

The Bongles and The Crafty Crows

Practitioner Guide

Links to the Scottish Curriculum for Excellence

Age Range: Early and First Level Curriculum for Excellence

Technologies: Digital Literacy - Cyber resilience and internet safety

Early Years

- o I can explore, play and communicate using digital technologies safely and securely.
- o Demonstrates an understanding of the importance of passwords and passcodes.

First Level

- o I can extend my knowledge of how to use digital technology to communicate with others and I am aware of ways to keep safe and secure online.
- o Demonstrates an understanding of the need for strong passwords.

Links to the National Curriculum

Key Stage 1

[National Curriculum - Computing key stages 1 to 2 \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974907/EYFS_framework_-_March_2021.pdf)

'use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.'

Statutory Framework for Early Years Foundation Stage

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974907/EYFS_framework_-_March_2021.pdf

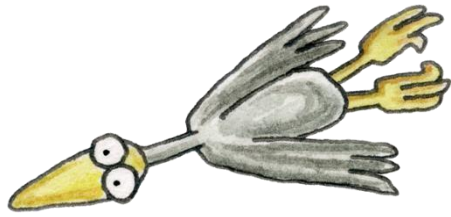
For the learning activities we have divided the book into three sections. Each section starts with a read-along with questions for a class discussion, and this then leads into learning activities.

There are alternative activities for each section, so that the teachers and parents can keep referring to the book and use different activities to reinforce various aspects of the learning content in a way that will suit different children's needs and learning styles.

The first section we cover the concept of keeping treasure secure.

The second section we cover passcodes, shoulder surfers.

The third section we learn about passcodes and passwords. We take a look at how to create strong passwords using 'three random words'.



Activities 1, 5, 8 – Read and Respond Activities

The read and respond activities punctuate the three sections in the book. They introduce new concepts from the book and head up the learning activities.

These questions and discussion points are designed for adults to lead on from during the learner interactions.

The aim is to:

- analyse the story with relation to keeping belongings safe and secure
- encourage the children to talk about their opinions and thoughts on keeping belongings safe and secure by using difficult to guess passcodes and passwords

Section 1

Activities 2, 3, 4 – Keeping Treasure Secure

Key words to use are:

- secure
- hidden
- belongings
- protected

The children will need a certain amount of understanding about what it means to protect or look after things that are important.

Activity 2

In this activity children will create a Bongle character and consider which of the Bongles' belongings they'd put in a password protected crate to keep them secure. This links to the first part of the book, where the Bongles claim their different crates of treasure.

You want to encourage the children to consider how they'd keep important items protected. The activity can lead to a discussion about the children's choices and reasons why they've made certain decisions.

Activities 3 and 4

These are alternative treasure activities where the children consider the importance of keeping their own items secure, rather than the Bongles' items.

Section 2 - Passcodes

Activity 6

Refer to the subject matter factsheet for a definition of passcodes.

You want to encourage the children to consider real life scenarios when they have seen:

- numerical padlocks being used to lock physical belongings
- numerical passcodes to lock digital devices

Key words and concepts to use are:

- passcode
- safe and security
- private
- random numbers

Activity 7

Refer to the subject matter factsheet for a definition of shoulder surfers.

You want to encourage the children to consider:

- what makes a passcode insecure – as in easy to guess
- what makes a passcode more secure and difficult to guess
- the importance of hiding the inputting of their passcode from shoulder surfers

You also want to reinforce that idea of not sharing a passcode with anyone but a trusted adult.

Key words to use are:

- predictable patterns
- consecutive order
- more secure
- insecure
- random
- shoulder surfers

Section 3 - Passwords

Activity 9

Refer to the subject matter factsheet for a definition of passwords.

You want the children to:

- learn to distinguish between a passcode and password
- identify where passcodes and passwords are used
- to consider real life scenarios when they have seen passwords and passcodes being used

You want to encourage the children to create secure passcodes.

Key words to use are:

- password
- private
- sharing
- random

Activity 10

This is an alternate activity that suggests running the classroom room game in Activity 9 - as part of a PE class.

