The Computing Curriculum at the Synergy Schools Federation

Year 1

1	Computer Science	Controlling a Programmable Toy – Beebot/Roamer
2	Computer Science	Purple Mash 1.5: Control a sprite on screen (and using Lightbot)
3	Basic Skills – Word Processing	Word Processing – Basic Functions
4	Handling Data	Finding Images on the Internet
5	Multimedia	Pic Collage/Using images to be creative with technology
6	E-Safety	Purple Mash 1.1: Online Safety

Year 2

1	Computer Science	Purple Mash 2.1: Use Logical Reasoning to solve coding problems
2	Computer Science	Lightbot: Use Logical Reasoning to solve coding problems
3	Basic Skills – Using email	Teaching the basics of sending and receiving emails.
4	Basic Skills – Word Processing	Add images from the Internet
5	Handling Data (+E-Safety)	Purple Mash 2.5: Effective Internet Searching
6	Handling Data	Purple Mash 2.4: Questioning

Year 3

1	Computer Science	Rapid Router (Code for Life) – Finding and Correcting Bugs in Programmes
2	Basic Skills - Typing	Purple Mash 3.4: Learning to Type
3	Multimedia	Creating Digital Art – Sketchpad / Kleki
4	Handling Data	Purple Mash 3.6: Branching Databases
5	Basic Skills - Word Processing	Creating more complex documents using Word online (Office 365)
6	E-Safety	Be Internet Legends (Y3/4 – Series 1)

Year 4

1	Computer Science	Purple Mash 4.1 IF Statements and Variables
2	Computer Science	Rapid Router (Code for Life) – Using Procedures
3	Handling Data	Data Logging – Using the Arduino App
4	Multimedia	Purple Mash 4.6: Creating an Animation – 2Animate
5	Multimedia	Using Sway to present a range of media
6	E-Safety	Purple Mash 4.2: Phishing, Malware and Plagiarism
7	Basic Skills – IT Knowledge	Purple Mash 4.8: Hardware Investigators

Year 5

1	Computer Science	Purple Mash 5.1: Decomposition and Abstraction; Strings and Variables
2	Computer Science	Purple Mash 5.5: Game Creator (2DIY 3D)
3	Multimedia	Become a Graphic Designer (Canva.com or Publisher)
4	Basic Skills - Collaboration	Collaborative Working Online
5	Multimedia	Advanced Digital Art (Pixlr Editor)
6	E-Safety	Be Internet Legends (Y5/6 Series 1/2)

Year 6

1	Computer Science	Purple Mash 6.1: Designing and making a more complex program
2	Computer Science	Controlling External Devices (BBC Microbit)
3	Multimedia	Designing and TV Advert (iMovie)
4	Handling Data	Purple Mash 6.9: Spreadsheets (MS Excel)
5	Multimedia	Creating a Year Book – MS Publisher
6	Basic Skills - Networking	Purple Mash 6.6: Difference between the www and the Internet
7	E-Safety	Purple Mash 6.2: Risks and Benefits of Being Online

Phase 1/Key Stage 1: Year 1	
Unit 1	Controlling a Programmable Toy – Beebot/Roamer

- I can give instructions to my friend and follow their instructions to move around (e.g. forward 2 steps; turn right etc.)
- I know that algorithms are sets of instructions for computers.
- I can predict the outcome of an algorithm.

Create an account on Barefoot Computing (https://www.barefootcomputing.org/primary-computing-resources).
There are lots of good units of work there which provide different contexts for Beebots/Roamers.

Phase 1/Key Stage 1: Year 1	
Unit 2	Coding – Control a sprite on screen (Purple Mash and Lightbot)

- I know that algorithms are sets of instructions for computers.
- I can predict the outcome of an algorithm.
- I can create simple lists of instructions for an on-screen sprite.
- I can begin to debug simple programmes.

Use Purple Mash to take these coding concepts further. Unit 1.5 from the Computing Scheme of Work, puts it on the screen. This is really easy to follow.
Utilise the 'Lightbot' app on ipads or download the Lightbot 'Hour of Code' so you can use it on the laptops.
Lightbot is a really great app to use to teach basic coding concepts. Ensure that you use the correct terminology 'debug' and 'algorithm'.

