1, Chapter 3: Use word processing to make a book about toys</p> <p>Book 2, Chapter 1: Use word processing to make a travel brochure</p> <p>Multimedia</p> <p>Book 1, Chapter 2: Draw pictures of toys using graphics software</p> <p>Book 2, Chapter 2: Find images and combine with text to make a travel poster</p>
<ul style="list-style-type: none"> ▶ Use technology purposefully to retrieve digital content 	<p>The Internet</p> <p>Book 1, Chapter 5: Looking at web sites</p> <p>Book 2, Chapter 3: Use a search engine to find information about mini beasts</p> <p>Multimedia</p> <p>Book 2, Chapter 2: Choosing Clip Art pictures</p>
<ul style="list-style-type: none"> ▶ Use technology purposefully to manipulate digital content 	<p>Handling data</p> <p>Book 1, Chapter 4: Count numbers and put them into a spreadsheet to make a graph</p> <p>Book 2, Chapter 4: Use a spreadsheet to carry out simple sums</p> <p>Multimedia</p> <p>Book 2, Chapter 2: Putting words and pictures together; editing Clip Art images and designing a page</p>
<ul style="list-style-type: none"> ▶ Recognise common uses of information technology beyond school 	<p>Computers in society</p> <p>Book 2, Chapter 5: Find out how people use technology to help them with their work</p>
<ul style="list-style-type: none"> ▶ Understand what algorithms are ▶ Understand how algorithms are implemented as programs on digital devices ▶ Understand that programs execute by following precise and unambiguous instructions ▶ Use logical reasoning to predict the behaviour of simple programs ▶ Create and debug simple programs 	<p>Control the computer</p> <p>Book 1, Chapter 1: Control a simple Scratch program. Understand input and output</p> <p>Book 2, Chapter 6: Look at the structure of a simple Scratch program. Edit a Scratch program to produce different results</p> <p>Book 3, Chapter 4: Investigate a program, and relate its action to its structure. Make a Scratch script by fitting blocks together.</p> <p>Computers in society</p> <p>Book 4, Chapter 6: What are algorithms? How algorithms are implemented in computer technology.</p>

Key Stage 2 Computing Programme

National Curriculum attainment target	Coverage in <i>Oxford International Primary Computing</i>
<ul style="list-style-type: none"> ▶ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour ▶ Identify a range of ways to report concerns about content and contact 	<p>Be Safe</p> <p>Book 1, Chapter 1: Work safely at the computer</p> <p>Book 1, Chapter 5: Keep safe online</p> <p>Book 1, Chapter 6: Look after equipment and be courteous</p> <p>Book 3, Chapter 5: Keep safe when sending and receiving emails</p> <p>Book 5, Chapter 4: Online platforms for young people. Moderated forums. Commenting policy. Protecting your identity online</p> <p>Book 6, Chapter 6: Publish content safely on the Internet</p>
<ul style="list-style-type: none"> ▶ Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 	<p>Working with text</p> <p>Book 3, Chapter 1: Combine words and images to create a report</p> <p>Book 4, Chapter 1: Cut copy and replace. Editing text in response to feedback</p> <p>Book 5, Chapter 1: Creating a book with text and images</p> <p>Book 6, Chapter 1: Make a class yearbook</p> <p>Multimedia</p> <p>Book 3, Chapter 2: Creating and delivering a presentation on robots. Transitions and animations. Using themes.</p> <p>Book 4, Chapter 2: Making and editing digital photographs. Transferring between hardware</p> <p>Book 5, Chapter 2: Making a video of a mountain walk</p> <p>Book 6, Chapter 3: Record and edit audio content. Combine audio and visual content to create a multimedia presentation</p> <p>Handling data</p> <p>Book 3, Chapter 3: Create a line graph. Sort a table of data into order</p> <p>Book 4, Chapter 3: Sum function. Spreadsheet formulas. Calculating percentages. Pie and bar charts</p> <p>Book 5, Chapter 3: Using a spreadsheet to keep simple business accounts. Making a spreadsheet model of a real life system</p> <p>Book 6, Chapter 2: Data tables. Sort and filter a table. Validating data input. Logical analysis of data</p> <p>Computers in society</p> <p>Book 3 Chapter 6: How images are made of pixels</p>
<ul style="list-style-type: none"> ▶ Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration 	<p>The Internet</p> <p>Book 3, Chapter 5: Helpful websites.</p> <p>Book 3, Chapter 1: Shared folders.</p> <p>Book 5, Chapter 4: World of blogs. Reading and responding to online content. Publishing our own blog posts.</p> <p>Book 6, Chapter 6: Make a web page. Create a site structure and add content. Publish online.</p>

National Curriculum attainment target	Coverage in <i>Oxford International Primary Computing</i>
<ul style="list-style-type: none"> ▶ Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content 	<p>The Internet</p> <p>Book 4, Chapter 5: 'Web quest'. Searching online. Facts, opinions and adverts.</p> <p>Book 5, Chapter 4: Evaluating and sharing blog content.</p> <p>Book 6, Chapter 2: Searching and filtering a table of data to extract results.</p>
<ul style="list-style-type: none"> ▶ Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts ▶ Use sequence, selection, and repetition in programs; work with variables and various forms of input and output 	<p>Control the computer</p> <p>Book 3, Chapter 4: Investigate a program, and relate its action to its structure. Make a Scratch script by fitting blocks together. Change script values to alter the action of a program. Use a fixed loop in a program.</p> <p>Book 4, Chapter 4: Make a Scratch program which generates a maths quiz and keeps score. Use variables. Conditional structures. Logical test. Comparing values.</p> <p>Book 5 Chapter 5: Creating a computer game using Scratch programming which simulates physical movement. Detecting a 'hit'. Using a timer to control a program.</p> <p>Book 6 Chapter 5: Use of procedures. Looping. Randomisation. Reacting to events and input. Customising a program.</p>
<ul style="list-style-type: none"> ▶ Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 	<p>Computers in society</p> <p>Book 4, Chapter 6: The development of computing technology, AI and algorithms.</p> <p>Book 5, Chapter 6: Sorting algorithms. Insertion sort. Selection sort. Bubble sort.</p> <p>Book 6, Chapter 4: Game theory. Testing and modifying games.</p>



All Project materials and resources are available for FREE online:
www.oxfordprimary.com/computing