



3 SIMPLE TIPS TO
BECOME A MORE
Confident
PROGRAMMING
TEACHER



ABOUT Nicky

Hi, I'm Nicky, the founder and director of **Nichola Wilkin Ltd.**

When I first graduated, I worked as a programmer. I was asked to train people how to use our software and absolutely loved it. I became a corporate ICT trainer, working for some large international clients around the UK. I really enjoyed training and it reminded me of my childhood dream of becoming a teacher.

I went back to university and did my PCGE in Secondary ICT and worked as an ICT teacher for a few years and then as Head of Department in a private boy's school.

As it was a private school, I no longer had to stick to the ICT curriculum and branched out into teaching the boys programming before the new computing curriculum was announced. Together, with the students, I experimented with what worked well, what helped them learn programming skills and more importantly what didn't help them.

Unfortunately, I broke my lower back when snowboarding and was forced to leave teaching whilst I focused on my health.

My teacher friends still needed my resources and persuaded me to start selling them through **TES** and my own website, www.nicholawilkin.com.

I wrote a book "**Python by example: Learning to Program in 150 Challenges**" which gives pupils a practical way to learn programming without all the waffle. I'm very proud that my book has consistently been in the top 0.01% of sales on Amazon since it was released, making it one of the most popular programming books written specifically for students on the market.

I started running training sessions to help teachers become more confident in teaching programming. It was great, I could speak to teachers and find out the real struggles they were experiencing in their classrooms and help them find ways of overcoming them. And then the Covid pandemic arrived and all face-to-face training stopped overnight.

So, never one to give up on challenges, I went on-line and created the "**Teach Python Programming With Confidence Masterclass**". This online training course has helped teachers all over the world find their confidence and passion in teaching programming.

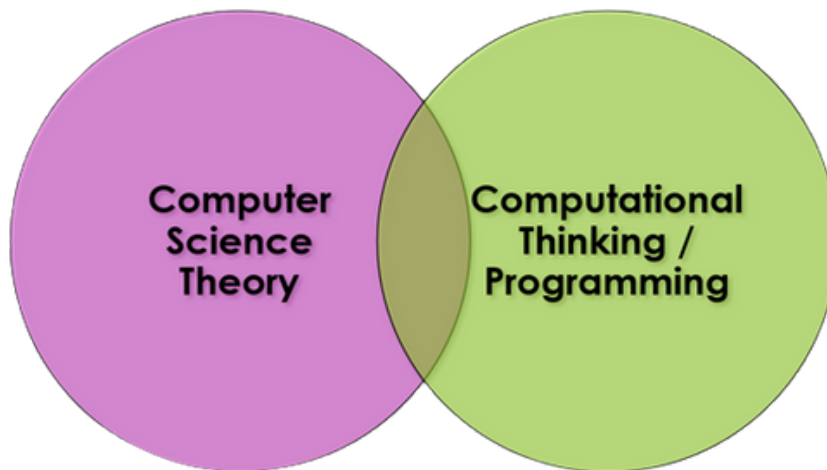
Nicky 

Learning how to
teach
programming well
is the #1 way to
improve the
confidence of
computer
science
teachers.



Why focus on programming skills?

Computer science can be split into 2 distinct disciplines. The computer science theory can be taught in much the same way as other subjects and so doesn't usually cause too much of a concern for non-specialists. However, the computational thinking and programming skills involve a different skill set which can be daunting from some teachers including non-specialists.



How do you feel when a pupil asks you to fix their program?

How would you like to feel?

What difference will feeling that way make to your teaching?