Phase 1/Key Stage 1: Year 1	
Unit 3	Word Processing – Basic Functions

- I can log on and off independently.
- I know some of the basic features of a keyboard. (E.g. shift, caps lock, enter, space bar, back space)
- I can save my work, with help.
- I can describe how I use ICT
- I can be creative with different technology tools.
- I can use technology to create and present my ideas.
- I can talk about the different ways in which information can be shown.

Use the laptops to log into the network and access Office 365.
Pupils have access to the Word app. Think about how you can provide a simple cross-curricular link to teach some of the basic functions of a word processor, as explained above.
Remember to teach the children how to save their work into Onedrive. They can then open the work next lesson and keep working on it.

Phase 1/Key Stage 1: Year 1	
Unit 4	Finding Images on the Internet

- I can log on and off independently.
- I can describe how I use ICT
- I can use technology to collect and sort information, including photos, videos and sound.
- I can use the Internet to help me learn.
- I can use a safe search engine (e.g. Kiddle, Kidrex)
- I know who to tell if I come across something I don't like on the Internet.
- I can be creative with different technology tools.
- I can use technology to create and present my ideas.

Use the laptops to log into the network and access Office 365. Although you can undertake aspects of this unit of work with the ipads, it's a great opportunity to practice logging on and off and those keyboard skills.
There are some really good Internet browsers for children out there that will return safe searches. For example, use Kiddle or Kidrex. Take the opportunity to discuss copyright. Are we allowed to print and use any images we want? Show some images from the Internet with watermarks. What are they for? How would children feel if their displayed work was wrongly named? Would they be upset?
Could they print an appropriate image from the Internet that they could use in their work in another subject?

Phase 1/Key Stage 1: Year 1
Unit 5   Pic Collage/Using images to be creative with technology

- I can be creative with different technology tools.
- I can use technology to create and present my ideas.
- I can save my work, with help.
- I can describe how I use ICT
- I can take a photo on a device (EYFS)

This unit allows the children to combine different media to create a poster using the 'Pic Collage' app on ipads. If you haven't used this app before – search for it on Youtube and watch a tutorial. It's very simple to use. It allows users to combine images, text and other media to create posters, cards, and more complex imagery. This unit really provides a great opportunity for pupils to combine their IT lessons with other learning they are doing across another area of the curriculum.

Note that it would be useful to revise the taking of photos on the ipad and use these images in the final creation. For example, recording their findings of a science experiment or taking photos of their local environment in geography.

Phase 1/Key Stage 1: Year 1
Unit 6   Online Safety

- I can log into a password protected website independently.
- I know who to tell if I come across something I don't like on the Internet.
- I can save my work, with help.

For this unit, simply refer to Purple Mash Computing Scheme of Work, Unit 1.1. The teacher notes, videos and lesson plans are all there to support your teaching.

Phase 1/Key Stage 1: Year 2
Unit 1   Purple Mash: Use Logical Reasoning to solve coding problems

- I can create and debug simple programmes.
- I can predict what will happen when a programme is run.
- I can begin to use software apps to create movement and patterns on a screen.
- I can use the word 'debug' when I correct mistakes.
- I know that instructions need to be clear and unambiguous.
- I can plan out a programme by creating an algorithm and evaluate its success.

For this unit, simply refer to Purple Mash Computing Scheme of Work, Unit 2.1. The teacher notes, videos and lesson plans are all there to support your teaching.

Phase 1/Key Stage 1: Year 2
Unit 2   Lightbot: Use Logical Reasoning to solve coding problems

- I can create and debug simple programmes.
- I can predict what will happen when a programme is run.
- I can begin to use software apps to create movement and patterns on a screen.
- I can use the word 'debug' when I correct mistakes.
- I know that instructions need to be clear and unambiguous.
- I can plan out a programme by creating an algorithm and evaluate its success.

For this unit, use the Lightbot app to provide a framework for your lessons. The app is very easy to use but provides progressive levels for the children to utilise and develop their computational thinking.

