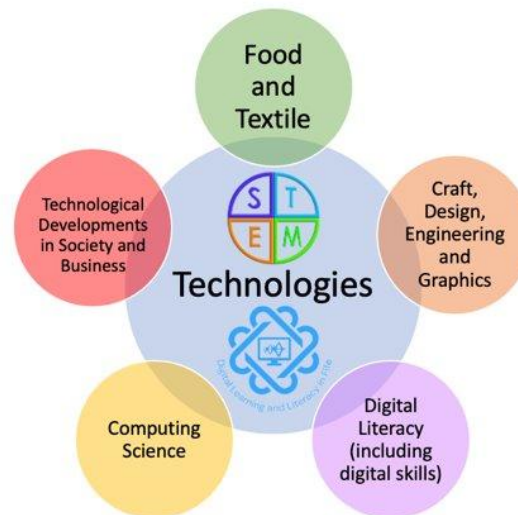


Fife Technologies Progression – Technological Developments in Society and Business



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CONTENTS

[Acknowledgement - 4](#)

[Guidance - 5](#)

[Implementation - 6](#)

[STEM for all in Fife Framework - 7](#)

[Overview - 8](#)

[Early Level - 14](#)

[Awareness of Technological Developments - 15](#)

[Impact, Contribution and Relationship of Technologies – 17](#)

[First Level - 19](#)

[Awareness of Technological Developments - 20](#)

[Impact, Contribution and Relationship of Technologies – 22](#)

[Second Level - 24](#)

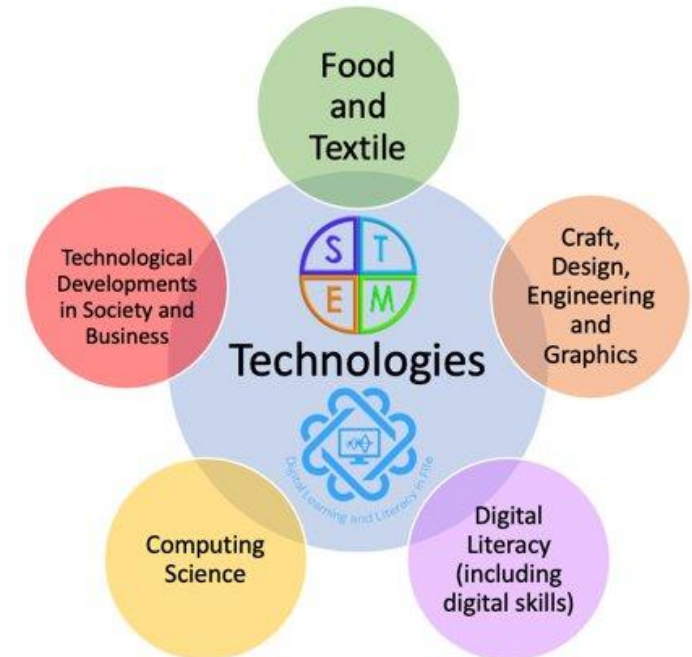
[Awareness of Technological Developments - 25](#)

[Impact, Contribution and Relationship of Technologies – 27](#)

[Third Level - 29](#)

[Awareness of Technological Developments - 30](#)

[Impact, Contribution and Relationship of Technologies - 32](#)



ACKNOWLEDGEMENT

This programme is extensively based on the guidance and recommendations of the Curriculum for Excellence and Benchmarks set out by Education Scotland.

These progressions allow for a fluidity of approaches that facilitate the opportunity for learners to think creatively and independently, whilst at the same time supporting practitioners to plan in a structured and coherent way. Using these shared standards and expectations within Schools, Clusters and Local Improvement Forums across Fife will ensure that all learners have an equitable experience to develop skills for their learning, life, and work.

We would like to acknowledge the efforts of Fife practitioners in supporting the development of the Fife Technologies Progression through engaging with consultations and providing feedback on the programme. This has been crucial in ensuring that the programme is cohesive, progressive and practical.

The progression pathways align to the [Technologies Planning Resource](#) which has been developed through the RAiSE Programme with support from Education Scotland and Scottish Government. Raising Aspirations in Science Education (RAiSE) is a programme of The Wood Foundation, Education Scotland, Scottish Government and participating local authorities which enhances the delivery of STEM education in primary schools. This resource supports planning for technologies around the experiences and outcomes from early to second level. These activities and approaches should be viewed as useful starting points and suggestions, and they are in no way prescriptive.

GUIDANCE

The [Technologies Curriculum](#) has been split into five curricular organisers:

- Digital Literacy
- Food and Textile
- Technological Developments in Society and Business
- Craft, Design, Engineering and Graphics
- Computing Science

This progression pathway is intended to provide a framework for practitioners as they plan and deliver the Technologies curriculum organisers to ensure all learners have the skills and experiences required to use resources including digital tools safely to support their learning across the curriculum.

Within the Progression Pathways, developmental stages of learning are clearly outlined. These amalgamate both [Experiences and Outcomes](#) with the national [Benchmarks](#). These are not prescribed in a hierarchical way but rather enable practitioners to be responsive and flexible in their planning of learning pathways as appropriate to the needs of their learners. Though knowledge and skills at the base are often required for further learning to be built upon, these are not aligned to any particular year group nor always the starting point for all. Learners will progress through their learning pathways within each curricular organiser as appropriate to their developmental needs.

