DTiF
Digital Technologies in focus
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acara AUSTRALIAN CURRICULUM, ASSESSMENT AND REPORTING AUTHORITY

CLASSROOM IDEAS: Foundation

Privacy and security

What is data? What is my data? What is public data? What is the difference between personal and public data?

Privacy and security are essential knowledge and understanding in the modern world. Applying this understanding to privacy and security practices is an important skill and it can begin in Foundation with a focus on privacy.

In Foundation, students should:

- become aware of what data is (Figure 1)
- start to develop an understanding that they create data through everyday interactions, and they can use this knowledge to identify familiar examples of data (Figure 1)
- learn through examples by exploring the differences between personal and public data and sorting examples into categories based on teacher questions (Figure 2)
- become aware that data can be seen by others when shared online and that they can have a voice and choice around who their data is shared with
- start to understand the concept of a digital system as a data sharing and collection tool.

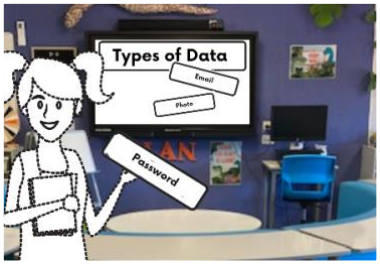

Figure 1: An example of an activity where students learn about what kinds of things are classified as data and discuss where this data might be used or accessed

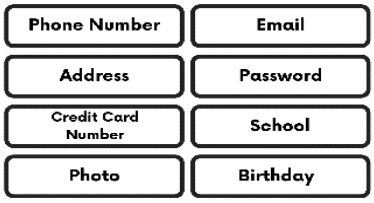

Figure 2: Card examples of types of data for students to discuss and apply their knowledge around sorting data into categories (personal or public)

Foundation students could:

- brainstorm the things or ways that adults in their lives post or interact online (photos or text) and with whom they interact, explicitly defining and discussing the types of data (e.g. video, text, picture)
- view images and word cards and explicitly discuss the examples of data and identify where in their own lives they have seen the various types of data collected or used
- list examples of public data and discuss the appropriate use or purpose of this data, e.g. the school's address

Figure 3: Sample labelling activity to consolidate learning around personal data (owned by students) or not personal data (owned by someone else or everyone)

- draw a picture of themselves using their own personal data in a real-life situation
- play a game of 'Who am I?' using known data about students, and discuss how data was collected (e.g. birthdate displayed on the wall, picture of student in the newsletter with their first name, their lunchbox with their last name)
- capture images around the school using the camera on a tablet device and create a digital mind map that sorts the data into personal and private
- identify whether examples are personal or public using visual cards to support their understanding (Figure 3)
- engage in active role-play where they are given scenario cards, deciding whether they feel comfortable with their data being shared, and identifying people who can support them in making informed and safe decisions around sharing data

Figure 4: Example of a digital T-chart sorting activity for deciding whether data in each scenario is personal (owned by students) or not personal (owned by someone else or everyone)

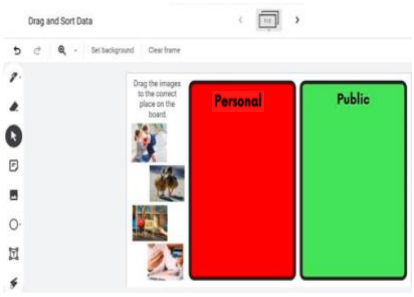

Figure 5: Drag-and-drop activity adaptation for an interactive software package allowing differentiation and interactivity

- develop an understanding of why it is important to only share data with people they know in person, and learn to identify who these 'safe' people are
- develop an understanding that they can make choices around how their data is shared (e.g. photographs being placed online or work samples being shared with others)
- practise the process of safe online interactions such as asking permission to interact online and seeking support from parents or carers before sharing any details online (personal or public)
- sort data using a T-chart into the categories from scenarios of being either personal or public data (e.g. a photo of a student in their uniform or a duck on the playground – this could be modified to a drag-and-drop activity using an interactive software program) (Figures 4 and 5)
- create a twist on a traditional fairytale or fable to show their understanding of the moral of having choice about sharing public or personal data to unfamiliar people, and share their story (e.g. as an e-book or video).