Ensure that you are using good computing vocabulary throughout the unit of work. Year 3 pupils undertake lots of work on the 'repeat function' of algorithms, so you should try to avoid spending too much time teaching this concept as it will be covered later.

Phase 1/Key Stage 1: Year 2

Unit 3	Using email – Teaching the basics of sending and receiving emails.

- I can tell you about an online tool that will help me to share my ideas with other people.
- I can use the keyboard on my device to add, delete and space text for others to read.
- I know how to use basic font formatting tools.
- I know that my password is private and know that I must not give out personal information over the Internet.
- I know why it is important to be kind and polite online and in real life.
- I can login into my Office365 account independently.
- I know what an email is and why they are used.
- I can open an email.
- I can create an email.
- I can send a new email that contains a subject line and text.
- I can open an email and reply.

For this unit, use the laptops and the Outlook app to introduce email. It would be useful to work with another class across the federation so that children can send and receive emails with a 'pen pal'. This will help to keep this unit of work in a real life context. All pupil emails are locked down in as much as they are unable to send and receive emails outside the tenancy. Take the opportunity to discuss how this helps to keep them safe – and there are other things that we must do to keep safe online (see above).

Phase 1/Key Stage 1: Year 2

Unit 4	Word Processing – Add images from the Internet

- I can use the menu button on the mousepad. (right click)
- I can use the keyboard on my device to add, delete and space text for others to read.
- I know how to use basic font formatting tools.
- I know how to add an image to a document from a given source.
- I can resize an image in a document.
- I can use the Internet to find and save information.
- I can save my work into a class folder.
- I can find my own work (with help).
- I can describe how I use ICT and how it is used in the real world.
- I can use technology to organise and present my ideas in different ways.
- I can tell you about an online tool that will help me to share my ideas with other people.

This unit ensures that pupils' word processing skills continue to be developed. They should combine locating an image from the Internet with text to create a finished document. This should utilise a range of word processing functions, such as font formatting (see above). Work should be saved and then opened from Onedrive so it can be edited and resaved. This unit of work provides an easy link to another area of the curriculum.

Phase 1/Key Stage 1: Year 2

Unit 5	Effective Internet Searching (+E-Safety) – Using Purple Mash

- I can access a website from a given URL.
- I can use the Internet to find and save information.
- I can describe how I use ICT and how it is used in the real world.

For this unit, simply utilise Purple Mash's unit 2.5 which contains all the lesson plans and content that's required to support this learning.

Phase 1/Key Stage 1: Year 2

Unit 6	Questioning – Using Purple Mash for Handling Data

- I can talk about the different ways I use technology to collect information. e.g. a camera and a sound recorder.
- I can add and modify information to a pictograph and talk about the key features.
- I can make and save a chart or graph.
- I am starting to understand a branching database.
- I can tell you what kind of information I can use to investigate a question.

For this unit, simply utilise Purple Mash's unit 2.4 which contains all the lesson plans and content that's required to support this learning.

Phase 2/Lower Key Stage 2: Year 3	
Unit 1	Coding – Rapid Router (Code for Life) – Finding and Correcting Bugs in Programmes

- I can use programming software to make objects move.
- I can watch a programme, execute and spot where it goes wrong, so that I can debug it.
- I can use sequence and repetition in programs (e.g. count controlled loops)

Create a log in for Code for Life (https://www.codeforlife.education/) and setup logins for your class. Rapid Router provides a greater framework for investigating repetition and count-controlled loops. There are a number of lesson plans and specific activities that are ideal for Year 3. Work is saved automatically so children can return to the point they left their work. A print out of progress for each pupil supports assessment.

Phase 2/Lower Key Stage 2: Year 3	
Unit 2	Learning to Type – Purple Mash

- I can use two hands to type the letters on the keyboard.

For this unit, simply utilise Purple Mash's unit 3.4 which contains all the lesson plans and content that's required to support this learning.

Phase 2/Lower Key Stage 2: Year 3	
Unit 3	Creating Digital Art – Sketchpad / Kleki

- I can create different effects with different technology tools.
- I can design, edit, improve and create digital content for a purpose/audience.
- I can combine a mixture of text and graphics to share my ideas and learning.
- I can evaluate my work and improve its effectiveness.
- I can explain why we use technology to create digital content.
- I know about the features of a good piece of digital content.