The national Benchmarks, which support practitioners' professional judgement of achievement of a level, are embedded within each of the Progression Pathways. These are emboldened for ease of identification.

The [RAiSE Technologies Planning Resource](#) complements the Progression Pathways for each Experience and Outcome, providing clear and concise practical ideas and guidance for teachers. The resource includes key skills and suggested learning experiences, common misconceptions, glossary of key vocabulary, key questions, IDL opportunities, suggested assessments, extended learning and for each E and O. Practitioners may draw on these to inform their practice when developing rich and varied learning experiences to effectively motivate, challenge and support all learners.

Effective use of the documentation is best supported by engaging with the whole school culture to identify how it can be used consistently for planning and assessment purposes. Ongoing professional learning will be a core element for all practitioners to meet the ever-evolving requirements.

IMPLEMENTATION

Learning in the Technologies should be delivered through an appropriate blend of well-planned discrete and interdisciplinary learning. Schools and teachers will plan to offer different combinations of the Experiences and Outcomes across the Technologies organisers to provide programmes that meet the needs of children and young people.

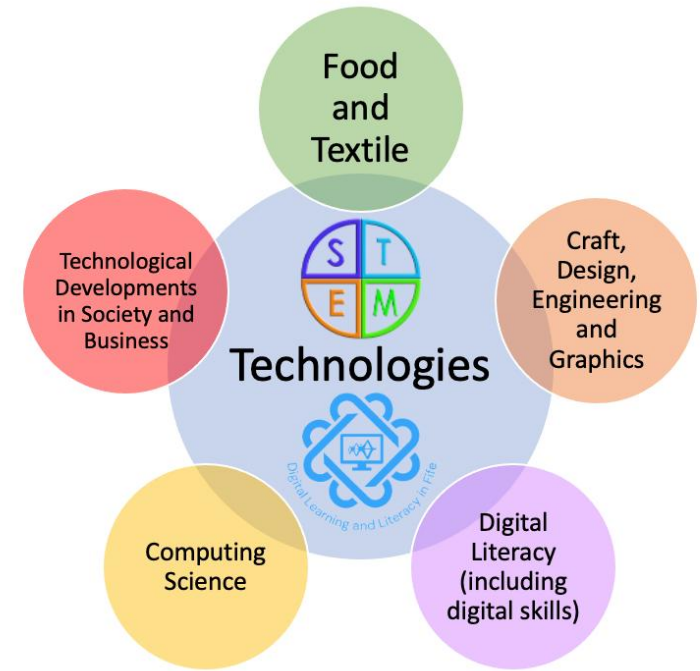
See [Education Scotland's Technologies Principles and Practice](#) document for further information on what learning in the Technologies offers.

Schools may choose to specifically allocate time to the Technologies or embed within the curriculum, linking with other curricular areas, such as Sciences, Social Studies, Numeracy, Literacy, Health and Wellbeing. Schools may also link the Technologies with learning in the real world, by using Learning for Sustainability, STEM, the Sustainable Development Goals and Developing the Young Workforce as a lens to explore Technologies.

Technological Developments in Society and Business

To support the exploration and implementation of this curricular organiser, there are key links in the Digital Literacy curricular organiser, which will support the development of digital skills and the role of technology within society and business. The Fife Digital Learning and Literacy Progression for Digital Literacy can be found [here](#).

The [RAiSE Technologies Planning Resource](#) can be used for further support and contains lesson ideas, links and key questions. A link for each planning resource can be found within the progression for each sub organiser. Note that the planning resource has been developed for Early to Second Level.

