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|  | Strand | Knowledge and understanding | Strand: Processes and production skills |
|  |  | Digital systems | Representation of data | Collecting, managing and analysing data | *Creating digital solutions by:* |
| Investigating and defining | Evaluating | Collaborating and managing |
|  | **Content Description** | Recognise and explore digital systems (hardware and software components) for a purpose (ACTDIK001 ) | 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) | Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004) | Explore how people safely use common information systems to meet information, communication and recreation needs (ACTDIP005) | Create and organise ideas and information using information systems independently and with others, and share these with known people in safe online environments (ACTDIP006) |
| **Sequence of Lessons / Unit** | **Approx. time rq’d** | **Year A or B** | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # |
| Online safety | 5 | F-1 |  |  |  |  |  |  |  | 3 |  | 5 |  | 5 |

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| **Years F-2 Achievement Standard** | **Years 3 and 4 Achievement Standard** |
| By the end of Year 2* Students identify how common digital systems (hardware and software) are used to meet specific purposes. (1)
* They use digital systems to represent simple patterns in data in different ways. (2)
* Students design solutions to simple problems using a sequence of steps and decisions. (3)
* They collect familiar data and display them to convey meaning. (4)
* They create and organise ideas and information using information systems, and share information in safe online environments. (5)
 | By the end of Year 4* Students describe how a range of digital systems (hardware and software) and their peripheral devices can be used for different purposes. (1)
* They explain how the same data sets can be represented in different ways. (2)
* Students define simple problems, design and implement digital solutions using algorithms that involve decision-making and user input. (3)
* They explain how the solutions meet their purposes. (4)
* They collect and manipulate different data when creating information and digital solutions. (5)
* They safely use and manage information systems for identified needs using agreed protocols and describe how information systems are used. (6)
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**Online safety**

It is important when accessing and sharing information online that students are aware of potential dangers and that they behave in a responsible manner. As an extension of classroom rules discuss rules for online safety and acceptable online behaviour. Students plan a retelling of a relevant text and create the story using a familiar presentation software. Explore bookmarked websites to gather information for a class context.

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| **Flow of activities** |  |
| Short text | **Staying safe online** Explore what personal information is safe to share online.  | **Behaving online** Explore rules that promote acceptable online behaviour. | **Apply online rules**Provide a collaborative task that enables students to apply rules for online behaviour.  | **Finding information**Explore bookmarked websites to gather information for a class context.  |
| AC alignment  | Evaluating(ACTDIP005) | Evaluating (ACTDIP005)Collaborating and managing (ACTDIP006) | Investigating and defining (ACTDIP004)Collaborating and managing (ACTDIP006)Evaluating (ACTDIP005) | Collaborating and managing (ACTDIP006) |
| Questions to guide exploration | *How do I stay safe online?* | *How should I behave online?* | *How can we work together online?*  | *How does the internet help me find information?* |
| What’s this about? | There are many situations, connected to the internet, in which people are asked for their personal information. Personal information can be used to identify a particular person and care must be taken when providing this information. It is potentially dangerous for strangers to have your personal information.Young children must check with a trusted adult before sharing any personal information online.  | All schools have rules for acceptable behaviour in the classroom.Acceptable behaviour extends into the online space. Two considerations include the protection of the student and how to behave socially. Your school may have a values statement that students are expected to adhere to. This could encompass staying safe online and acceptable behaviours.  | When undertaking a joint task to create a simple digital solution young students in particular need guidance and support about how to work together and manage the task. One way to facilitate students working together is to ask them to plan their solution through drawing. This provides an opportunity for students to think through their ideas and piggyback off one another to develop an agreed solution. This phase also offers an opportunity for teacher guidance to prompt student thinking and to clarify how certain aspects of the task may be achieved; for example: Who will do what part of the task? What resources are required? In what order can the tasks be done? Providing and gaining feedback on a digital solution in a safe online space enables students to apply appropriate social behaviours.  | Bookmark relevant, safe websites to prevent students from coming across inappropriate online content.  |
| The focus of the learning (in simple terms) | Help students to understand the importance of not sharing their personal details online without a parent’s or teacher’s permission. Use a modified celebrity head game to reinforce when it is appropriate to share personal information and when it is not. Develop some personas for trusted people, such as a teacher, police officer, mum, dad or older sister. Also develop some personas for non-trusted people, such as an online friend, a pop-up on the internet or an email from an unfamiliar person. Share the labels with the class. Have a student wear the labelled headgear of a trusted person. Explain that this is someone who is trusted and you can share your information with this person or in a situation they say is safe. Next, give another student a ‘celebrity head’ of an untrustworthy person that you would not share your personal information with. Discuss the ways that older people converse on social media or in an online game environment. Ask students to create a paper version of an online profile that shares personal information safely. The profile might include an avatar instead of a photo; first name or nickname instead of full name; and interests and hobbies. Create a visual display that indicates what personal information can be shared online and what can’t. Information that can’t might include full name, address, school, photo, date of birth, passwords, telephone number and email. You could laminate cards with a word and a picture and ask students to sort them into safe and not-safe baskets. Once the cards are sorted, students could put them on a masking tape ‘table’ on the floor. Then, with your help, they could take a photo of the cards, print the photo out, and display it in the classroom for reference.  | As an extension of classroom rules discuss rules for online safety and acceptable online behaviour.Refer to ways to remain safe online such as protecting personal information and identity. Consider stranger danger when on the internet. Draw up a set of rules with the class, particularly focusing on how to stay safe and behave online. In these tasks the emphasis can be on acceptable behaviour. The previous section was about what is safe and unsafe, which lends itself to following a set of rules. A focus on acceptable behaviour can lead to guidelines on how to behave appropriately. You may decide to do this with a focus on cyberbullying. Behaviour is about social norms, politeness, and how people manage themselves. Some prompts for discussion might include: * How do we treat each other in the playground?
* How do we act when talking to another student via a webcam?
* How do we treat each other when we work on a shared story?
* How do you give feedback on someone’s work put up online?