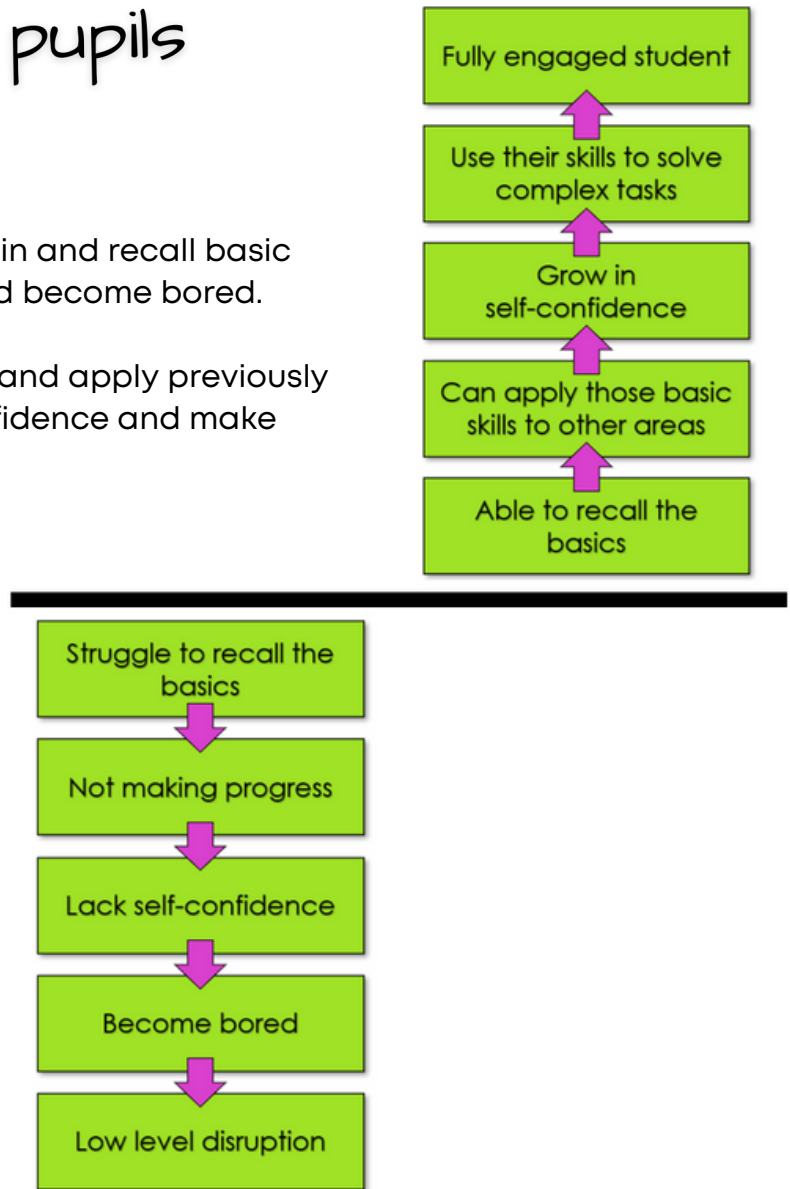
Are you committed to making a change?

How to keep pupils engaged?

Pupils who are unable to retain and recall basic skills lack self-confidence and become bored.

Pupils who are able to retain and apply previously taught skills, grow in self confidence and make progress.

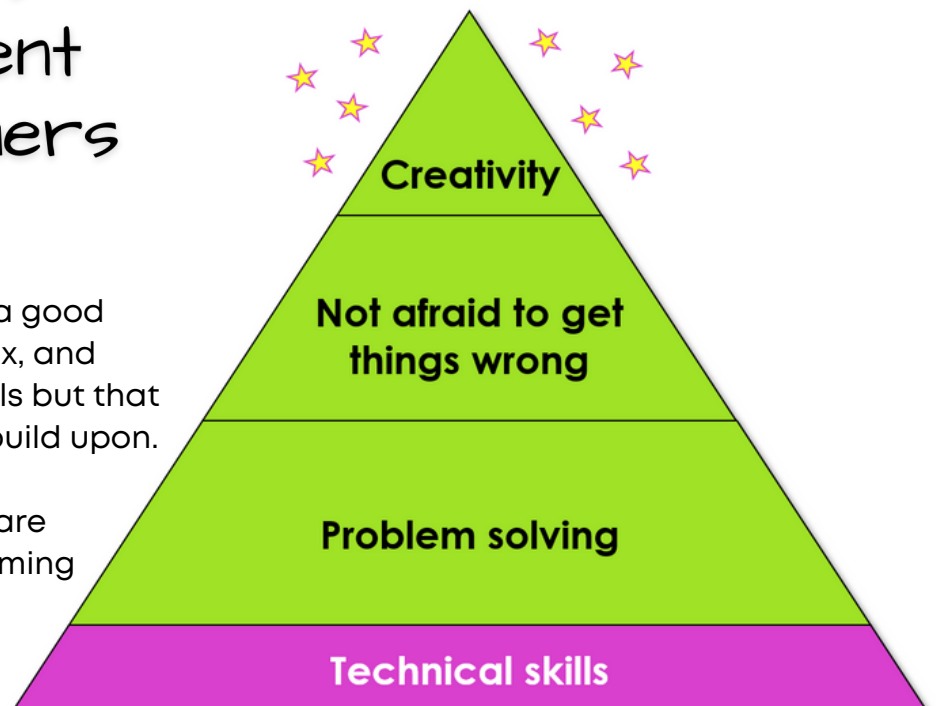
You introduce a new skill



What traits do confident programmers have?

Programmers do need a good understanding of syntax, and basic programming skills but that is just a foundation to build upon.

If you want pupils who are engaged with programming they must be able to develop other "soft" skills.