There are several browser-based art packages available – two links are given below.
https://kleki.com/ - A basic art package but with all the functions that you need to get going.
https://sketch.io/sketchpad/ - A slightly more advanced piece of software.
This unit links to the art unit of work studying the work of a local artist, for example Lucy Pittaway, Barbara Lamb. It is possible to import photographs of the local area – Lamb painted street scenes of Richmond, for example, making an interesting use of colour and line. Pupils could use an art package and photos of Richmond to draw over these images 'in the style of'.

Phase 2/Lower Key Stage 2: Year 3	
Unit 4	Branching Databases – Purple Mash

- I can talk about the different ways data can be organised.
- I can search and sort a ready-made database to answer questions.
- I can collect data to help me answer a question.
- I can name the key parts of a database. E.g. record, field, search, sort
- I can plan, create and search a database to answer questions.
- I can save files using appropriate file names.

For this unit, simply utilise Purple Mash's unit 3.6 which contains all the lesson plans and content that's required to support this learning.

Phase 2/Lower Key Stage 2: Year 3	
Unit 5	Word Processing – Creating more complex documents using Word online (Office 365)

- I can select an object and use Ctrl+C to copy.
- I can paste an object using Ctrl+V to paste.
- I can copy and paste from the Internet.
- I can use a range of formatting tools (e.g. table tools, draw toolbar, page layout)
- I can choose the printer and print my work.
- I can evaluate my work and improve its effectiveness.
- I can explain why we use technology to create digital content.
- I can recognise why we use different types of media to convey information. E.g. text, image, audio, video
- I know about the features of a good piece of digital content.

• I can save files using appropriate file names.
This unit ensures that pupils' word processing skills are developed before they go onto using similar skills in more complex scenarios (such as using Sway and desktop publishing software). Work should be saved and then opened from Onedrive so it can be edited and resaved. This unit of work provides an easy link to another area of the curriculum but it must involve the use of more advanced feature of word processing, such as the use of tables, different page formats and the draw toolbar. It's also important that pupils evaluate their work, considering the audience and suggesting ways that it can be improved.

Phase 2/Lower Key Stage 2: Year 3	
Unit 6	E-Safety – Be Internet Legends (Y3/4 – Series 1)

- I know what makes a secure password and why they are important.
- I can post positive comments online.
- I can use a search engine independently to produce a list of results and can follow a link from the results page to obtain information.
- I understand the need to challenge the accuracy of information when researching the Internet.
- I can check results of a search against others and explain why they might be different.
- I know how to use the headphones.
- I know how to adjust the volume.

Visit the following link which provides lesson plans and e-safety content for this unit.
https://beinternetlegends.withgoogle.com/en_ie

Phase 2/Lower Key Stage 2: Year 4	
Unit 1	Coding – IF Statements and Variables

- I can use logical reasoning to explain how some simple algorithms work.
- I know I need to keep testing my programme while I am putting it together.
- I can recognise that an algorithm will help me sequence more complex programmes.
- I can begin to use sequence and selection in programs and work with variables

For this unit, simply utilise Purple Mash's unit 4.1 which contains all the lesson plans and content that's required to support this learning.

Phase 2/Lower Key Stage 2: Year 4	
Unit 2	Coding – Rapid Router (Code for Life) – Using Procedures

- I can use logical reasoning to explain how some simple algorithms work.
- I know I need to keep testing my programme while I am putting it together.
- I can use procedures to improve my algorithm.

Create a log in for Code for Life (https://www.codeforlife.education/) and setup logins for your class. Rapid Router provides a greater framework for investigating procedures. Year 3 pupils will have used this software to develop their understanding of repeats and count-controlled loops. Ensure that their learning is developed from this point. There are a number of lesson plans and specific activities that are ideal for Year 4. Work is saved automatically so children can return to the point they left their work. A print out of progress for each pupil supports assessment.

