Manage online safety

This sub-element supports students to develop the appropriate technical, social, cognitive, communicative and decision-making skills to address online risks. They recognise the content risks that they face online, such as hurtful user-generated content, and the strategies involved in dealing with them.

Foundation (Level 1)

use online tools that are safe or only under direct supervision, seeking help from trusted adults when feeling unsafe

Years 1 & 2 (Level 2)

use online tools that are age appropriate or only under supervision, seeking help from trusted adults when feeling unsafe

Years 3 & 4 (Level 3)

report negative or harmful online behaviour by seeking help from trusted adults

Years 5 & 6 (Level 4)

report negative or harmful online behaviour to trusted adults and know how to report it in online tools

recognise when to step away from negative online social interactions

Years 7 & 8

(Level 5)

identify online abuse and bullying and report them to trusted adults, appropriate authorities and in online tools

stop engaging in negative online social interactions

Years 9 & 10

(Level 6)

engage in safe, legal and ethical online behaviour and defuse negative online social interactions

recognise the benefits and risks of anonymity online

Online tools	Digital hardware, software, platforms and resources that are connected and support communications between users.
	Examples of online tools include websites for online shopping and fitness apps.
Trusted adults	Reliable people who children feel comfortable talking to if they are upset or need help when engaged in online activities.
	They might include family members, carers, teachers.
Online behaviour	Actions taken when interacting with others in an online environment.
	For example, behaviour should be respectful, inclusive, positive and proactive to minimise risks and harmful treatments.
Online social	Exchanges between individuals when using online tools that are typically informal.
interactions	For example, the interactions could relate to playing games or sharing experiences within a sporting group.

Manage digital privacy and identity

This sub-element supports students to recognise the importance of controlling and shaping their own digital identity. They create and curate their online identities to positively tell their stories, while recognising how personal use of digital media may have implications on their digital footprint.

Foundation (Level 1)

recognise their personal data and that data (including text, images, and video) can be seen by others when shared online Years 1 & 2 (Level 2)

recognise that online tools (website and apps) store their personal data, which may give an impression of them Years 3 & 4 (Level 3)

identify their digital footprint (personal data stored by online tools)

recognise their digital identity represents them online and can give a negative impression

give and seek
consent before
sharing online with
peers and trusted
adults

Years 5 & 6 (Level 4)

recognise the permanence of their digital footprint and digital identity, and the associated risks, including to their reputation

give and seek consent before sharing online in trusted groups Years 7 & 8 (Level 5)

recognise their digital footprint is valuable, used by online tools for targeting, and that data shared online is no longer under their control

consider who they trust with their data and review privacy policies before giving consent, and seek consent before sharing online Years 9 & 10

(Level 6)

recognise their actions contribute to their passive digital footprint

manage their digital identity by controlling privacy, connections and group settings, and curating posts

consent selectively to data collection after assessing the benefits and risks of an online tool privacy policy

Personal data	Data and information that can readily identify an individual.
	For example, a person's name, signature, home address, email address, photographs, phone number and date of birth.
Data	A general term for a set of observations or measurements collected during an investigation.
	Primary data is collected by the user; secondary data is collected by others.
Digital footprint	The total set of traceable data left behind by a person using digital tools.
	A person's digital footprint includes active data (e.g. emails) and passive data (e.g. browser history).
Digital identity	How an individual is represented or perceived online, often via comments or social media posts.
	For example, a person's digital identity can be based on their activities, connections or tags.

Consent	Informed and freely given agreement to engage in an activity, or permission for a specific thing to happen.
	This could include agreement on what personal data can be shared online.
Trusted groups	Reliable friendship or formal groups.
	For example, school groups in which children feel confident and safe in when communicating and collaborating online.
Privacy policies	Statements that explain how organisations or parties will use, disclose and manage an individual's information.
	The policies should be designed to securely ensure an individual's or entity's privacy.
Curating posts	Act of selecting and organising posts created by others that are shared with your own audience.
	These curated posts are often shared through social media, blogs and newsletters.

