



Computing

User Guide





Welcome to Twinkl Planit Computing!

This is our scheme of work for the 2014 National Curriculum for computing.

To help save you time, we have put together complete unit packs for the National Curriculum. These packs have been developed by teachers and designed by our creative team to provide you with everything that a non-specialist will need in one handy download.

Learning how to use technology correctly and safely provides children with knowledge and skills which will enable them to be part of a world of technology.

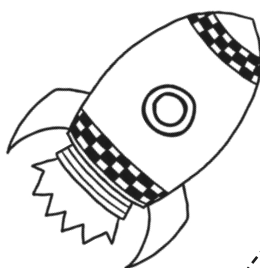
Each of the main learning aims for Computing are revisited throughout the six-year scheme, ensuring that your pupils have every opportunity to make progress in:

- learning new computing skills and applying them;
- using technology for a variety of purposes;
- developing understanding of computational thinking;
- understanding how to stay safe online and engage with the wider world;
- communicating responsibly via technology.

Each unit pack includes six detailed lesson plans containing a lesson presentation, creative differentiated lesson activities and resources, two home learning tasks, challenge cards, fact cards, an eye-catching display pack and key vocabulary cards.

This overview is your guide to **Twinkl Planit Computing** and should cover any questions that you have. If there is something you need help with, please [get in touch](#).

Love Twinkl_x



How to Use a PlanIt Computing Pack

What does the National Curriculum say about Computing?

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally

literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world."

The Learning Sequence

PlanIt Computing has been designed with non-specialists in mind: it will help to scaffold your computing curriculum and make teaching and learning computing an easy, fun experience for pupils and teachers alike. The units are intended to be taught in a linear fashion, beginning in year 1 and following through to year 6, so that skill points already taught are referenced, reinforced and recapped while you build new knowledge and skills. For example, you will find that a Key Stage 1 word processing unit is designed to provide the foundations for word processing units found in the Key Stage 2 area.

Whilst the National Curriculum does not stipulate specific expectations for each year group for computing, we have planned the aims for both Key Stages 1 and 2, to allow for progressive challenge and depth from one year group to the next.