Phase 2/Lower Key Stage 2: Year 4	
Unit 3 (short)	Data Logging – Using the Arduino App

- I can organise, collect data in different ways and identify where it could be inaccurate.
- I can choose the best way to present data.
- I can use a data-logger to record and share my readings.
- I can use a data-logger to monitor changes and can talk about the information collected.

The Arduino app can be downloaded free of charge from the app store. It uses all the in-built sensors within the ipad (sound, compass, accelerometer, light, barometer (air pressure), timer/stopwatch). It is very easy to set up these sensors to record a series of readings. Using cross curricular links with science is a great way of making the learning meaningful for the pupils. For example, Which material lets the most light through? Which instrument makes the loudest sound? Does sound loudness decrease as you increase distance from the sound source?

Phase 2/Lower Key Stage 2: Year 4
Unit 4	Creating an Animation – Purple Mash – 2Animate

- I know I need to keep testing my programme while I am putting it together.
- I can use photos, video and sound to create an atmosphere when presenting to different audiences.
- I am confident to explore new media to extend what I can achieve.

Log into Purple Mash and choose 2Animate. The software has an excellent tutorial video on the top right hand corner of the screen that pupils can access themselves, where necessary. Explain the concept of animation and how the software manages the process. A zoetrope and flipbooks could be used/created first to show how to do this without the aid of computer-generated imagery. Perhaps generate a context for the animation that fits nicely with a cross-curricular them to help to provide purpose for the learning. Unit 4.6 from Purple Mash's scheme of work may help to organise lessons.

Phase 2/Lower Key Stage 2: Year 4
Unit 5	Using Sway to present a range of media

- I can make new folders as required in order to organise my files.
- I can use an appropriate tool to share my work and collaborate online.
- I can use photos, video and sound to create an atmosphere when presenting to different audiences.
- I am confident to explore new media to extend what I can achieve.
- I can change the appearance of text to increase its effectiveness.
- I can create, modify and present documents for a particular purpose.
- I can use a keyboard confidently and make use of a spellchecker to write and review my work.
- I can discuss my use of ICT and my observations of its use outside school.
- I can give constructive feedback to my friends to help them improve their work and refine my own work

Sway is a multimedia presentation software – mix up a website with PowerPoint and you'll be somewhere near! The following link is a good introduction to using this really creative, engaging and useful tool.
https://www.youtube.com/watch?v=OJQBeH3KqD8&t=406s
It's ideal for a cross-curricular project to share what pupils have learned in a particular area.

Phase 2/Lower Key Stage 2: Year 4
Unit 6	E-Safety – Phishing, Malware and Plagiarism – Purple Mash

- I know that anything I post online can be seen by others.
- I can talk about why I need to ask a trusted adult before downloading files from the Internet.
- I can explain about malware and how it can disrupt, damage and gain access to my device.
- I know that security symbols such as a padlock protect my identity online.
- I can explain what a digital footprint is.
- I know what plagiarism is and the difference between using information and copying it.
- I protect my password and other personal information.
- I can explain the importance of communicating kindly and respectfully.

In this unit, children will learn about some key e-safety concepts – phishing, malware and plagiarism. Purple Mash's unit 4.2 contains all the lesson plans and content that's required to support this learning.

Phase 2/Lower Key Stage 2: Year 4
Unit 7 (Short)	Hardware Investigators – Purple Mash

- I can name the different parts of a desktop computer.
- I know what the function of the different parts of a computer is.
- I can deploy basic troubleshooting strategies in order to solve IT problems.

In this short unit of two lessons, children will learn about the difference between software and hardware and the different parts that make up a computer. Purple Mash's unit 4.8 contains all the lesson plans and content that's required to support this learning.

Phase 3/Upper Key Stage 2: Year 5
Unit 1	Coding – Decomposition and Abstraction; Strings and Variables (Purple Mash)

- I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.
- I can design, write and debug programs that accomplish specific goals.
- I can use sequence, selection and repetition in programs; work with variables and various forms of input and output.

For this unit, simply utilise Purple Mash's unit 5.1 which contains all the lesson plans and content that's required to support this learning.