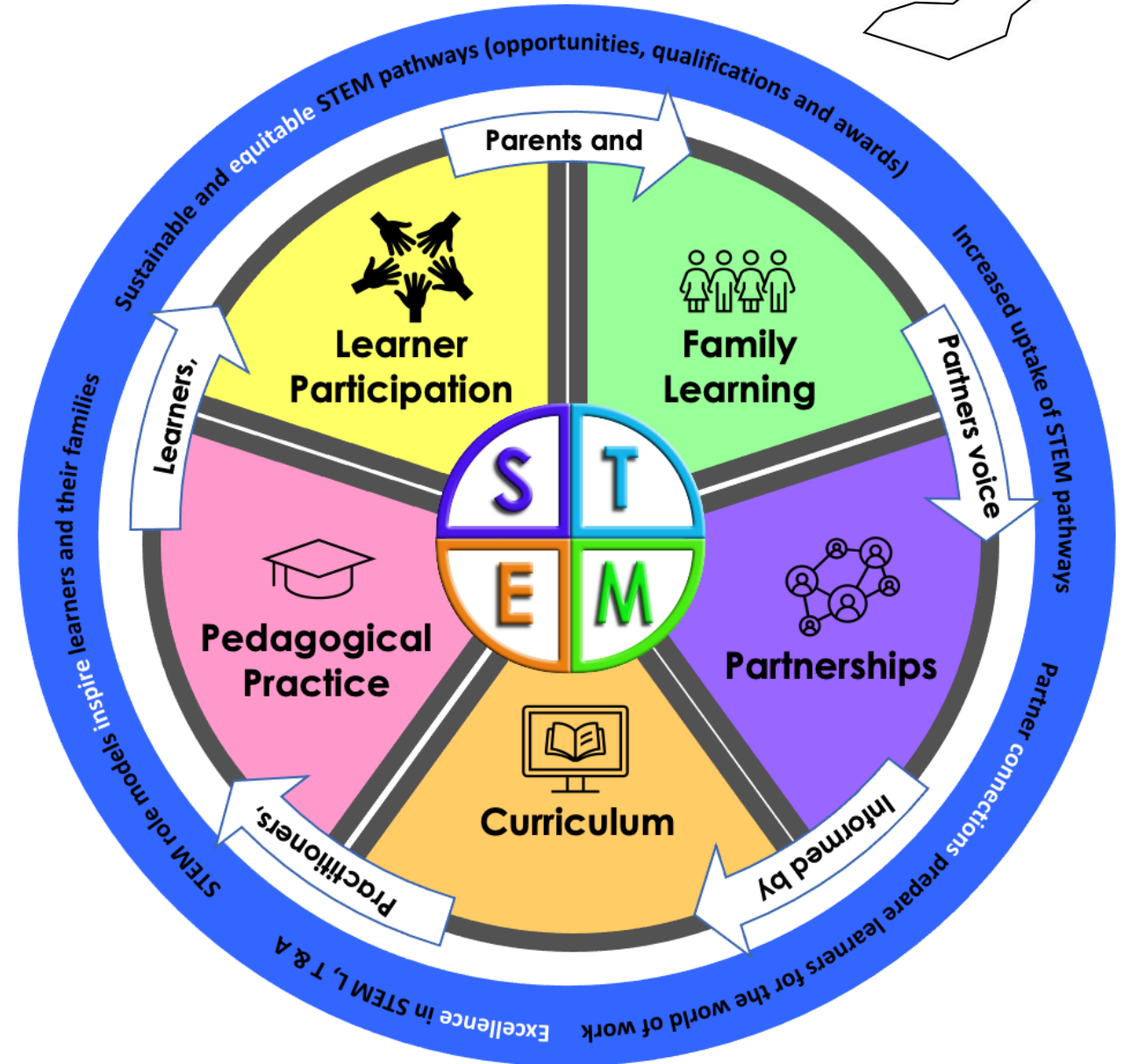
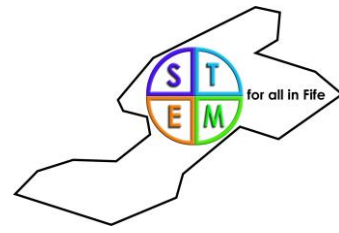


STEM FOR ALL IN FIFE FRAMEWORK

Technology (including digital skills) is core to the foundations of STEM. Technology is the application of knowledge and skills to extend human capabilities and to help satisfy human needs and wants, and it has had profound effects on modern society. Learning in the technologies enables children and young people to be informed, skilled, thoughtful, adaptable and enterprising citizens. Science, Engineering and Mathematics allow us to apply knowledge and skills to innovate, make new discoveries and find sustainable solutions to real world problems.

The STEM for all in Fife Framework outlines our vision that all Fife Learners will be supported to have equitable opportunities to participate in progressive STEM learning, inspiring and equipping our children and young people with skills for the 21st century, securing sustainable positive destinations in STEM industries now and in the future.

The Technologies Progression Pathways have been designed to support practitioners to develop high quality, progressive Technology learning experiences, integrating Science, Engineering and Mathematics as well as other curricular areas to support positive outcomes for our children and young people.



Technological Developments Overview

Early to Fourth Level

Early Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I enjoy playing with and exploring technologies to discover what they can do and how they can help us. TCH 0-05a	Discusses times when they have used different technologies.
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	To help care for the environment, I reduce, re-use and recycle the resources I use. TCH 0-06a I understand how local shops and services use technologies to provide us with what we need and want in our daily lives. TCH 0-07a	- Understands what can be reduced, re-used and recycled. - Gives examples of how people (for example police, fire, healthcare) who help us use technologies in their everyday work.

First Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I can explore the latest technologies and consider the ways in which they have developed. TCH 1-05a	Identifies changes to technologies for example, televisions and mobile phones.
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can take appropriate action to ensure conservation of materials and resources, considering the impact of my actions on the environment. TCH 1-06a I understand how technologies help provide for our needs and wants, and how they can affect the environment in which we live. TCH 1-07a	- Identifies ways in which energy can be saved. - Understands how and where we waste materials and resources. - Demonstrates an understanding of how technologies, by meeting our needs and wants, affect the environment in which we live.

Second Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I can investigate how product design and development have been influenced by changing lifestyles. TCH 2-05a	Gives examples of how our changing lifestyles have impacted on product design.
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can analyse how lifestyles can impact on the environment and Earth's resources and can make suggestions about how to live in a more sustainable way. TCH 2-06a I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	- Explains how and why it is important to conserve energy. - Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.

