St. Joseph's Primary

Digital Skills Planner
Second Level

Searching, processing and managing information responsibly

Experiences and Outcomes	Education Scotland Progression Framework	Skills	P5			P6			P7		
			T1	T2	T3	T1	T2	T3	T1	T2	T3
I can use digital technologies to search, access and retrieve information and are aware that not all of this information will be credible. **TCH 2-02a**	Learners have the knowledge and understanding to use a range of digital technologies and software to develop skills in creating multimedia, capturing and manipulating sounds, text and images in a variety of ways and contexts. Learners have the knowledge and understanding to collect, analyse and present data and information.	● Can use a range of devices, applications and software to capture/create media and modify images, sound and video.				T1			(cyan)		(yellow)
		● Is able to use age appropriate digital tools (e.g. tablet apps and software applications) independently to share, present and communicate their learning creatively.									(yellow)
		● Is able to store, share, evidence profile learning electronically using an online cloud based service.							(cyan)		
		● With some support, can collect and analyse data from multiple devices/applications and combine these to create a publication, presentation of information resource.									(yellow)

Suggested Resources

- Digital devices (i.e. tablets, laptops, computers, cameras, microphones) and applications for media capture and editing
- Microsoft Office, GLOW (office tools)
- GCC based projects (Determined to Animate, Determined to Make Movies) Serif software
- **Doorway Typing** http://doorwayonline.org.uk/texttype2.html   This resource teaches how to touch type
- **Dancemat Typing** www.bbc.co.uk/schools/typing/levels/level1.shtml   Keyboard typing training with a clear progression of skills. This can be an effective warm-up activity to compliment other ICT experiences.
- **Tagxedo** www.tagxedo.com/   Tagxedo takes Wordle a step further, allowing users to shape their word clouds. Users can upload their own picture or photo to design.
- **Comic Life** A great tool for making comic strips.
- Microsoft Publisher
- Microsoft Word
- **Pixlr** http://www.pixlr.com/   A web based application for editing digital images. There are three levels of complexity and learners can have opportunities to explore the different functions. The easiest setting is suitable for second level.
- **Shape Collage** It teaches learners how images can be used to make interesting graphics.
- **Incompetech Royalty Free Music** http://incompetech.com/music/royalty-free/   A great resource to find backing tracks to animations or mini-movies.
- **SoundBible- Free Sound FX** http://soundbible.com/free-sound-effects-1.html   Great for spicing up animations or mini-movies.

- One drive
- Google Drive
- Google Sites

Second Level

Using digital products and services in a variety of contexts to achieve a purposeful outcome

Experiences and Outcomes	Education Scotland Progression Framework	Skills		P5			P6			P7		
				T1	T2	T3	T1	T2	T3	T1	T2	T3
I can extend and enhance my knowledge of digital technologies to collect, analyse ideas, relevant information and organise these in an appropriate way. **TCH 2-01a**	Learners have the knowledge and understanding to use a range of digital technologies and software to develop skills in creating multimedia, capturing and manipulating sounds, text and images in a variety of ways and contexts. Learners have the knowledge and understanding to collect, analyse and present data and information.	● Can use a range of devices, applications and software to capture/create media and modify images, sound and video.									■	■
		● Is able to use age appropriate digital tools (e.g. tablet apps and software applications) independently to share, present and communicate their learning creatively.										■
		● Is able to store, share, evidence profile learning electronically using an online cloud based service.								■		■
		● With some support, can collect and analyse data from multiple devices/applications and combine these to create a publication, presentation of information resource.										■

- Survey Monkey www.surveymonkey.com/mp/education-surveys/ This resource allows you to create a set of questions for a class survey. It then has the ability to analyse and display the data for you to interpret. Users need to register (free) before using
- **Maths is Fun** www.mathsisfun.com/data/data-graph.php This website allows users to input data into a table, then quickly change to graphs or charts.
- Microsoft word
- Microsoft Excel
- *Analysing* **Topmarks Data Handling:** www.topmarks.co.uk/interactive.aspx?cat=28 A fantastic range of resources to support learning on graphs and charts.
- **Interpreting Data** www.bbc.co.uk/bitesize/ks2/maths/data/interpreting_data/read/1/ Step by step guidance on reading and understanding data from different sources.
- **Spreadsheet Game** www.what2learn.com/spreadsheet-game-ks3/ An interactive 'snakes and ladders game' with questions based on knowledge of how to use Excel.
- **Lunar Theme Park** www.teachingideas.co.uk/maths/files/lunarthemepark.pdf
- A problem solving task that requires children to apply their skills and knowledge of analysing data.