Links to the Australian Curriculum (v8.4)

Table 1: Aspects of the Australian Curriculum: Digital Technologies – Foundation (v8.4) which may be addressed depending on the task

<table>
<tr><td>Digital Technologies
Achievement standard</td><td colspan="3">By the end of Year 2, students identify how common digital systems (hardware and software) are used to meet specific purposes. They use digital systems to represent simple patterns in data in different ways.
Students design solutions to simple problems using a sequence of steps and decisions. They collect familiar data and display them to convey meaning. They create and organise ideas and information using information systems, and share information in safe online environments.</td></tr>
<tr><td>Strand</td><td colspan="3">Knowledge and understanding
Data representation
Processes and production skills
Collecting, managing and analysing data
Collaborating and managing</td></tr>
<tr><td>Content descriptions</td><td colspan="3">Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)
Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003)
Create and organise ideas and information using information systems independently and with others, and share these with known people in safe online environments (ACTDIP006)</td></tr>
<tr><td rowspan="2">Key concepts</td><td rowspan="2">data representation
data acquisition
interactions
impacts</td><td>Key ideas</td><td>Thinking in Digital Technologies
Systems thinking</td></tr>
<tr><td>General capabilities</td><td>ICT capability
Literacy
Critical and Creative Thinking
Personal and Social capability
Numeracy
Ethical Understanding</td></tr>
<tr><td>Cross-curriculum priorities</td><td>Sustainability</td><td>Learning area or subject connections</td><td>English
Mathematics
The Arts
Health and Physical Education</td></tr>
</table>

Learning area or subject connections

English

Learning in Technologies places a high priority on accurate and clear communication. The Australian Curriculum: Technologies is supported by and in turn reinforces the learning of literacy skills. Students need to describe objects and events; interpret descriptions; and participate in group discussions.

Mathematics

The Australian Curriculum: Technologies provides contexts within which Mathematics understanding and problem-solving skills can be applied and developed. The Digital Technologies curriculum supports students to apply the knowledge and skills that underpin pattern recognition, data acquisition, and interpretation and representation, which form the basis of the Mathematics strand, *Statistics and Probability*.

Health and Physical Education

The Australian Curriculum: Technologies takes account of what students learn in Health and Physical Education. In Digital Technologies, students have an opportunity to apply their knowledge of and skills in privacy, safety (seeking help and engaging respectfully) and giving or denying consent as they expand their communication and collaboration experience into online and networked environments.

Resources

- Australian Curriculum – Curriculum connections – Online safety
  www.australiancurriculum.edu.au/resources/curriculum-connections/portfolios/online-safety/
- Australian Curriculum – Curriculum connections – Respect matters
  www.australiancurriculum.edu.au/resources/curriculum-connections/portfolios/respect-matters/
- Exploring Digital Technologies through shopping – Years 3–6 (PDF download)
  www.australiancurriculum.edu.au/media/6788/classroom-ideas-3-6-shopping.pdf

Useful links

- Google: Be Internet Awesome resources
  beinternetawesome.withgoogle.com/en_us
- Playing IT Safe Framework and Alignment (PDF download)
  playingitsafe.org.au/wp-content/uploads/2020/05/AAMF5002-PlayingITSafe-Educator-Framework-and-Alignment-Document-FA_WEB.pdf
- Playing IT Safe – Share that photo
  games.playingitsafe.org.au
- NetsmartzKids – Be safer online
  www.netsmartzkids.org/activities
- Think You Know (teacher/parent resource)
  www.thinkuknow.org.au
- The Princess's Password (e-book PDF download)
  secureservercdn.net/45.40.146.28/814.5c1.myftpupload.com/wp-content/uploads/2019/08/ebook-princess-password.pdf
- Delivery for Webster (e-book PDF download)
  secureservercdn.net/45.40.146.28/814.5c1.myftpupload.com/wp-content/uploads/2019/08/ebook-delivery-for-webster.pdf
- Life Education – Be Cyberwise (registration required)
  www.lifeeducation.org.au/teacher-resources/bcyberwise
- Common Sense Education – Private and Personal Information (video, 1.5 min)
  youtu.be/MjPpG2e71Ec
- CSER: Public or Private checklist (PDF download)
  universityofadelaide.app.box.com/s/l55klkum392t80u4w3ik9x54zw6bqu5d

- Hello Ruby – Data Selfie
  www.helloruby.com/play/27
- Play School – Kiya's Excellent eBirthday (video, 30 min)
  iview.abc.net.au/show/play-school-kiya-s-excellent-ebirthday
- eSafety education
  www.esafety.gov.au/educators
- eSafety kids
  www.esafety.gov.au/kids
- eSafety education – Early Years program
  www.esafety.gov.au/educators/early-years-program
- eSafety education – Hector's World
  www.esafety.gov.au/educators/classroom-resources/hectors-world/your-personal-information-online
- eSafety education – Early Years posters
  www.esafety.gov.au/educators/early-years-program/teaching-posters
- eSafety education – classroom resources
  www.esafety.gov.au/educators/classroom-resources/be-secure/student-home
- Kids Helpline Online Safety Session booking
  kidshelpline.com.au/schools/sessions/online-safety
- Cyber Safety Project
  cybersafetyproject.com.au
- Bravehearts – Keeping kids safe online (parent information)
  bravehearts.org.au/what-we-do/education-and-training/for-parents/keeping-safe-online

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