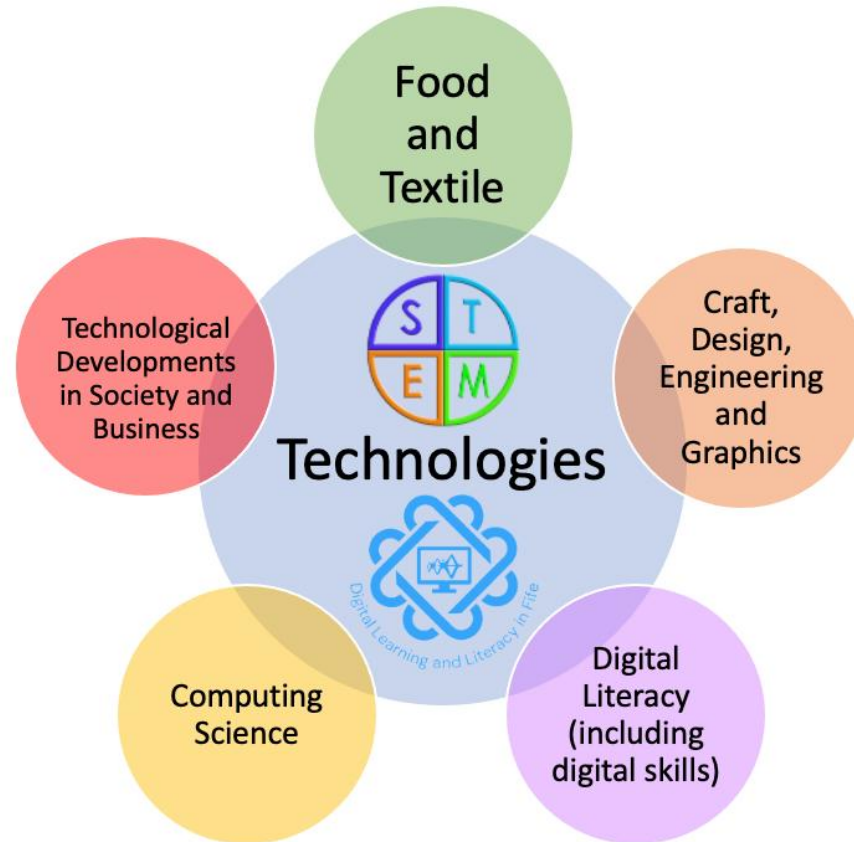
Third Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I understand how scientific and technological developments have contributed to changes in everyday products. TCH 3-05a	• Discusses advantages and disadvantages of using technologies in our everyday life.
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can evaluate the implications for individuals and societies of the ethical issues arising from technological developments. TCH 3-06a I can identify the costs and benefits of using technologies to reduce the impact of our activities on the environment and business. TCH 3-07a I can explore the impact, contribution and use of various software applications and emerging hardware in business. TCH 3-08a	• Demonstrate an awareness of ethical issues around product development. • Demonstrates an understanding of the impact of technologies on the environment and business. • Searches, edits and manipulates text and numbers using appropriate hardware and software.

Fourth Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I can analyse products taking into consideration sustainability, scientific and technological developments. TCH 4-05a	Identifies factors which affect product design.
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can examine a range of materials, processes or designs in my local community to consider their environmental, social and economic impact. TCH 4-06a I can present conclusions about the impact of technologies on the economy, politics and the environment. TCH 4-07a I can select and use appropriate hardware and software which supports evolving business activities. TCH 4-08a	- Demonstrates an understanding of the impact of materials and processes on design. - Explains the impact of technologies on globalisation, patterns of work and conditions of employment. - Updates and presents information using appropriate hardware and software.

Technological Developments Early Level



Awareness of Technological Developments Early Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I enjoy playing with and exploring technologies to discover what they can do and how they can help us. TCH 0-05a	Discusses times when they have used different technologies.

What the learning may look like in Fife	Glossary of terms
- Link with Digital Literacy – Using Digital Products: https://blogs.glowscotland.org.uk/fi/digital/using-digital-products/early-level/ - Daily use of devices in the classroom. - Labelling of devices around the setting/school. - Setting up a tinker table to explore different devices and how they work. - For ideas from RAiSE for TCH 0-05a: https://drive.google.com/drive/folders/1H1uWWDzrZy1OnQMkfWTVizxyMGMrKFCZ2	Device - a piece of equipment that serves a specific purpose Keyboard - an input device used to type letters, numbers and commands into a computer Laptop - a portable computer that is small enough to use on one's lap, has its main components (as keyboard and display screen) combined in one unit, and can run on battery power Monitor - a device used for display (as of television pictures or computer information) Mouse - a small hand-operated input device used for computer (as to control cursor movement on the display screen) PC (Personal Computer) Tower - a programmable usually electronic machine that can store, get back again, and work with data Printer - a device used for printing or for making printouts Smartphone - a mobile telephone with an integrated computer and other features not originally associated with telephones, such as an operating system, web browsing and the ability to run software applications Tablet - a mobile computing device that has a flat rectangular form, is usually controlled by means of a touch screen, used for accessing the Internet, watching videos, and reading e-books Technology - a scientific or industrial process, invention, method, or the like

Awareness of Technological Developments Early Level

See [Digital Literacy Pathway](#) to develop skills in using technology.

Discusses times when they have used different technologies.

Explores and tinkers with different technologies to explore how they work.

Explores how technology has changed e.g. telephones, clocks.

Explores and investigates how technology is used in different settings/environments e.g. home, school/nursery, shops, emergency services.

Shares ideas about how technology can help us.

Notices examples of technology around us.

Creating rich play environments in your setting will support learners to explore, investigate and talk about the technology around them.

Impact, Contribution and Relationship of Technologies Early Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	To help care for the environment, I reduce, re-use and recycle the resources I use. TCH 0-06a I understand how local shops and services use technologies to provide us with what we need and want in our daily lives. TCH 0-07a	- Understands what can be reduced, re-used and recycled. - Gives examples of how people (for example police, fire, healthcare) who help us use technologies in their everyday work.