Computing

Year One

Year Two

Year Three

Year Four

Year Five

Year Six



Scratch:
Animated Stories



Website
Design



Spreadsheets



Kodu Programming



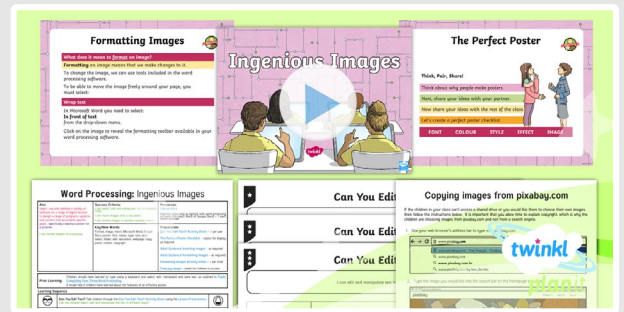
Film-Making



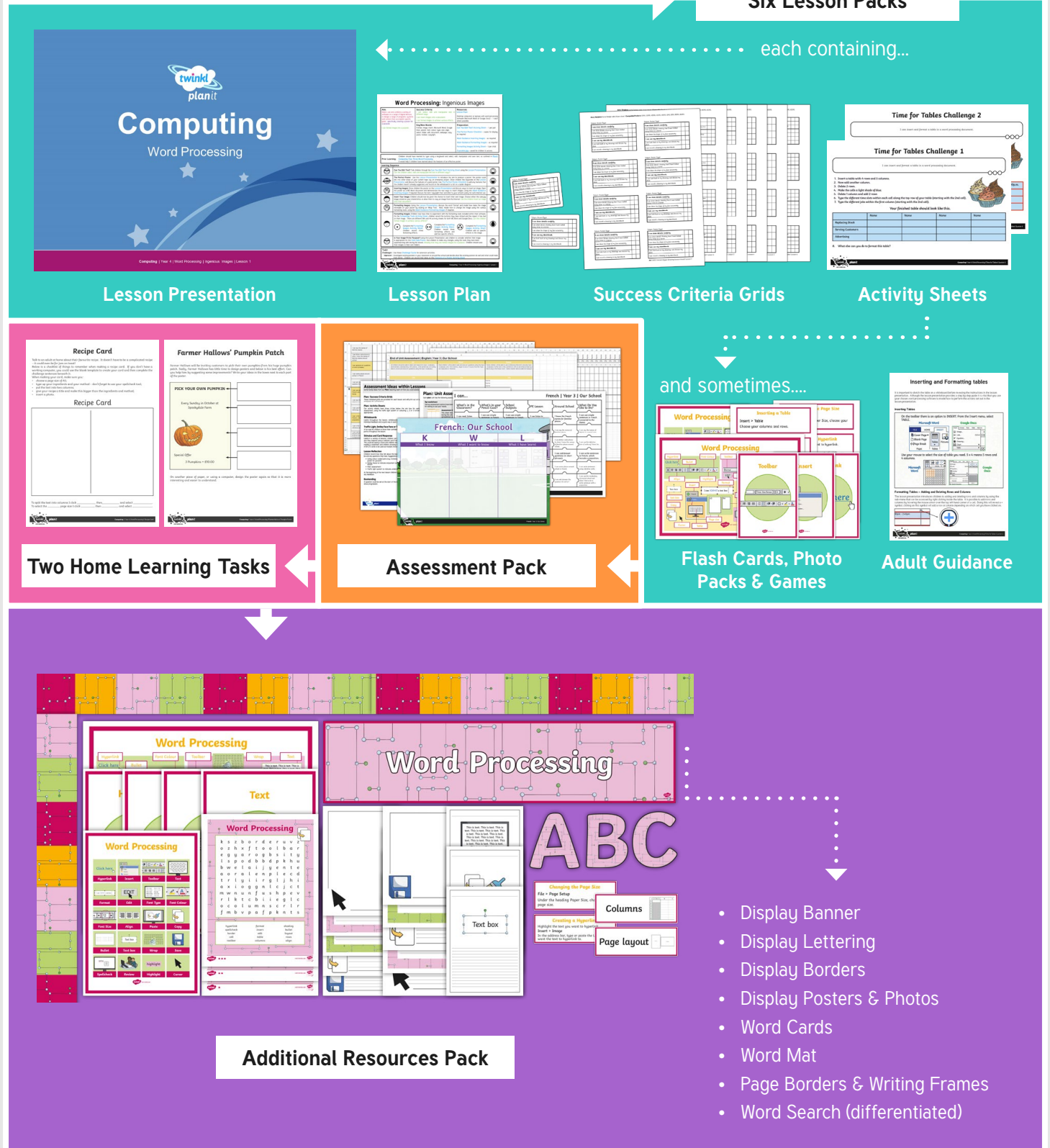
Using and
Applying Skills

What Is in a PlanIt Computing Unit Pack?

Each unit pack includes six detailed lesson plans containing a lesson presentation, creative and differentiated lesson activities and resources, two home learning tasks, challenge cards, fact cards, an eye-catching display pack and key vocabulary cards. Throughout each unit, whenever a new skill or piece of software is presented, children are given repeated opportunities within the unit to practise the basic skills learnt. Those points will then be recapped in later lessons and units, including in later year groups.



Six Lesson Packs



What Goes into a PlanIt Computing Lesson Plan?

Each lesson pack contains a lesson plan as a pdf document. Text can be copied from the plan to your own planning format. The lesson plan is split into four main sections to help with your planning.

Unit Name

Lesson Name

Resources: Any resources you need will be listed here.

Preparation: Here you will find everything that needs preparing before the lesson.