Second Level

Cyber Resilience and Internet Safety

Experiences and Outcomes	Education Scotland Progression Framework	Skills	P5			P6			P7		
			T1	T2	T3	T1	T2	T3	T1	T2	T3
I can explore online communities demonstrating an understanding of responsible digital behaviour and I'm aware of how to keep myself safe and secure. **TCH 2-03a**	Learners have the knowledge and understanding to demonstrate an awareness of the safety issues of giving away personal information online and can identify the differences between private and personal details that can identify them uniquely. Learners know how to report cyber bullying. Learners have developed strategies to make a strong password and keep it safe.	● Can use a range of devices to search the Internet responsibly. Knows that certain words and phrases may generate inappropriate content.									
		● Understands the importance of not sharing personal information online.									
		● Has some knowledge about preventing personal date (i.e. telephone number, bank details, Internet search history) being shared online.									
		● Manages their own passwords and pins for devices and a range of digital tools and services.									
		● Learners know to report cyber bullying to their parents/carers and school and are aware of services available to them. E.g. CEOP, ChildLine etc									

Suggested Resources
- CBBC
- Kidsmart
- NSPCC
- Childnet
- Simple Wikipedia
- Campus Cop – presentation (Based in Williamwood HS)
- Safety in the Park – P7 trip
- google Sites - teaching points
- **Wild Web Woods** www.wildwebwoods.org/popup.php?lang=en
- In order to get to e-city, you need to collect info, security, privacy and awareness tokens to reach the target.
- Who's Ya Buddy? www.thinkuknow.co.uk/8_10/control/Whos-Ya- Buddy/ Instant messaging explained in a child friendly context.
- **Thinkuknow Cybercafe** www.thinkuknow.co.uk/8_10/cybercafe/Cyber-Cafe- Base/ This website contains many informative child friendly sections on electronic communication. Aimed at 8-10 year olds.

- **Safe or unsafe? Email game** www.thinkuknow.co.uk/8_10/Games/EmailQuiz/ A quiz to practise the safe use of email.
- **First to a Million** www.thinkuknow.co.uk/11_13/ Ever posted something you regret? Find out how to get help when things go too far. You choose what happens in this interactive film! Content 11+.
- **Let's fight it together** http://old.digizen.org/cyberbullying/fullfilm.aspx Excellent video vividly portraying effect of cyberbullying. Includes short interviews with all the characters involved.
- **Netiquette** www.tes.co.uk/Download.aspx?storycode=6071671&type=X&id=6118393 Pupils can produce a netiquette leaflet/Do & don't sheet

Second Level

Understanding the world through computational thinking

Experiences and Outcomes	Education Scotland Progression Framework	Skills	P5			P6			P7		
			T1	T2	T3	T1	T2	T3	T1	T2	T3
I understand the operation of a process and its outcome. I can structure related items of information. **TCH 2-13a**	Learners have the knowledge and understanding to be able to analyse increasingly more complex problems, create and/or remix possible solutions using computational thinking techniques to justify, debug and evaluate its efficiency.	● Knows, understands and applies key computational thinking concepts and approaches to solve problems: **Logic, algorithms, decomposition, patterns, abstraction, evaluation.**							cyan		
		● Demonstrates an awareness of computational thinking approaches: **Tinkering, creating, debugging, persevering and collaborating**							cyan	magenta	yellow
		● Is able to use a flow-chart and pseudo code to represent digital solutions.							cyan	magenta	yellow

Suggested Resources
- Hour of Code - https://code.org/learn
- Code Combat https://codecombat.com/play
- Hopscotch for iPad
- Programmable robots E.g. sphero, BB-8, Dash & Dot
- iPad apps

Kodable
Integer Variables 1: Introduction (4th-5ht Grade)
https://dashboard.kodable.com/#/curriculum/lesson/6/19/
Array Variables: Introduction (4th-5th Grade)
https://dashboard.kodable.com/#/curriculum/lesson/7/22/
Properties 1: Introduction (5th Grade) https://dashboard.kodable.com/#/curriculum/lesson/10/28/
Pizza Party (4th-5th Grade)
https://dashboard.kodable.com/#/curriculum/lesson/26/90/
Hour of Code: Beginner (4th Grade)
https://dashboard.kodable.com/#/curriculum/lesson/19/62/
Hour of Code: Advanced (4th Grade)
https://dashboard.kodable.com/#/curriculum/lesson/20/70/
Hour of Code: Advanced (4th – 5th Grade)

https://dashboard.kodable.com/#/curriculum/lesson/20/71/
Hour of Code: ELA Integration (4th Grade)
https://dashboard.kodable.com/#/curriculum/lesson/22/75/
Assessment – OOP1: Concept Review https://dashboard.kodable.com/#/curriculum/lesson/8/44/