What the learning may look like in Fife	Glossary of terms
- Link learning with the Materials Pathway in the Sciences Progression. - Link learning with Social Studies. - Opportunity to consider Learning for Sustainability and the Sustainable Developmental Goals, linking in with whole school programmes e.g. Eco Schools. - Observing reducing, reusing and recycling in action e.g. food preparation, travel, storage, rag bag, visiting a recycling centre etc. - For ideas from RAiSE for TCH 0-06a: https://drive.google.com/drive/folders/1OhVo2Vij1AW9tQDFn5RHJMODD4yCI5u4 - For ideas from RAiSE for TCH 0-07a: https://drive.google.com/drive/folders/1H-oy8vF7MGGtGPJ_3uGfDsZb_0djU-Cs	Recycle - convert (waste) into reusable material Reduce - make smaller or less in amount or size Reuse - use again or more than once Technology - a scientific or industrial process, invention, method, or the like

Impact, Contribution and Relationship of Technologies Early Level

See Food and Textile Pathway to develop skills in exploring and using different materials.

See Materials Pathway in Sciences to link learning.

Understands what can be reduced, re-used and recycled.

Discusses how we can reduce, reuse and recycle everyday materials and why this is important for the environment and society.

Identifies what is reduced, reused and recycled in different settings/environments e.g. home, school/nursery.

Explores what it means to reduce, reuse and recycle.

Explores and tinkers with different materials e.g. junk modelling.

Creating rich play environments in your setting will support learners to explore, investigate and use different materials.

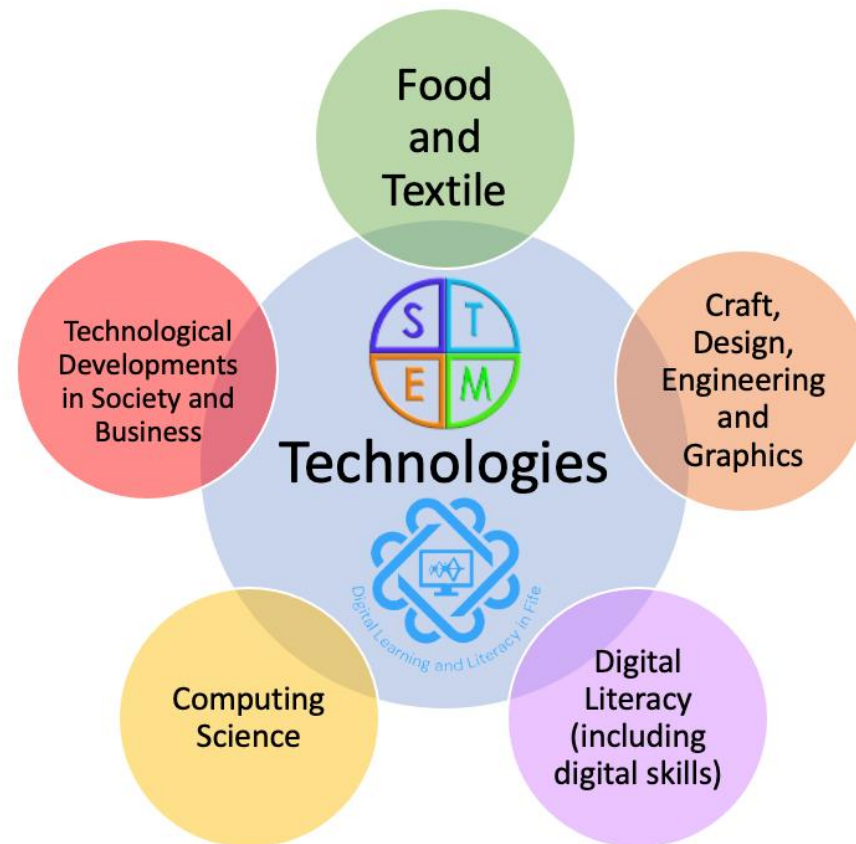
Gives examples of how people (for example police, fire, healthcare) who help us use technologies in their everyday work.

Explores how technology is used by people and services in the local area.

Explores and investigates how technology is used by different people e.g. police, fire, healthcare.

Creating rich play environments in your setting will support learners to explore, investigate how people help us e.g. through role play.

Technological Developments First Level



Awareness of Technological Developments First Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I can explore the latest technologies and consider the ways in which they have developed. TCH 1-05a	Identifies changes to technologies for example, televisions and mobile phones.

What the learning may look like in Fife	Glossary of terms
- Link with Digital Literacy – Using Digital Products: https://blogs.glowscotland.org.uk/fi/digital/using-digital-products/first-level/ - Link with Social Studies. - Daily use of devices in the classroom. - Exploring technologies from the past and present e.g. gaming consoles, mobile phone, etc. - Creating a technology museum/timeline. - For ideas from RAiSE for TCH 1-05a: https://drive.google.com/drive/folders/16k4duZtthLTge5tUjwwsX7n22V1CoD6b	Device - a piece of equipment that serves a specific purpose Keyboard - an input device used to type letters, numbers and commands into a computer Laptop - a portable computer that is small enough to use on one's lap, has its main components (as keyboard and display screen) combined in one unit, and can run on battery power Monitor - a device used for display (as of television pictures or computer information) Mouse - a small hand-operated input device used for computer (as to control cursor movement on the display screen) PC (Personal Computer) Tower - a programmable usually electronic machine that can store, get back again, and work with data Printer - a device used for printing or for making printouts Smartphone - a mobile telephone with an integrated computer and other features not originally associated with telephones, such as an operating system, web browsing and the ability to run software applications Tablet - a mobile computing device that has a flat rectangular form, is usually controlled by means of a touch screen, used for accessing the Internet, watching videos, and reading e-books Technology - a scientific or industrial process, invention, method, or the like

Awareness of Technological Developments First Level

See [Digital Literacy Pathway](#) to develop skills in using technology.