Aim: The text in red is the 2014 NC aim. The purple text puts it into the context of the lesson and the green text gives you a child friendly aim for the lesson.

Learning Sequence: Takes you through the lesson step by step.

These titles in bold match the relevant slides in the lesson presentation.

Our icons tell you the type of activity involved for each part of the lesson. You can find out more about these at the bottom of the page.

Task/it: This section gives you additional ideas as well as cross-curricular links that you could use to extend the lesson, to challenge individuals or plan another lesson.

Word Processing Ingenious Images

<p>Aim: Select, use and combine a variety of software on a range of digital devices to design a range of programs, systems and content that accomplish specific goals, specifically creating a poster for a purpose.</p> <p><i>I can format images for a purpose.</i></p>	<p>Success Criteria:</p> <p><i>I can select, edit and manipulate text in different ways.</i></p> <p><i>I can insert images onto a document.</i></p> <p><i>I can format images to achieve various effects.</i></p> <p>Key/New Words: Format, image, insert, Microsoft Word, Google Docs, poster, font, colour, type, size, align, select, folder, edit, document, webpage, copy, paste, toolbar, copyright.</p>	<p>Resources: <u>Lesson Pack</u></p> <p>Desktop computers or laptops with word processing software (Microsoft Word or Google Docs) - 1 each where possible.</p> <p>Preparation:</p> <p><u>Can You Edit Text? Activity Sheet</u> - 1 per pair</p> <p><u>The Perfect Poster Checklist</u> - copies for display as required</p> <p><u>Adult Guidance Inserting Images</u> - as required</p> <p><u>Adult Guidance Formatting Images</u> - as required</p> <p><u>Formatting Images Activity Sheet</u> - 1 per child</p> <p><u>Cupcakes.jpg</u> - saved for children to access</p>
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Prior Learning: Children should have learned to type using a keyboard and select, edit, manipulate and save text, as outlined in PlanIt Computing Year Three Word Processing. It would help if children have learned about the features of an effective poster.

Learning Sequence

<p>Can You Edit Text? Talk children through the <u>Can You Edit Text? Activity Sheet</u> using the <u>Lesson Presentation</u>. Can the children select, edit and manipulate the text in different ways?</p> <p>The Perfect Poster: Use the <u>Lesson Presentation</u> to introduce the aim to produce a poster; the poster could link into other areas of your current topic e.g. an enterprise project. Show children the keywords on the <u>Lesson Presentation</u> and discuss the features of a good poster. Use <u>The Perfect Poster Checklist</u> to add any features that the children haven't already suggested, and record on the whiteboard in a list or a spider diagram.</p> <p>Inserting Images: Show children the poster on the <u>Lesson Presentation</u> and discuss ways to insert an image. Open the poster as a MS Word document and demonstrate the two ways to insert images, using the <u>Adult Guidance Inserting Images</u> if required. Discuss the term 'copyright-free' and refer to your school's policy for safe internet use.</p> <p>Insert Your Image: Children should now be given the chance to insert their own image. Choose either the <u>cake.jpg</u> image stored on your shared drive, or allow them to copy an image from the Internet. Can the children insert an image onto their document?</p> <p>Formatting Images: Using the <u>Lesson Presentation</u>, discuss the word 'format' and model how make the image moveable on your poster by clicking on 'Wrap Text'. Next, model how to change the image using the various formatting tools, using the <u>Adult Guidance Formatting Images</u> if required.</p> <p>Formatting Images: Children now have time to experiment with the formatting tools included within their software. On the <u>Formatting Tools Activity Sheet</u>, children record the buttons they have clicked and the impact it has had on their image. There are different MA and HA activity sheets for both MS Word and Google Docs. Can the children format images to achieve various effects?</p> <p>Complete the Formatting Images Activity Sheet. Children record three formatting effects and add two specific effects.</p> <p>Complete the Formatting Images Activity Sheet. Children add six specific effects to the image.</p> <p>Is Your Image Fit for Purpose? Using the <u>Lesson Presentation</u>, ask children to consider whether their image is appropriate for the <u>Cake Sale Poster</u>. Ask children to make any changes, using the tools they have been experimenting with during the lesson, showing that they can format images for a purpose. Children should save their images in their own folders.</p>	<p>Task/it:</p> <p>Challenge: Use these <u>Challenge Cards</u> for extension activities.</p> <p>Improve: Investigate existing posters in your classroom or around the school and decide what the existing posters do well and what could make them better. Children can record their ideas on this <u>Features of a Poster Activity Sheet</u>.</p>
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twinkl planit Computing | Year 4 | Word Processing | Ingenious Images | Lesson 1