Manage digital wellbeing

This sub-element supports students to consider the nature and impact of digital tool use. They develop understanding that behaviours such as excessive screen time, digital workload, distraction and multitasking can have an impact on their health, work productivity, wellbeing and lifestyles. They understand the benefits and risks of digital participation in relation to health and wellbeing outcomes.

Foundation (Level 1)

follow adult directions for the use of digital tools at school and home Years 1 & 2 (Level 2)

follow agreed rules for the healthy use of digital tools and apply them at school and home Years 3 & 4 (Level 3)

follow an agreed code of conduct for the healthy use of digital tools Years 5 & 6 (Level 4)

follow an agreed code of conduct for the healthy and productive use of digital tools, considering the impact of tool use on wellbeing

Years 7 & 8

(Level 5)

develop routines to support their balanced and constructive use of digital tools

identify indicators of unhealthy usage

Years 9 & 10

(Level 6)

self-regulate the use of digital tools to purposefully enhance their wellbeing

identify how tools are designed to capture their attention

Healthy and	Applying habits or rules when using digital tools that have a positive effect on a person's digital wellbeing as well as in other purposeful endeavours such as achieving positive results in
productive use	learning.
Wellbeing	The capacity to look after a person's physical and mental health, safety and relationships when using digital tools.
	It involves developing and maintaining a healthy relationship with digital tools.
Unhealthy usage	Using digital tools in a way that is not balanced or conducive to a person's health.
	For example, responding to all notification sounds and spending excessive time on-screen.

Locate Information

This sub-element supports students to curate information from digital resources. They effectively use research strategies to locate information and other resources. Students articulate their information and content needs, and effectively navigate information and content they encounter.

Years 1 & 2 (Level 2)

locate information through search engines and in documents by applying search terms, and select relevant information Years 3 & 4 (Level 3)

locate information through search engines and in documents by applying specific search terms, and selecting and retrieving relevant information from multiple sources Years 5 & 6 (Level 4)

locate information
through search
engines and in
documents by
applying specific
search terms based
on set criteria, and
select and retrieve
relevant information
from multiple
sources

Years 7 & 8 (Level 5)

locate, select and retrieve relevant information from multiple sources, exploring advanced search functions and targeted criteria

Years 9 & 10 (Level 6)

locate relevant
information by
applying advanced
search functions
across multiple
sources involving
purposefully selected
and contextually
specific terms and
criteria

Content	Output created using digital tools. Often generally referred to as information.
	For example, a greeting card, a timeline, an essay, digital art, a chart, an animation, a 3D model, a presentation, an interactive visualisation and a podcast.
Search engines	Software programs that help people find information they are looking for online.
	A search engine searches for and identifies items in its database that correspond with specified keywords.
Advanced search	Words and prefixes used in a search engine that narrow the focus of a web search.
functions	For example, using Boolean search operators or required terms will return targeted results. (https://www.google.com.au/advanced_search)
Information	Data that has been processed, organized, and interpreted to add meaning and value
	For example, an infographic showing the effects of certain strategies on the migration of the cane toad population.

Acquire and collate data

This sub-element supports students to understand how data can be generated and how to process data based on statistical understanding. They explore relevant data sets and read, manage and process data from a variety of sources.

Years 1 & 2 (Level 2)

collect data by counting, measuring and observing with familiar digital tools Years 3 & 4 (Level 3)

collect and access
data using a range of
digital tools and
methods in response
to a defined question

Years 5 & 6 (Level 4)

collect and access
data using a range of
digital tools and
methods in response
to a defined question
or problem

Years 7 & 8 (Level 5)

collect and access
data from a range of
sources, using
specialised digital
tools in response to
problems, and
evaluate it for
relevance

Years 9 & 10 (Level 6)

collect and evaluate quantitative and qualitative data using specialised digital tools and processes in the context of identified problems

Data	A general term for a set of observations or measurements collected during an investigation. Primary data is collected by the user; secondary data is collected by others.
	Raw, unprocessed facts that need context to become useful
	For example, a table of the showing the reported number of crocodiles over a period of time and their estimated size
Collect data	The process of obtaining data from a new source
	For example, a survey created for a specific purpose or data obtained through data logging sensors.
Access data	The process of obtaining data from an existing source
	For example, content in shared folders and public databases.