Predicts and discusses how technology will change in the coming years.

Identifies changes to technologies for example, televisions and mobile phones.

Compares and contrasts different technologies from the past and present.

Researches different technologies from the past and present.

Shares and discusses how technology has changed in different lifetimes e.g. their own, family, 100 years ago, etc.

Impact, Contribution and Relationship of Technologies First Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can take appropriate action to ensure conservation of materials and resources, considering the impact of my actions on the environment. TCH 1-06a I understand how technologies help provide for our needs and wants, and how they can affect the environment in which we live. TCH 1-07a	- Identifies ways in which energy can be saved. - Understands how and where we waste materials and resources. - Demonstrates an understanding of how technologies, by meeting our needs and wants, affect the environment in which we live.

What the learning may look like in Fife	Glossary of terms
- Link learning with Social Studies. - Link learning with Sciences. - Opportunity to consider Learning for Sustainability and the Sustainable Developmental Goals, linking in with whole school programmes e.g. Eco Schools. - For ideas from RAiSE for TCH 1-06a: https://drive.google.com/drive/folders/18nQ173pomQttWxSVG1fw4CCI-q1Ex6uO - For ideas from RAiSE for TCH 1-07a: https://drive.google.com/drive/folders/1ynNLcfqdlA-QWJxOE5F5xw6DKeYUIkUY	Affect - to act on and cause a change in (someone or something). Carbon Footprint - the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation, or community Energy - power derived from the use of physical or chemical resources, especially to provide light and heat or to work machines Insulation - material that is used to stop heat, sound, or electricity from escaping or entering Need - a physiological or psychological requirement for the well-being of an organism Want - someone has a desire to possess or do something Waste - a material, substance, or by-product discarded as no longer useful or required after the completion of a process

Impact, Contribution and Relationship of Technologies First Level

See Materials Pathway in Sciences to link learning.

See Energy Sources and Sustainability Pathway in Sciences to link learning.

See Food and Textile Pathway to develop skills in exploring and using different materials.

See [Digital Literacy Pathway](#) to develop understanding around Cyber Resilience and Internet Safety.

Explores what it means to be sustainable and why it is important for everyday life and survival.

Begins to justify decisions about the use of different materials and resources e.g. within the home and classroom.

Identifies ways in which energy can be saved.

Discusses ways in which we can reduce our energy use e.g. within the home and classroom.

Explores everyday uses of energy and associated waste products/materials.

Understands how and where we waste materials and resources.

Identifies different everyday examples of how we waste materials and resources e.g. within the home and classroom.

Begins to discuss the affect of technology on wellbeing e.g. screen time.

Demonstrates an understanding of how technologies, by meeting our needs and wants, affect the environment in which we live.

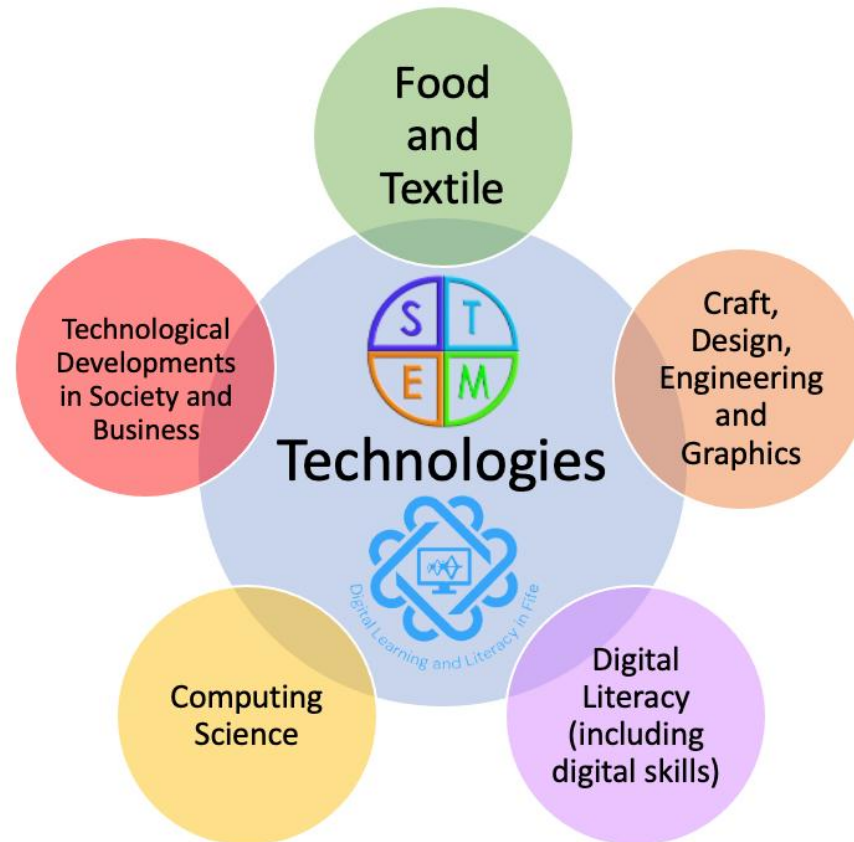
Explores how technologies affect everyday life e.g. use of technology in medicine and use of technology for entertainment.