1

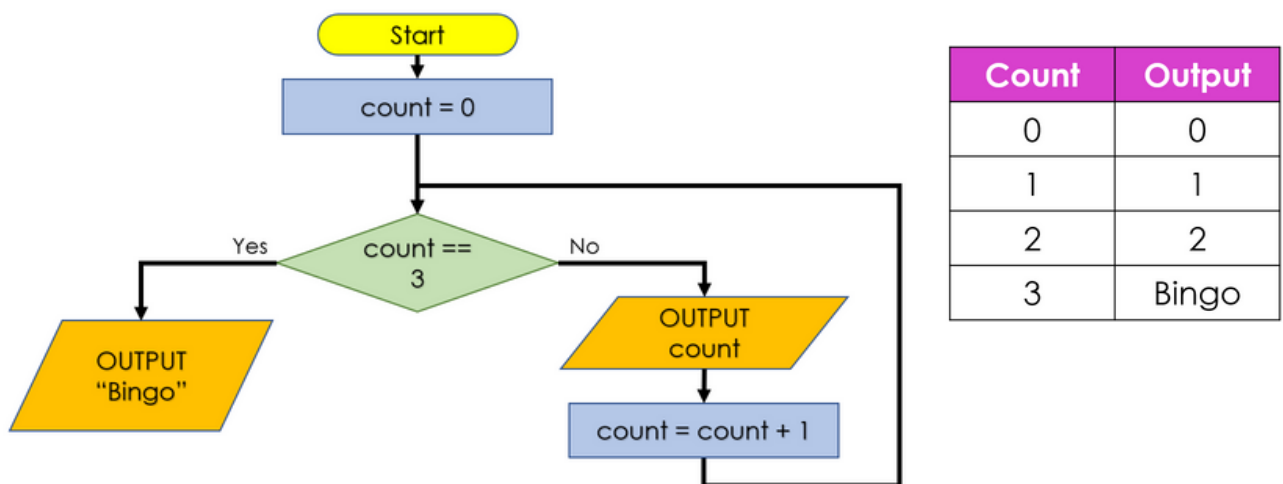
Use more flow charts and trace tables

Theory become less abstract. Take, for example, this range statement that a lot of pupils struggle to understand. If you only display the syntax it often makes little sense to them.

```
for count in range(0, 3):  
    print(count)  
    print("Bingo")
```

But if you explain the program using the range statement, step by step, using a flow chart and trace table it helps students visualise what is happening.

Students find flow charts a great way of understanding the logic behind new skills you're teaching them. You should break down the flow charts so they only show a small section at a time as you explain it and use the trace table to let them see the variables and outputs. Students will then feel less daunted about using flow charts and trace tables to plan their own programs later.



Do you use flow charts and trace tables enough in your lessons to explain new skills?

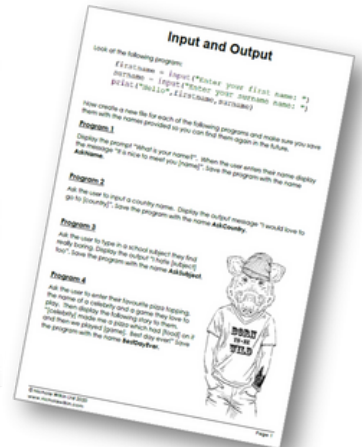
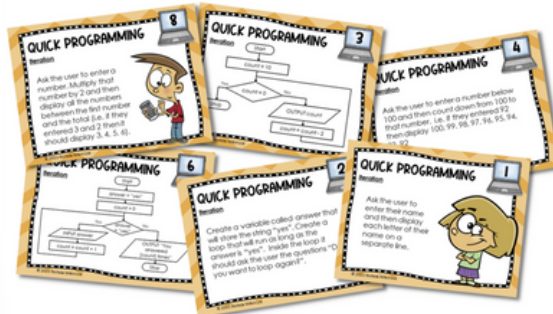
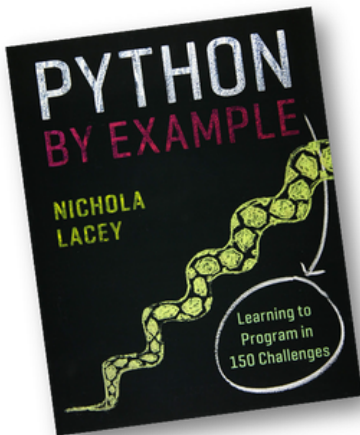
Are flow charts and trace tables currently being used as a useful tool or are they just something to be learnt?

How can you introduce more flow charts and trace tables into your lessons?

2

Give LOADS of programming practice

Helps pupils of all abilities.



Giving students loads of practise helps embed new skills and allows them to develop the "soft" skills that contribute towards making confident programmers. I found some of the most productive programming lessons were not when students are being taught a new skill but were given the time to practice creating programs to recap skills they have previously been taught. On the "**Teach Python Programming With confidence Masterclass**" you get over 100 programming challenges that you can use with your classes.