Phase 3/Upper Key Stage 2: Year 5
Unit 2	Game Creator (2DIY 3D – Purple Mash)

- I can describe some of the elements that make a successful game.
- I can construct a simple computer game by selecting appropriate options to maximise the playability.
- I can evaluate my own and peers' games to help improve design for the future.

For this unit, simply utilise Purple Mash's unit 5.5 which contains all the lesson plans and content that's required to support this learning.

Phase 3/Upper Key Stage 2: Year 5
Unit 3	Become a Graphic Designer (Canva.com or Publisher)

- I can use text, photo, sound and video editing tools to refine my work.
- I can use the skills I have already developed to create content using unfamiliar technology.
- I can select, use and combine the appropriate technology tools to create effects that will have an impact on others.

Pupils will learn about graphic design in this unit. Initially look at a range of commercial logos. Consider how they are successful. What aspects do they have? Why are they memorable? Pupils to use canva.com or Publisher to create their own logo for their own brand. The branding could be flexible – link this to their other cross-curricular work or generate a couple of hypothetical scenarios for new companies/brands.
Once a logo has been created, can they use this logo to create other things such as a letterhead, poster, business card which utilise the logo and develop the branding?

Phase 3/Upper Key Stage 2: Year 5
Unit 4	Collaborative Working

- I can retrieve my work and move files between folders in order to keep my work organised.
- I can use a range of Office365 apps appropriately and effectively.
- I use information technology effectively to collaborate with others.
- I can assess the use of ICT in my work and am able to reflect critically in order to make improvements to it.
- I can review and improve my work and support others to improve their work
- I can send an email to more than 1 person simultaneously.
- I can open an attachment in an email.
- I can open an attachment, download it and save it in an appropriate place.

This unit is all about collaboration across the federation. Explain that pupils will be working in small cross-school groups to create a pre-arranged set of outcomes within a strict timescale. They have full access to Office 365 and Teams to support this project. They will need to establish how they will collaborate, share, delegate and come up with their outcomes by the deadline. Teachers should support this work by choosing tasks that fit with other cross-curricular work. For instance, groups might need to create a presentation about something as well as a piece of writing which is exactly 250 words long. Pupils will need to use a range of online learning tools such as Teams, video conferencing, email, Office apps etc. to stay in touch and create their outcomes.

Phase 3/Upper Key Stage 2: Year 5
Unit 5	Advanced Digital Art (Pixlr Editor)

- I can use some advanced features of art software to edit photos and create art work.
- I can assess the use of ICT in my work and am able to reflect critically in order to make improvements to it.
- I can review and improve my work and support others to improve their work.
- I can plug in and use external devices to a laptop (e.g. projector, camera, video camera)

For this unit of work, pupils will use Pixlr Editor. This is a free browser-based photo editor which works similar to Photoshop. https://pixlr.com/
There are plenty of good tutorials available on Youtube - https://www.youtube.com/watch?v=FbMu-1sV4GM
This link takes you to a website with good lesson plans and ideas, using this software.
https://www.youtube.com/watch?v=FbMu-1sV4GM (NB: If you pay for anything, please ask for reimbursement!)
Andy Warhol's 'Marilyn' is great to study – it can then be recreated in different guises, using different filters for each image. Pupils can then take it a stage further by taking really effective images of themselves in different poses, expressions, uploading these and adding filters, effects, extra drawings etc. for a full effect.

Phase 3/Upper Key Stage 2: Year 5	
Unit 6	E-Safety – Be Internet Legends (Y5/6 Series 1/2)

- I protect my password and other personal information.
- I know that anything I post online can be seen, used and may affect others.
- I can explain the importance of communicating kindly and respectfully.
- I can explain why I need to protect my device from harm.
- I can search a database using different operators to refine my search.
- I can talk about mistakes in data and suggest how it could be checked.
- I know that there are several search engines and they may produce different results.
- I can use a search engine effectively to find information and images.

Visit the following link which provides lesson plans and e-safety content for this unit.
https://beinternetlegends.withgoogle.com/en_ie

Phase 3/Upper Key Stage 2: Year 6	
Unit 1	Coding – Designing and making a more complex program

- I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- I can use different inputs (including sensors) to control a device or on screen action and predict what will happen.
- I can predict what will happen in a programme or algorithm when the input changes (e.g. sensor, data or event)

For this unit, simply utilise Purple Mash's unit 6.1 which contains all the lesson plans and content that's required to support this learning.

