

Unlocking Digital Potential A Hands-on Coding Workshop

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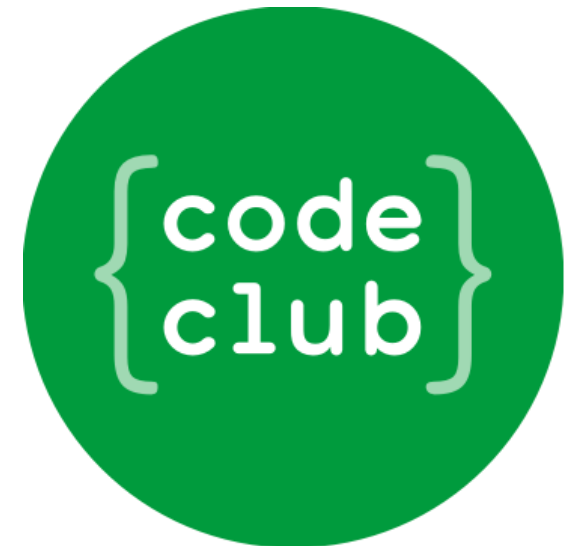
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CARDIFF
UNIVERSITY

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Why run a code club?

- Looks of amazement and empowerment from your learners.
- Joy of parents when they see what their children have done.
- Inspire the first steps in a journey to becoming a software engineer.



What does it take to run a code club?



Interest and motivation – appeal to curious audiences.



Computers; the most straightforward medium of coding.



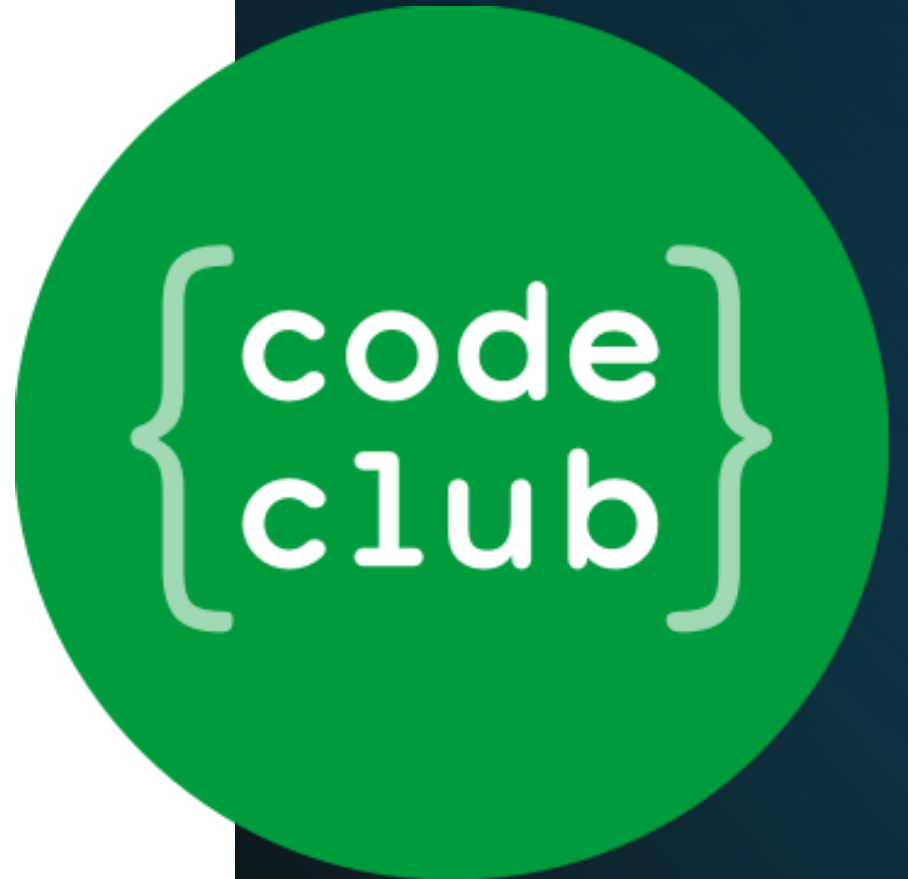
Anything else would depend on specific content.



There are loads of resources for free!

Key points for running code clubs...

- Keep it fun
 - For the children
 - And for you!
- Make sure all involved staff have a DBS check.
- Be careful about safeguarding – Code Club will provide training
- Attention is scarce, so make explanations snappy and short.
- Patience is key, not everyone will get it first time around.



Common difficulties



**Equipment that doesn't allow
flexible usage**

Firewalls
Installing software



**Learners might lose interest halfway
through.**



Internet access and speeds.

Reflections on 8 years of Code Club

- Kids make you laugh.
- Have met some very inspiring and talented children.
- Learning programming skills.

Quote from a former Code Club alumni

- I was learning Python on my own, the book was out of date and the code would not compile and kept throwing errors...
- I walked into a Code Club and got the help I needed.
- I looked around the room and saw it was my tribe...

Can you do this online?

- Yes, but it has its challenges
- Relying more on online tools
- Harder to diagnose problems on students' side
- Thus, lessons can be a bit slower.



Any questions before we
go through the demo?

Let's explore some sample lessons

- Scratch activity:

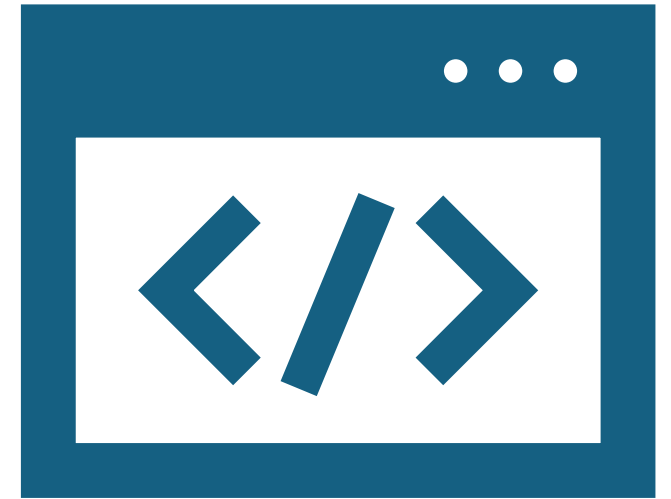
<https://projects.raspberrypi.org/en/projects/lost-in-space>

- Python Project activity:

https://github.com/brennanpincardiff/rhiwbina_codeclub_projects/blob/master/python_shapes.md

- Microbit lesson:

<https://projects.raspberrypi.org/en/projects/music-player>



Times up... Any final questions?

Free and useful resources

- Raspberry Pi/Code Club Projects site:
<https://projects.raspberrypi.org/en>
- Trinket for coding online
(<https://trinket.io/python>)
- Google CoLab
(<https://colab.research.google.com/>)
- Github Code spaces
(<https://github.com/features/codespaces>)
- The links for today:
https://github.com/brennanpincardiff/rhiwbina_codeclub_projects/blob/master/BIG_session_plan.md