Interpret Data

This sub-element supports students to create and build knowledge by analysing data and communicating its meaning to others using various data visualisation tools. They present patterns, trends and analytical insights from data to facilitate problem-solving and decision-making.

Foundation (Level 1)

use simple digital tools to explore sorting data and information provided as part of learning experiences Years 1 & 2 (Level 2)

classify and group data using digital familiar tools to answer simple questions Years 3 & 4 (Level 3)

organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions Years 5 & 6 (Level 4)

analyse and
visualise data
using a range of
digital tools to
identify patterns
and make
predictions

Years 7 & 8 (Level 5)

analyse and
visualise data by
selecting and
using a range of
digital tools to
infer
relationships and
make predictions

Years 9 & 10 (Level 6)

analyse and
visualise
multidimensional
data by selecting
and using a range
of interactive
tools to draw
conclusions and
make predictions

Visualise data	Process of presenting data in a summarised form to help with communication and analysis
	For example, sorting and presenting data as a chart showing spending trends to help make financial decisions.
Relationships	The stimulus and effect that can be more easily inferred when data is visualised.
	For example, inferences can be drawn from a chart showing ice cream sales and daily temperatures.
Multidimensional data	Data that has many dimensions and values.
	The data is structured in many rows and columns and can be modelled and viewed in multiple dimensions, facilitating interpretation.
Interactive tools	Software that supports users being able to change the behaviour, view or results by providing some input.
	Interactive tools (e.g. spreadsheets) help users draw conclusions and make predictions.

Data Sets

Typical formats of the data include Excel files and CSV files

Secondary

- Data.gov.au
- Australian Bureau of Statistics
- Australian Bureau of Statistics Data Explorer
- CSIRO Educational Datasets
- Australian Data Science Education Institute (adsei.org)
- CORGIS: The Collection of Really Great, Interesting, Situated Datasets
- <u>Digital Technologies Hub: Data Science STEM resources</u>
- Our world in data
- Kaggle
- Information is Beautiful
- Gapminder

Primary

- Convict Database
- Collect via surveys using Google or Microsoft forms
- Collect using sensors: e.g. https://makecode.microbit.org/courses/ucp-science
- Collect using drones to collect data to analyse: e.g. SheMaps

Pre-reading Article

https://theconversation.com/learning-from-home-is-testing-students-online-search-skills-here-are-3-ways-to-improve-them-165752

Reflection question

How can we guide students to effectively use digital tools and technologies to locate, access, and evaluate data, while ensuring their practices align with the ethical and safe use of information as outlined in the Digital Literacy General Capabilities?

Plan

This sub-element supports students to use digital tools to plan and manage a process that considers design constraints and risks.

Years 1 & 2 (Level 2)

use simple digital tools to contribute to a basic plan to complete a task

Years 3 & 4 (Level 3)

use familiar digital tools to develop and follow a basic plan to complete a task Years 5 & 6 (Level 4)

select and use digital
tools to develop and
follow a plan to
complete individual
tasks and group
projects

Years 7 & 8 (Level 5)

use simple planning tools to develop and follow a plan to complete individual and collaborative projects Years 9 & 10 (Level 6)

use project
management tools to
develop and track a
plan to complete
individual and
collaborative
projects

Digital Tools	Digital hardware, software, platforms and resources used to develop and communicate learning, ideas and information.
	For example, software and hardware to compose and record music.
Planning Tools	Software that assists in setting out the tasks, their time allocations, resources and responsibilities in collaborative work.
	For example, timeline tools and spreadsheets.
Project	Software that supports the planning and tracking of projects. Project management tools provide visualisations of the workflow, timeframe and resources involved in completing a project.
Management Tools	

Questions:

- Where in your learning sequences do students have opportunities to design/follow a plan to complete a teacher guided/independent task?
- What (if any) digital planning or collaboration tools are they encouraged to use as part of these activities?