Prior Learning: Anything that would be helpful for the children to have already learnt will be noted here.

Differentiation is indicated by 1, 2 or 3 stars.

The egg timers tell you how long that part of the lesson should last; short, medium or long. If you don't have time for the full lesson, this might help you select individual parts.

Footer: This tells you which unit the lesson comes from and where the lesson comes within the unit. All footers follow this pattern:

Subject | Key Stage | Unit Name | Lesson Name | Lesson Number

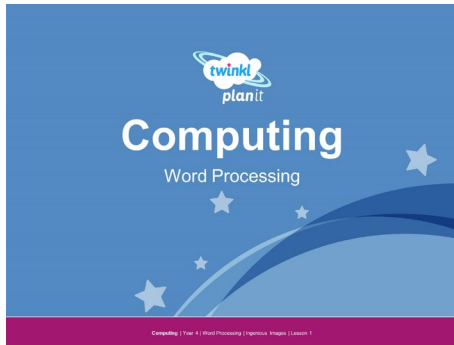
Lesson Plan Icons

Duration of Activity	Short 	Medium 	Long 	Individual	Talk Partners
Differentiation	Low 	Medium 	High 	Pairs	Mental & Oral Starter (Math units only)
Assessment		Or look for green text in the learning sequence.			Teacher Led
				Whole Class	

What Goes into a PlanIt Computing Lesson Presentation?

Each lesson pack has a lesson presentation. The presentation frames the learning sequence as outlined on the lesson plan, providing information, posing questions and setting tasks.

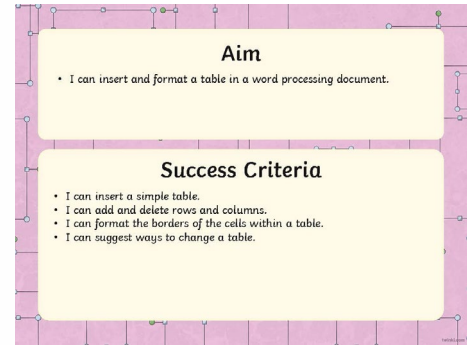
Each presentation has the same 3 slides at the beginning;



Slide One: PlanIt title slide with the subject and the unit title. The footer of the slide will match the lesson plan.