Scratch
Rock Band
https://codeclubprojects.org/en-GB/scratch/rock-band/
Paint box
https://codeclubprojects.org/en-GB/scratch/paint-box/
Chatbot
https://codeclubprojects.org/en-GB/scratch/chatbot/
Ghostbusters
https://codeclubprojects.org/en-GB/scratch/ghostbusters/
Lost in space
https://codeclubprojects.org/en-GB/scratch/lost-in-space/
Memory
https://codeclubprojects.org/en-GB/scratch/memory/
Dodge ball
https://codeclubprojects.org/en-GB/scratch/dodgeball/
Brain Game
https://codeclubprojects.org/en-GB/scratch/brain-game/
Catch the dots
https://codeclubprojects.org/en-GB/scratch/catch-the-dots/
Clone wars
https://codeclubprojects.org/en-GB/scratch/clone-wars/
Create your own world
https://codeclubprojects.org/en-GB/scratch/create-your-own-world/

Python
https://www.cyberskillslesson.com/
Every Picture Tells a Story https://www.cyberskillslesson.com/lesson-picture/#
Cracking one in a million passwords
https://www.cyberskillslesson.com/lesson1/
How to Rob a Bank https://www.cyberskillslesson.com/lesson2/
Encrypting Files http://lessons.cyberskillslesson.com/?lesson=encryption 01/10/18
Ring of Firewalls http://lessons.cyberskillslesson.com/?lesson=firewall
Photo Detective
http://lessons.cyberskillslesson.com/?lesson=forensics
Database Clean Up
http://lessons.cyberskillslesson.com/?lesson=database

HTML and CSS

Happy Birthday
https://codeclubprojects.org/en-GB/webdev/happy-birthday/
Tell a story
https://codeclubprojects.org/en-GB/webdev/tell-a-story/
Wanted
https://codeclubprojects.org/en-GB/webdev/wanted/
Recipe
https://codeclubprojects.org/en-GB/webdev/recipe/
Mystery Letter
https://codeclubprojects.org/en-GB/webdev/mystery-letter/
Project Showcase
https://codeclubprojects.org/en-GB/webdev/project-showcase/
Build a Robot
https://codeclubprojects.org/en-GB/webdev/build-a-robot/
https://codeclubprojects.org/en-GB/webdev/stickers/
Sunrise
https://codeclubprojects.org/en-GB/webdev/sunrise/
Linked Rooms
https://codeclubprojects.org/en-GB/webdev/linked-rooms/
Magazine
https://codeclubprojects.org/en-GB/webdev/magazine/
Pixel Art
https://codeclubprojects.org/en-GB/webdev/pixel-art/

Coding Explained by Child-Friendly Video Clips www.bbc.co.uk/education/topics/zs7s4wx

Understanding and analysing computer technology

Experiences and Outcomes	Education Scotland Progression Framework	Skills	P5			P6			P7		
			T1	T2	T3	T1	T2	T3	T1	T2	T3
I can explain core programming language	Learners have the knowledge and understanding of how technology works such as	● Knows, understands and applies key computational thinking concepts and approaches to solve problems: **Logic,**									

concepts in appropriate technical language. **TCH 2-14a** I understand how information is stored and how key components of computing technology connect and interact through networks. **TCH 2-14b**	computer networks. Learners have the knowledge and understanding that allows them to identify the main features of Computing Science – including key components and uses of computers, programs and the Internet.	**algorithms, decomposition, patterns, abstraction, evaluation.**											
		● Demonstrates an awareness of computational thinking approaches: **Tinkering, creating, debugging, persevering and collaborating**											
		● Is able to use a flow-chart and pseudo code to represent digital solutions.											

Suggested Resources

- BBC Bitesize
- Quickstart Computing http://primary.quickstartcomputing.org
- Computing Science Unplugged http://csunplugged.org/activities/
- Computing in the National Curriculum in England http://www.computingatschool.org.uk/data/uploads/CASPrimaryComputing.pdf
- Computing Science resources available in the National Technologies Community on Glow

Second Level

Designing, building and testing computing solutions

Experiences and Outcomes	Education Scotland Progression Framework	Skills	P5			P6			P7		
			T1	T2	T3	T1	T2	T3	T1	T2	T3
I can create, develop and evaluate computing solutions in response to a design challenge **TCH 2-15a**	Learners have the knowledge and understanding to write algorithms to solve simple problems. Learners have the knowledge and understanding to allow them to design, create and debug computer programs using coding languages.	● Applies computational thinking concepts when developing computing solutions.									
		● Can develop a set of instructions involving sequences repetition and selection for others to follow									
		● Can program a digital device to perform more creative and complex commands.									

		• Understands that programs execute by following precise and unambiguous instruction.								

Suggested Resources

- Computing Science Resources and guidance available from Barefoot Computing https://barefootcas.org.uk/activities/
- Quickstart Computing http://primary.quickstartcomputing.org , BBC and the National Technologies Community on Glow.
- Scratch, – See above
- HTML and CSS – See above
- Cyber Skill Lessons - see above
- Programmable robots – Sphero, Dash & Dot
- iPad apps
- Hour of Code - https://code.org/learn
- Code Combat https://codecombat.com/play