Create, communicate and collaborate

This sub-element supports students to execute plans for the design of digital content and to develop, test and refine models to create original products. Students recognise different types of peer-to-peer communication and collaboration strategies, tools and formats, and decide which methods are most effective for individual or collaborative goals.

Foundation

use simple digital tools to create content

Years 1 & 2 (Level 2)

experiment with the features of familiar digital tools to create content Years 3 & 4 (Level 3)

use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults Years 5 & 6 (Level 4)

select and
control a variety
of features in
digital tools
appropriate to
create content
and
communicate
and collaborate
with trusted
groups

Years 7 & 8 (Level 5)

select and control advanced features of digital tools appropriate to independently create content and effectively communicate and collaborate with wider groups

Years 9 & 10

(Level 6)

select and control the features of digital tools to purposefully create content and effectively communicate and collaborate, inclusive of diverse groups

Definitions

Content	Output created using digital tools
	For example, a greeting card, a timeline, an essay, digital art, a chart, an animation, a 3D model, a presentation, an interactive visualisation and a podcast.
Trusted Adults	Reliable people who children feel comfortable talking to if they are upset or need help when engaged in online activities. They might include family members, carers, teachers.
Trusted Groups	Reliable friendship or formal groups (e.g. school groups) in which children feel confident and safe in when communicating and collaborating online.

Digital Tools

Typology of free web-based tools	The Typology of Free Web-based Learning Technologies (2020) provides educators with a list of 226 technologies arranged into 40 types and 15 clusters that can be
	used via a browser to promote more productive and interactive learning.
Common-Sense Media Best Tech-	A list of 53 apps, games and websites curated by Common Sense Media Education Editors
<u>Creation Tools</u>	
Al Assessment Scale (AIAS)	A practical, simple, and sufficiently comprehensive tool to allow for the integration of GenAl tools into educational assessment. The Al Assessment Scale (AIAS)
, ,	empowers educators to select the appropriate level of GenAl usage in assessments based on the learning outcomes they seek to address.

Questions:

- What digital creation tools are specifically mentioned/outlined in your teaching and learning programs?
- To what extent are the skills required for these creation tools explicitly outlined in your teaching and learning programs?
- Does your school encourage you to share the tools you are explicitly teaching/using in your programs with your colleagues to build a shared skill base for your students?

Respect Intellectual Property

This sub-element supports students to understand the ethical and legal responsibilities around ownership and remixing of digital content, for example, plagiarism, copyright, fair use and licensing. They demonstrate responsibility and respect for others by protecting their own digital creations and crediting others' content when appropriate.

Foundation (Level 1)

identify who owns class data

Years 1 & 2 (Level 2)

recognise ownership of products that others produce or that are produced collaboratively Years 3 & 4 (Level 3)

respect products created by someone else by acknowledging when they use them and use strategies such as indicating the source Years 5 & 6 (Level 4)

respect
intellectual
property by
identifying the
legal obligations
regarding the
ownership and
appropriate use
of products,
exploring
copyright
protocols and
applying some
referencing
conventions

Years 7 & 8 (Level 5)

respect
intellectual
property by
applying
practices that
comply with
ethical and legal
obligations,
referencing
conventions and
copyright
protocols

Years 9 & 10 (Level 6)

respect
intellectual
property by
identifying and
applying
practices that
meet legal and
ethical
obligations,
referencing
conventions,
copyright and
trademark
protocols

Definitions

Data A general term for a set of observations or measurements collected during an investigation. Primary data is collected by the user; secondary data is collected by others.

Ouestions:

• How do you support students' development and understanding in respecting intellectual property?

Digital Literacy: Managing and operating

Manage Content

This sub-element supports students to interact with information and data, save content using appropriate and logical conventions, and retrieve content from personal, networked and cloud spaces.