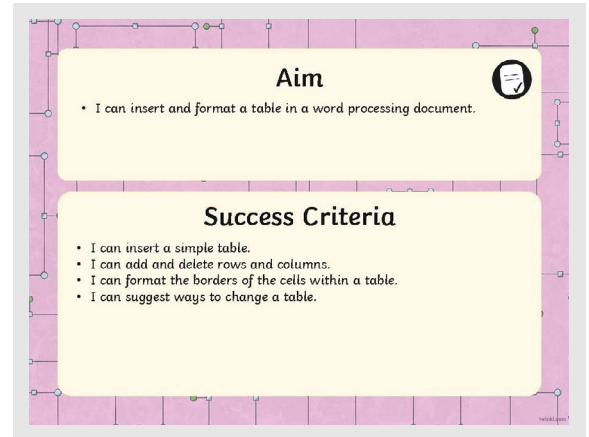
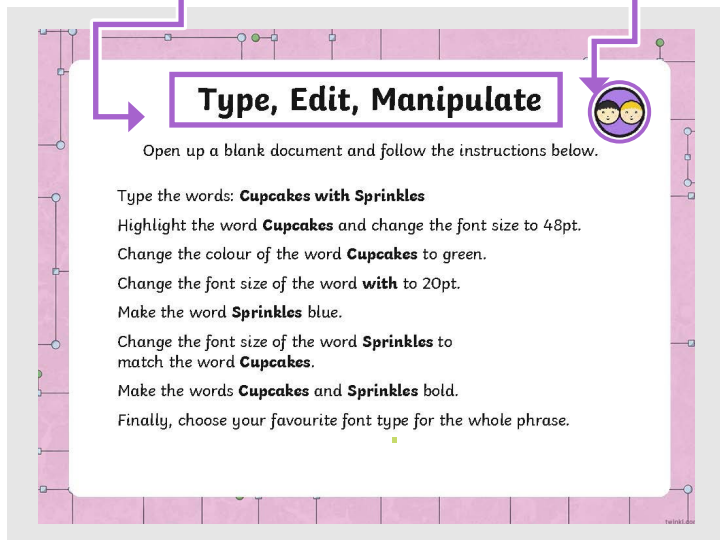
Slide Two: Child-friendly title slide. You might choose to start your lesson with this slide.



Slide Three: Child-friendly aim and success criteria.

Slide titles in the lesson presentation correspond with the bold titles in the learning sequence in the lesson plan.

You'll find the corresponding icon in the top right-hand corner. There is a key to the icons at the bottom of the page.



Every presentation will repeat the success criteria slide at the end of the presentation to facilitate the children's assessment.

Some presentations include this message:

This lesson requires external documents to be opened during the lesson presentation. Viewing the slideshow using 'Reading View' will allow you to minimise and re-open the slideshow at the correct slide.



Using this feature of Microsoft PowerPoint will help you to model software functions and then return to your lesson at the correct point.

Lesson Presentation Icons



Individual



Group Work



Talk Partners



Assessment



Pairs



Whole Class



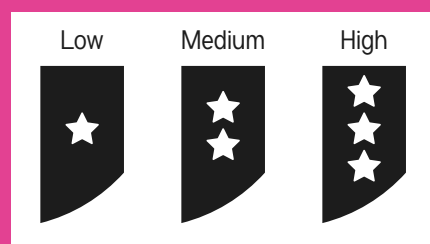
Mental & Oral Starter
(Math units only)

Our Activity Sheets

Our activity sheets are provided in .pdf format and .doc format.

Differentiation is indicated by the star system.

Activity Sheet Icons



Formatting Images

I can format images to achieve various effects.

Record the format effects that you have applied to your image in the table below.

Buttons Clicked	What happened to the image?	Does this make the image better?	Did you click on the undo button?
Colour -> Green	The image became green.	No because all the colours on the cake disappear.	Yes

Challenge	Buttons clicked	Would you keep this effect?
Give your image a black border.		
Recolour your image purple.		

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Computing / Unit 4 / Lesson 1 / Planning / Lesson 1 / Lesson 1

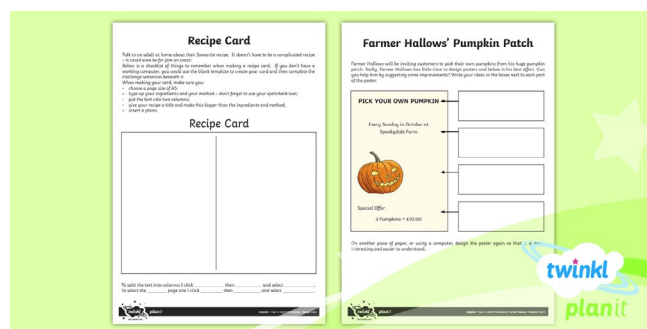
This box is for the lesson aim. An editable version where you can add your own aim is also provided. The three circles are for optional self or teacher assessment.

e.g. traffic light colours or shading 1, 2 or 3.