Do you currently give ALL your pupils enough practice of a new skill before you move on?

Do your students feel secure in the basics or do they often forget what you have previously taught them?

What would your lessons look like if your students could easily recall previous skills when you introduce a new skill?

Where are you going to get enough practice exercises?

3

Scaffold ideas in small chunks

Helps pupils identify the individual skills and apply them as needed.

Teacher's have told me that they felt they had to demonstrate good programming practice right from the start and often include subprograms in even the simplest of programs. The problem with this is students are often left confused on the skills as they are focussing on too many things at once. this is information overload.



Instead allow pupils to focus only on the skill you want them to learn. Good programming practice can wait until later.

In the "**Teach Python Programming With confidence Masterclass**" you get a complete scheme of work including lessons and activities to help you deliver 20 lessons which scaffold the skills in small chunks.

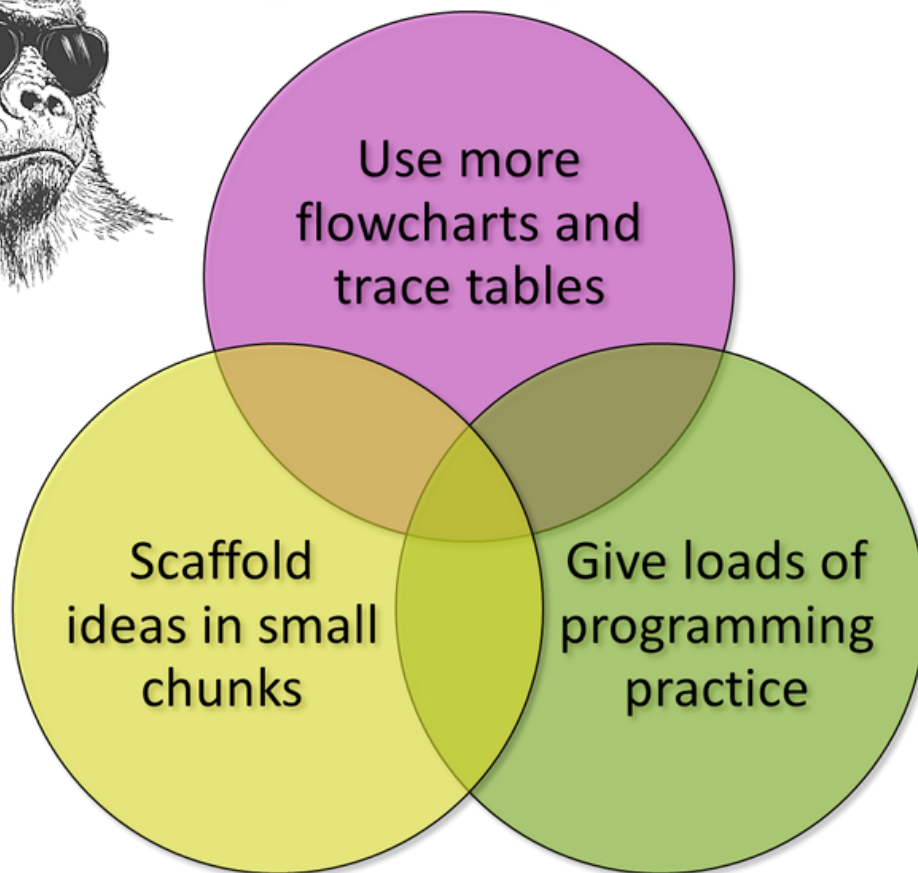
What skills do your pupils currently, frequently forget?

How can you break down and recap skills in a more pupil friendly way?

Do you commit to focussing on teaching one new skill at a time?

Do you commit to giving pupils more time to embed those new skills before moving onto something new?

Becoming a more confident programming teacher



What would being a more confident programming teacher do for your mental wellbeing?

Do you commit to make the changes to become a more confident programming teacher?

Help Your Pupils To Program With Ease As You Create Outstanding Python Programming Lessons

Join the 100s of teachers who've revolutionised the way they teach Python programming. This is the only high-quality training course specifically written for teachers that covers everything you need to know and includes free teaching resources to save you hours of planning and preparation time



- ★ Discover how you can genuinely enjoy teaching Python programming by adapting the techniques to meet your personal teaching style
- ★ A proven way of scaffolding together topics that helps your pupils progress quickly and really understand the key skills
- ★ Over 100 ready-to-use programming challenges you can use in your classroom that allow you to assess progress and embed new skills

Work through the training at your own pace to fit around your own busy schedule. Watch the videos, read the course notes and solve the programming challenges.

Visit the following link now to find out more...

www.nicholawilkin.com/training