



Computing Curriculum and Knowledge Map



Key stage 3

Communication and Collaboration (Y6)

I can **describe** how data is transferred across the internet and know why this would be useful – basic
 I can identify different ways of working together online - advancing
 I can **draw conclusions** on different methods of communicating on the internet and explain that communication on the internet may not be private - advancing

Programming B (Y5) - Selection in Quizzes

I can **define** selection and **create** a program that uses selection to produce different outcomes - basic
 I can **identify** ways to debug my program - advancing
 I can **recommend** ways to improve a program – deep

Programming A (Y6) - Variables in Games

I can **define** a 'variable' as something that changes – basic
 I can **explain** why a variable is used in a program - advancing
 I can **recommend** ways that other projects could be improved through the use of variables - deep

Programming B (Y6) - Sensing Movement

I can **create** a program to run on a controllable device – basic
 I can **compare** selection on a program to conditions in the real world - advancing
 I can **prove** the importance of the order of conditions in 'else...if...' statements and **recommend** ways to modify a program to meet a different outcome - deep

- Children will revisit these concepts and learn how to use this knowledge to solve problems using computer technology.
- use two or more programming languages, at least one of which is textual, to solve a variety of computational problems.
- understand simple Boolean logic (for example, AND, OR and NOT) and its use in programming;

Programming A (Y5) - Selection in Physical Computing

I can **create** a simple circuit connect it to a microcontroller – basic
 I can **create** a program that uses count-controlled loops and selection to direct the flow of a program – basic
 I can **identify** how to use selection to produce an intended outcome - advancing

Systems and Searching (Y5)

Describe the roles of computer systems in our lives – Basic
Create a web search to find specific information and refine this – Basic
Explain that a search engine follows rules to rank results – Advancing



Programming B (Y6) - Sensing Movement

I can **create** a program to run on a controllable device – basic
 I can **describe** the importance of the order of conditions in 'else...if...' statements - basic
 I can **explain** that selection can control the flow of a program and **identify** examples of conditions in the real world – advancing

Communication and Collaboration (Y6)

I can **describe** how computers use address to access websites – basic
 I can **describe** how data is transferred across the internet and know why this would be useful – basic
 I can **compare** different methods of communicating on the internet - advancing

Programming B (Y5) - Selection in Quizzes

I can **define** selection and say how it is used in computer programs - basic
 I can **create** a program that uses selection to produce different outcomes – basic
 I can **identify** ways to debug my program - advancing

Programming A (Y6) - Variables in Games

I can **define** a 'variable' as something that changes – basic
 I can **create** a project on Scratch that uses a variable – basic
 I can **identify** ways to improve a program, adding variables independently - advancing

Programming A (Y5) - Selection in Physical Computing

I can **create** a simple circuit connect it to a microcontroller – basic
 I can **create** a program that uses count-controlled loops and selection to direct the flow of a program – basic
 I can **identify** a real-world example of a condition starting an action - advancing

Systems and Searching (Y5)

Describe how computers can be connected together to form systems – Basic
Create a web search to find specific information and refine this – Basic
Explain that a search engine follows rules to rank results – Advancing

Year 5



3D Modelling (Y6)

I can **create** a 3D model by manipulating objects – basic
 I can **identify** objects to combine in a design that meets a given purpose - advancing
 I can **propose** improvements to my own 3D model and modify it - deep

Introduction to Vector Graphics (Y5)

I can **create** a desired effect using different tools to help me – basic
 I can **identify** that vector drawings consist of layers and that I can manipulate these to develop my own - advancing
 I can **draw conclusions** about the skills that I have used to create a vector drawing and why I have used this skill - deep

Introduction to Spreadsheets (Y6)

Create a formula which includes a range of cells – Basic
Explain how to apply a formula to calculate the data I need to answer questions – Advancing
Select suitable ways to present data – Deep

Introduction to Vector Graphics (Y5)

I can **create** a vector drawing using the line and shape tools – basic
 I can **create** a desired effect using different tools to help me – basic
 I can **identify** that vector drawings consist of layers and that I can manipulate these to develop my own - advancing

3D Modelling (Y6)

I can **create** a range of 3D shapes on a computer – basic
 I can **create** a 3D model by manipulating objects – basic
 I can **identify** objects to combine in a design that meets a given purpose - advancing



Video Production (Y5)

I can **Name** features used in different videos – Basic
 I can **Create** digital media (video) using a range of techniques – Basic
 I can **Consider** the impact of the choices made when making and sharing a video - Advancing

Flat-file Databases (Y5)

I can **Describe** how information can be recorded – Basic
 I can **Describe** how to navigate a flat-file database to compare different views of information – Basic
 I can **Organise information** based on a real-world database - Advancing

Web Page Creation (Y6)

I can **Describe** how to find copy-right free images and know why I should use these – Basic
 I can **Identify** and suggest edits to my website to improve user experience – Advancing
 I can **Justify** the need for navigation paths on a website – Deep

Introduction to Spreadsheets (Y6)

I can **Create** a dataset in a spreadsheet by applying an appropriate format to a cell – Basic
 I can **Create** a formula which includes a range of cells – Basic
 I can **Explain** why data should be organised to answer questions using a spreadsheet - Advancing

Web Page Creation (Y6)

I can **Name** the different types of media and common features used on websites – Basic
 I can **Describe** how to find copy-right free images and know why I should use these – Basic
 I can **Identify** and suggest edits to my website to improve user experience – Advancing

Flat-file Databases (Y5)

I can **Describe** how information can be recorded – Basic
 I can **Label** a field, record and value in a database – Basic
 I can **Identify** which field and value are required to answer a given question – Advancing

Video Production (Y5)

I can **list** the features of effective videos – Basic
 I can **create** digital media (video) using a range of techniques – Basic
 I can **explain** how to improve a video through reshooting and editing - Advancing

Year A