The footer will let you know which area and lesson the activity sheet is from.

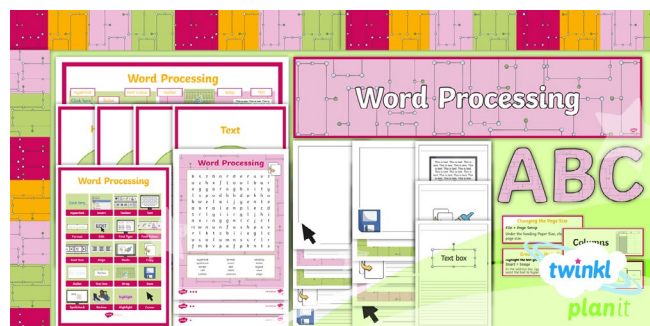
Home Learning

For each curriculum aim, home learning activities are provided.



What's in an Additional Resources Pack?

Each unit features a PlanIt Computing additional resources pack, which has everything you need to teach the range of skills covered in that unit. Each pack contains different resources ideal for the year group concerned. This pack also includes a wide range of vocabulary cards and posters to create an eye-catching display in your classroom.



Teaching Computing to Children

Top Tips for Non-Specialists:

Provide lots of opportunities for cross-curricular learning. Although our units are designed to work as standalone, discrete sets of planning, most can be used to enhance a topic-based curriculum.

Do lots of practise! You don't need to be teaching a computing lesson to let children access computers or tablets. If your school resources allow, use equipment to research or record work in a variety of ways – this can give children great opportunities to practise their basic skills, meaning that more focus can be given to computer science and digital literacy in dedicated computing sessions.

You don't need to be a professional programmer! If you are new to many elements of the current curriculum or feel anxious about your own skill level, tell the children that you are going to learn alongside them. Although most children will enjoy applying new skills, for some it can be a cause of panic; realising that the teacher doesn't know everything can be very empowering for learners!

Don't feel like you have to create coding geniuses. Your focus should be on making sure that children have basic algorithmic thinking and start to understand some of the language of coding.

Some children will be much further ahead and many will have had opportunities to use a wide range of devices and software outside of school; allow them opportunities to extend their learning or instruct others (including you)!

Don't be scared by terminology. Computing terms often have a very specific meaning in the context of computing but are unlikely, especially in the primary phase, to be quite as complicated as they sound. Use the correct vocabulary as often as you can in the classroom.

Get creative! There are so many ways to have fun with computing! Use what you have in school: Bee-Bots, laptops or tablets will be found in many schools, but don't be afraid to teach 'unplugged' sessions too. Find out what's available for hire to schools in your area or even swap between schools.

Meet the Teacher Team behind PlanIt Computing

Helen

From an inner city school in London to a village school in Yorkshire, Helen is a former SENCo who has enjoyed 13 years teaching 6 to 11 year olds, focusing on a creative, cross curricular approach.



Steve

With 15 years' primary teaching experience, Steve has enjoyed roles in Senior Leadership, assessment and mentoring. Specialising in English and computing, He is also an author and school governor.



Emma

Emma has taught from Nursery to Year 6 in Yorkshire and is a Primary Computing Curriculum Coordinator; she has worked at the University of Leeds, delivering creative curriculum approaches to PGCE students. She loves introducing children to new technologies and applying them across a wide range of topics in the classroom.



Tony

Tony is a primary school teacher and former deputy head teacher from West Lancashire. After 5 years as a home IT technician, Tony moved into teaching and has taught children across the key stages as an IT/Computing subject coordinator and an Online Safety champion. He enjoys encouraging pupils to experiment with computer programs and believes that teaching engaging and cross-curricular computing lessons is the best way to develop computational thinking.



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