Discusses how technologies are used in everyday life.

Discusses needs and wants in different settings e.g. within the home and classroom.

Explores the difference between needs and wants.

Technological Developments Second Level



Awareness of Technological Developments Second Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I can investigate how product design and development have been influenced by changing lifestyles. TCH 2-05a	Gives examples of how our changing lifestyles have impacted on product design.

What the learning may look like in Fife	Glossary of terms
- Link with Craft, Design, Engineering and Graphics. - Link with Expressive Arts. - Link with Topical Science - exploring inventions, scientific discoveries etc. - For ideas from RAiSE for TCH 2-05a: https://drive.google.com/drive/folders/1Cr-Una919THSDTPukr_vadoksj1ZW5mK	Development – the progressive change from a previous idea or product to another Lifestyle – the way in which people live Product design – to create a new product through development of ideas to meet the needs of the user Technology - machinery and devices developed from scientific knowledge

Awareness of Technological Developments Second Level

See Craft, Design, Engineering and Graphics Pathway to develop skills in exploring aspects of design.

See Art and Design Pathway in Expressive Arts to link learning.

See Topical Science Pathway in Sciences to link learning.

Gives examples of how our changing lifestyles have impacted on product design.

Researches how life is impacted by new, improved products and technologies e.g. tools, machines, medicines.

Researches the evolution of a product which is important to everyday life.

Discusses present day and past lifestyle changes in relation to product design e.g. products to tell the time.

Impact, Contribution and Relationship of Technologies Second Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can analyse how lifestyles can impact on the environment and Earth's resources and can make suggestions about how to live in a more sustainable way. TCH 2-06a I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	- Explains how and why it is important to conserve energy. - Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.

What the learning may look like in Fife	Glossary of terms
- Link learning with Social Studies. - Link learning with Sciences. - Opportunity to consider Learning for Sustainability and the Sustainable Developmental Goals, linking in with whole school programmes e.g. Eco Schools. - Link to current news about sustainability and technological developments. - For ideas from RAiSE for TCH 2-06a: https://drive.google.com/drive/folders/1oUCn1Q1ja5Kvuz0svb7pOmxgr54qFPAv - For ideas from RAiSE for TCH 2-07a: https://drive.google.com/drive/folders/1UMBQuFPx2y8pJgLAkJ9leUCzSuPmirwg	Circular economy - involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products for as long as possible so that waste is reduced as much as possible Energy efficiency – to use energy when we need to and to save what we can e.g., by using insulation in buildings, use energy efficient light bulbs etc. Natural resources - materials or substances that are produced by the environment. Recycling-something is reused or turned into something else Renewable energy – energy that comes from natural resources that are naturally replenished e.g., wind, waves and tides, sunlight, natural underground heat, plant, and animal matter (biomass) Sustainability - doing something that will cause little or no damage to the environment and will be able to continue for a long period of time Sustainable society – making informed choices about the products we use and where they come from, the lifestyles we live and how we preserve non-renewable resources for future generations

Impact, Contribution and Relationship of Technologies Second Level

See Energy Sources and Sustainability Pathway in Sciences to link learning.

See Topical Science Pathway in Sciences to link learning.

Discusses how to make informed choices about how to live in a more sustainable way e.g. through choice of sustainable products, food, fashion, travel etc.

Explains how and why it is important to conserve energy.

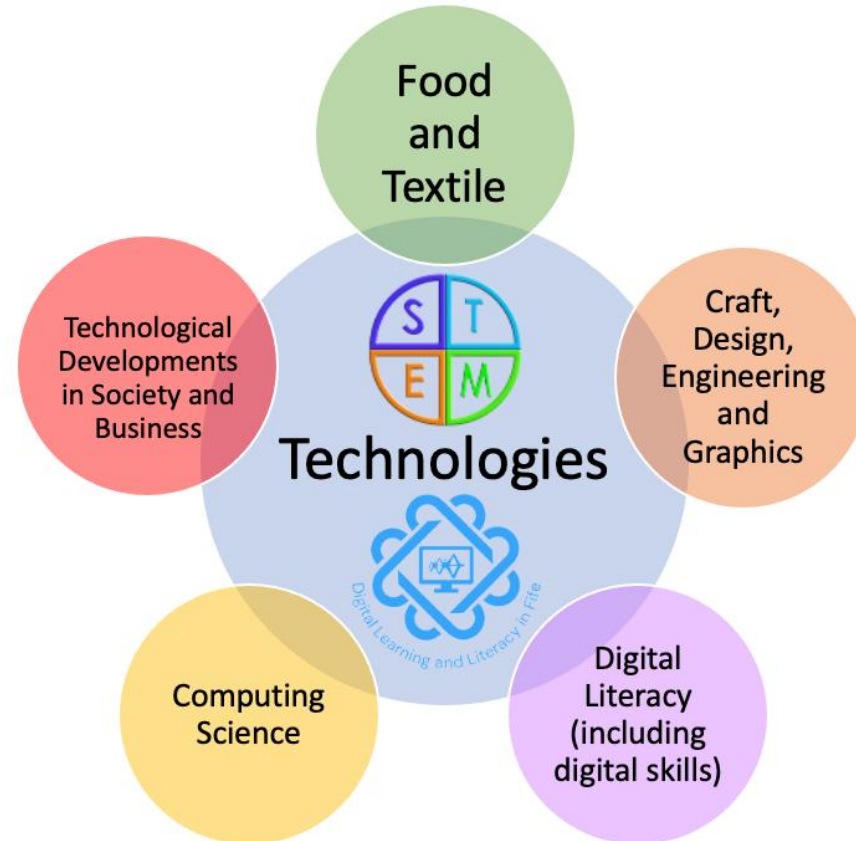
Discusses the role that we can all play in reducing energy use and living more sustainably.