Phase 3/Upper Key Stage 2: Year 6	
Unit 2	Coding – Controlling External Devices (BBC Microbit)

- I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- I can use different inputs (including sensors) to control a device or on screen action and predict what will happen.
- I can name a range of sensors in physical systems
- I can predict what will happen in a programme or algorithm when the input changes (e.g. sensor, data or event)

Visit the BBC Microbit site (https://microbit.org/). There is loads of information to get you up to speed about this technology, from the basics of how the microbit computer works and how to connect it to a device to the sorts of activities you can do with them in the classroom.
This link (https://microbit.org/lessons/?filters=age-07-11yrs) takes you to some short units of work, using the microbit. The 'Data Handling' and 'Getting Active' units would be worth looking at to begin with as these focus on utilising the sensors and working with variables.

Phase 3/Upper Key Stage 2: Year 6	
Unit 3	Designing and TV Advert (iMovie)

- I can talk about audience, atmosphere and structure when planning a particular outcome.
- I can confidently identify the potential of unfamiliar technology to increase my creativity.
- I can combine a range of media, recognising the contribution of each to achieve a particular outcome.
- I use information technology effectively to collaborate with others

- I can assess which software to use in order to solve problems using ICT (e.g. to create a leaflet or a database of information).
- I can be digitally discerning when evaluating the effectiveness of my work and the work of others.
- I can tell you why I select a particular online tool for a specific purpose.

Using the iMovie app on the ipads, pupils should design and construct a TV advert to advertise a product. This should be a unit of work that takes a few hours to plan, film and edit collaboratively in a small group. It will be much easier if the same ipad is used for all filming, so the group has all its resources on the same device. The advert could easily link to a cross-curricular theme. The quality of the outcome is directly proportional to the quality of the planning! https://www.youtube.com/watch?v=4WlXYrStaIY This link provides a good iMovie tutorial.

Phase 3/Upper Key Stage 2: Year 6	
Unit 4	Spreadsheets (MS Excel)

- I can select the most effective tool to collect data for my investigation.
- I can check the data I collect for accuracy and plausibility.
- I can interpret the data that I collect in appropriate ways.
- I use the skills that I have developed to interrogate a database.
- I can manage my own online file storage space effectively and efficiently.

For this unit, simply utilise Purple Mash's unit 6.9 which contains all the lesson plans and content that's required to support this learning. If the children have not used a spreadsheet before, you may consider starting with the 'Y6 Spreadsheets Crash Course' on Purple Mash – see Y6 scheme of work.

Phase 3/Upper Key Stage 2: Year 6	
Unit 5	Creating a Year Book – MS Publisher

- I can talk about audience, atmosphere and structure when planning a particular outcome.
- I can confidently identify the potential of unfamiliar technology to increase my creativity.
- I can combine a range of media, recognising the contribution of each to achieve a particular outcome.
- I can manage my own online file storage space effectively and efficiently.

Pupils will utilise MS Publisher (Desktop Publishing Software) to create a collaborative Year Book to commemorate their time in primary school. This will be a collaborative project – the class will all work on a single document to achieve a final finished product. It will require a great deal of collaborative skills. For instance, who will do what? For will they work together on this simultaneously? Where will they store their work?

Phase 3/Upper Key Stage 2: Year 6	
Unit 6 (Short)	Networks – Difference between the www and the Internet

- I know the difference between the World Wide Web and the internet.
- I know about Tim Berners-Lee.
- I know about some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult.

For this unit, simply utilise Purple Mash's unit 6.6 which contains all the lesson plans and content that's required to support this learning.

Phase 3/Upper Key Stage 2: Year 6	
Unit 7 (Short)	E-Safety – Risks and Benefits of Being Online

- I can explain the consequences of sharing too much information about myself online.
- I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.
- I can explain the consequences of spending too much time online or on a game.

For this unit, simply utilise Purple Mash's unit 6.2 which contains all the lesson plans and content that's required to support this learning.