This could then lead into the students developing their own online guidelines. | View or read a relevant text such as a fable or fairytale and then discuss the key parts of the story. In pairs students create a photo story retelling. Students plan the retelling first. They then create the story using presentation software. Ask students to include such things as:* images\* (photographs/scanned student drawings or digital images created using a drawing program
* audio files (recordings of students retelling the story)
* text (typed text of their retelling).

\*Discuss why it is not appropriate to use illustrations copied directly from the text (ownership and copyright). Share the photo story in a safe online space, for example the school intranet collaborative space or a collaboration tool such as Seesaw or OneNote. Provide a process for students to view and give feedback on each other’s photo stories. Discuss acceptable online behaviour in regard to feedback. Note: This activity requires students to use the skill of abstraction (to focus on important information only). They will also need to use their skill in sequencing, which is important for reading comprehension as well as computational thinking. | Explore bookmarked websites to gather information for a class context. Show students how to bookmark a safe site so they can revisit it at a later stage.  |
| Supporting resources and tools and purpose/context for use.  | **Lesson ideas**[**Your personal information online**](https://esafety.gov.au/education-resources/classroom-resources/hectors-world/your-personal-information-online)These brief animations explore online safety and ways to protect personal information. The video ‘Details, details …’ provides information about online privacy. **Learn more** [Your online identity](http://kidshealth.org/en/kids/online-id.html)This article provides background information.[Protecting personal information](https://www.esafety.gov.au/esafety-information/esafety-issues/protecting-personal-information)This article provides background information. | [Kids’ rules for online safety](http://www.safekids.com/kids-rules-for-online-safety/)Use these rules as a guide and adjust and simplify for this age group. [Teaching digital citizenship: 10 internet safety tips for students](http://primarytech.global2.vic.edu.au/2017/11/01/teaching-digital-citizenship-10-internet-safety-tips-for-students/)Use this blog post to inform your discussion of rules for behaving online. | [Digital storytime](http://digital-storytime.com/top10.php?id=141)Use these online versions of fairytales.  | [ABC Education](http://education.abc.net.au/home#!/resources)This might be a useful example of a trusted safe site. [Fuse](https://fuse.education.vic.gov.au/Primary)This might be a useful example of a trusted safe site.  |
| Assessment | **Suggested approaches**Personal online profile **Achievement standard** **Create** and **organise** ideas and information using information systems, and **share** information in safe online environments. | **Suggested approaches**Presentation or demonstration**Achievement standard** **Create** and **organise** ideas and information using information systems, and **share** information in safe online environments. | **Suggested approaches**Artefact analysis **Achievement standard** **Design** solutions to simple problems using a sequence of steps and decisions.**Create** and **organise** ideas and information using information systems, and **share** information in safe online environments. | **Suggested approaches** Presentation or demonstration**Achievement standard** **Create** and **organise** ideas and information using information systems, and **share** information in safe online environments. |