Activity 11

This is an extension activity that asks the children to take pictures / make notes of real-world passwords, passcodes, numerical locks.

Three Random Word Passwords

Activities 12,13,14

Refer to the subject matter factsheet for definition of 'three random word' passwords.

The activities in this section cover the same ground, you can choose which activity to run with your class. You can also run these activities at different times over the course of an academic year to reinforce the learning.

You want to encourage children to:

- create random passwords
- understand the importance of a more secure password
- memorise their password
- keep their password secret and only share with a trusted adult

Key words to use are:

- hidden
- sharing
- memorable
- random

Activity 12

Generate their own 'three random word' passwords using three random objects pulled from a feely bag.

Activity 13

Generate their own 'three random word' passwords using dice and word cards.

Activity 14

Generate their own 'three random word' passwords using an 'origami chatterbox'.



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Subject Matter Factsheet

The subject matter factsheet is to help prepare teachers and parents for using the book with their children. It will give them a slightly broader understanding of cyber security, so they feel comfortable answering any questions that the children may have.

Passcodes

- A passcode is a numeric sequence used to authenticate a user on a laptop, desk computer or electronic device.
- The word 'passcode' is sometimes used synonymously with 'password' but technically, a passcode only contains numbers.
- Passcodes are a way for you to protect your devices. They are usually 4 to 6 digits and are used to grant access to the device.
- Passcodes to unlock devices are similar to the codes you use for an ATM bank card or a debit card. The code for your bank card is known as your Personal Identification Number or PIN.

Did you know?

There are 256 combinations using numbers one, two, three and four. If children were to use numbers between zero and nine to create a four-digit passcode, they could create up to 10,000 combinations.



Shoulder Surfer

Shoulder surfing is a simple method for spying on unsuspecting victims to collect personal data, such as:

- passwords
- Personal Identification Numbers (PINs)
- access codes
- other login information

There are two types of shoulder surfing:

- the first type of shoulder surfing is when direct observation is used to obtain access to data. This is when a person looks directly over the person's shoulder to observe when they are entering data, such as their passcode or PIN

- in the second type, a person's actions are first recorded on video. Someone can then analyse these videos in detail and obtain the information

Tips for inputting a passcode, PIN, access code to protect yourself from shoulder surfing:

- you should cover the input device with your hand when entering your PIN
- at cash machines you should also check for poorly mounted or suspicious-looking parts

Three Random Words

- the National Cyber Security Centre define a password as a 'series of characters'
- weak passwords are easy to guess and can be cracked in seconds, strong passwords are difficult to crack and are more secure
- the longer and more unusual your password is, the harder it is for a cyber-criminal to crack
- a good way to make your password difficult to crack is by combining 'three random words' to create a password, for example, app1enemobiro
- the NCSC policy is 'three random words', however we have to acknowledge that many account providers have policies that require other characters, these policies can be combined e.g. app1eNemo#biro
- a three random word password can make your devices more secure, although nothing can ever be 100% secure
- by using a password that's made up of three random words, you're creating a password that will be long enough and strong enough to keep the criminals out, but easy enough for you to remember

The 'Bongles and The Crafty Crows' book and learning activities deal only with 'three random words' passwords. The introduction of special characters into passwords is not covered here.

Additional Resources

There is lots more useful information for reading around the subject of cyber security, on the NCSC's website. We would suggest exploring Cyber Aware:

<https://www.ncsc.gov.uk/cyberaware/home>

and the Individuals & Families pages:

<https://www.ncsc.gov.uk/section/information-for/individuals-families>

and for information about the security of educational settings you can start here:

<https://www.ncsc.gov.uk/section/education-skills/cyber-security-schools>

You can find guidance around Three Random Words passwords from the National Cyber Security Centre (NCSC) here: <https://www.ncsc.gov.uk/collection/top-tips-for-staying-secure-online/three-random-words>

If you want to find out more about why the 'three random words' technique works, you can read this [blog by one of the NCSC's technical experts that further explains our thinking](#).

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