Foundation (Level 1)

save and retrieve content in an app

Years 1 & 2 (Level 2)

save and retrieve content with an agreed name Years 3 & 4 (Level 3)

save and retrieve content in agreed locations with an appropriate name Years 5 & 6 (Level 4)

store content using appropriate names and folders for ease of tretrieval Years 7 & 8 (Level 5)

store and backup content online for access and editing from multiple devices Years 9 & 10 (Level 6)

store content
systematically
online for access
and editing (with
version history)
from multiple
devices and
ensure data is
reliably backed
up

Definitions

Content	Output created using digital tools
	e.g. a greeting card, a timeline, an essay, digital art, a chart, an animation, a 3D model, a presentation, an interactive visualisation and a podcast
Data	A general term for a set of observations or measurements collected during an investigation.
	Primary data is collected by the user; secondary data is collected by others.
Save	Updates the current content of the last saved file. For example, you can use the Save command to save a file for the first time in a single format.
Store	May refer to saving a file in a different format or location. For example, you can use the Save As command to save a file in a different format and at a different location.

Questions:

• Does this definition of data seem entirely appropriate for this context?

Digital Literacy: Managing and operating

Protect Content

This sub-element supports students to identify potential threats and implement relevant cyber security practices, such as using secure passwords. They use technology without compromising their and devices.

Years 1 & 2 (Level 2)

save and access content in their individual school account Years 3 & 4 (Level 3)

save and access content in shared folders using their individual school account Years 5 & 6 (Level 4)

protect content when sharing with peers and trusted adults by setting appropriate access controls Years 7 & 8 (Level 5)

protect content when sharing by selecting appropriate access controls for individuals and shared links for wider groups

Years 9 & 10 (Level 6)

protect content when sharing by purposefully selecting appropriate access controls for individuals and groups

Definitions

Trusted Adults	Reliable people who children feel comfortable talking to if they are upset or need help when engaged in online activities. They might include family members, carers, teachers.
Access Controls	Security techniques that allow an owner of content to control or regulate who can view or use it. Access controls are a means of determining who is authorised to and able to access
	content.

Questions:

• How are you modelling protected content in your class/resource set up?

Further Interesting Reading

<u>Department of Employment and Workplace Relations: Digital Literacy Skills Framework</u>

How does this compare with what we are asking of students in a school setting?

Digital Literacy: Managing and operating

Select and operate tools

This sub-element supports students to apply technical knowledge and skills to select, use and appropriate. They develop an understanding of hardware and software components, and the operations of appropriate digital systems, including their functions, processes and procedures.

Foundation (Level 1)

use simple digital tools to explore tasks and consolidate learning

seek help when encountering a problem Years 1 & 2 (Level 2)

use familiar digital tools to complete tasks and consolidate learning

attempt to solve a problem before seeking help Years 3 & 4 (Level 3)

select and use a range of digital tools to complete tasks

attempt to solve a problem individually and with peers before seeking help Years 5 & 6 (Level 4)

select and use the core features of digital tools to efficiently complete tasks

troubleshoot basic problems and identify repetitive tasks to automate Years 7 & 8 (Level 5)

select and use
the advanced or
unfamiliar
features of digital
tools to
efficiently
complete tasks

troubleshoot common problems and automate repetitive tasks Years 9 & 10 (Level 6)

select and operate advanced and emerging digital tools confidently

troubleshoot

common problems systematically and seek to improve efficiency by developing new skills

Definitions

Digital Tools	Digital hardware, software, platforms and resources used to develop and communicate learning, ideas and information, e.g. software and hardware to compose and record music.
Troubleshoot	Ability to solve technical problems by tracing and correcting faults, e.g. restart a digital tool or ensure cables are correctly connected.
Automate	Process of using software features to achieve a result rather than repetitive manual instructions, e.g. using a formula in a spreadsheet to repeatedly calculate values.
Emerging Digital Tools	Hardware, software, platforms and digital resources whose development and applications are not yet realised or widespread, e.g. robotics, artificial intelligence, augmented reality.

Ouestions:

- How do you model troubleshooting?
- What automation of tasks are you using for yourself or other teachers in your school?