Compares and contrasts different lifestyles in relation to sustainability e.g. travel, food, technology.

Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.

Researches how a piece of technology has impacted the environment e.g. mobile phones - their production, energy use, recycling and purchasing habits.

Technological Developments Third Level



Awareness of Technological Developments Third Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Awareness of technological developments (Past, Present and Future), including how they work.	I understand how scientific and technological developments have contributed to changes in everyday products. TCH 3-05a	Discusses advantages and disadvantages of using technologies in our everyday life.
What the learning may look like in Fife		Glossary of terms
- Exploring software used by businesses such as the Microsoft Office tools. - Demonstrating searching skills by using key words and filters when using search engines. - Researching technology in the past, what it is used for now and what adjustments could be made for the future. - Link with Digital Literacy pathways at Third Level https://blogs.glowscotland.org.uk/fi/digital/		Cloud - 'The cloud' refers to a number of online services where information and files are kept on servers connected to the internet. Instead of keeping them on a single computer that you have to stay at you can access your files on devices that can access the internet anytime, anywhere in the world Economical - giving good value or return in relation to the money, time, or effort expended Economy - the system of trade and industry by which the wealth of a country or region is made and used Environmental - relating to the natural world and the impact of human activity on its condition Network - two or more computers connected for the purpose of storing, sharing, and managing data i.e. the internet Social - relating to society or its organisation Website - a group of World Wide Web pages usually containing links to each other and made available online by an individual, company, or organisation

Awareness of Technological Developments Third Level

See Topical Science Pathway in Sciences to link learning.

See the Third Level [Digital Literacy Pathway](#) to develop understanding around Using Digital Products, Searching for Information and Cyber Resilience and Internet Safety.

Shares opinions on the advantages and disadvantages of using technologies in our everyday life.

Discusses advantages and disadvantages of using technologies in our everyday life.

Researches past and recent scientific and technological developments and explore how these have contributed to changes in everyday products.

Explores how technology is used in everyday life, comparing use of technology in the home, school and work environment.

Impact, Contribution and Relationship of Technologies Third Level

Curricular Organiser	Experiences and Outcomes	Benchmarks
Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.	I can evaluate the implications for individuals and societies of the ethical issues arising from technological developments. TCH 3-06a I can identify the costs and benefits of using technologies to reduce the impact of our activities on the environment and business. TCH 3-07a I can explore the impact, contribution and use of various software applications and emerging hardware in business. TCH 3-08a	- Demonstrate an awareness of ethical issues around product development. - Demonstrates an understanding of the impact of technologies on the environment and business. - Searches, edits and manipulates text and numbers using appropriate hardware and software.

What the learning may look like in Fife	Glossary of terms
- Exploring software used by businesses such as the Microsoft Office tools. - Link with Digital Literacy – Using Digital Products: https://blogs.glowscotland.org.uk/fi/digital/using-digital-products/third-fourth-level/ - Researching the ethics around businesses using data and link with Digital Literacy – Cyber Resilience and Internet Safety: https://blogs.glowscotland.org.uk/fi/digital/cris/third-fourth-level/ - Link with RME around ethics. - Opportunity to consider Learning for Sustainability and the Sustainable Developmental Goals, linking in with whole school programmes e.g. Eco Schools.	Computer Aided Design (CAD) – type of software package used to create and manipulate 3D models Database – information that is set up for easy access, management and updating. Software such as Access is used to create a database Ethics - moral principles that govern a person's behaviour or the conducting of an activity Spreadsheets - software, such as Excel, that organises and manipulates numerical data stored in rows and columns; can produce graphs, do 'what if' scenarios Text editor – software, such as Word, that allows the user to type and edit plain text. It contains few or no features that allow for formatting documents

Impact, Contribution and Relationship of Technologies Third Level

See Craft, Design, Engineering and Graphics Pathway to develop skills in exploring aspects of design.

See Topical Science Pathway in Sciences to link learning.

See [Digital Literacy Pathway](#) to develop skills in using technology.

Investigates how businesses and organisations are investing in sustainability (locally, nationally and globally).

Demonstrates an understanding of the impact of technologies on the environment and business.

Discusses the use of technologies to reduce the impact of our lifestyle on the environment and business.

Identifies activities in lifestyles which impact the environment and business e.g. travel, food, shopping.

Researches the ethical issues around product development and shares opinions on the implications on individuals and societies.

Demonstrate an awareness of ethical issues around product development.

Explores different ethical issues that arise from technological developments.

Searches, edits and manipulates text and numbers using appropriate hardware and software.

Explores how businesses use software and hardware to support the running and development of their business.