Embedding career education in the Victorian Curriculum F–10

Digital Technologies, Levels 7 and 8

An existing learning activity linked to a particular learning area or capability in the Victorian Curriculum F–10 can be easily adapted to incorporate career education, enriching students’ career-related learning and skill development.

1. Identify an existing learning activity

**Curriculum area and levels:** Digital Technologies, Levels 7 and 8

**Relevant content description:** Analyse and visualise data using a range of software to create information, and use structured data to model objects or events [(VCDTDI038)](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDI038)

**Existing activity:** Exploring filtering options and conditional formatting in a spreadsheet.

**Summary of adaptation, change, addition:** Making links to the importance of data in the workplace as a basis for making decisions.

2. Adapt the learning activity to include a career education focus

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| Existing learning activity | Adaptations, changes or extensions that can be made |
| Teacher provides access to a spreadsheet containing data in defined categories. Students use sorting and filtering tools in the spreadsheet software to sort data, such as sorting a text column by alphabetical order, or a numerical category from smallest to largest value. | Teacher elicits student opinions about the importance of data and being able to create information based on data in many workplaces. Teacher should guide the discussion to ensure students are aware that digital skills are important to nearly all current and future roles.Using headers to structure data means that a given column of numerical data could indicate the number of hours that staff have worked, stock supplies or dates when orders have been placed. Being able understand the data enables businesses to make decisions like hiring more staff, purchasing more/less stock and reordering supplies. |
| Students focus on a different category within the data and apply conditional formatting to identify the smallest value and the largest value. | Teacher supports students to create information based on the maximum and minimum values, such as stock items that may not be selling compared to stock items that should be reordered from suppliers.  |
| Students select a recipe for a meal using the internet. They list the ingredients and quantities in a spreadsheet and collect the costs of the ingredients. They create a comparison table using different supermarket websites to compare cost data for all ingredients.  | Students compare the cost of each item from various stores, as well as the total cost for purchasing all ingredients. Teacher discusses with students their preference for ordering from one supplier that may have some more expensive items or ordering the cheaper items from each supplier. Teacher makes links with workplaces ordering supplies and how aspects such as cost, customer loyalty and ease of use can influence their decisions. For example, teacher explains that a café may pay more for a certain brand of coffee, but that additional cost is recouped through customer loyalty, as customers enjoy the better quality of the product and are willing to pay more/regularly for it. |
| Using data visualisation tools in the spreadsheet software, students create a graphical representation of their cost comparison. | Students extend their cost comparison by scaling their analysis up, such as calculating savings per week over a year or by increasing the recipe to provide a meal for their class. Students could conceptualise their scaled-up cost comparison graph as a tool used to persuade a manager to change suppliers for a certain product. Being able to see at a glance the comparative cost makes for a compelling business presentation. Teacher should explain that students are using communication skills to share the information taken from the data. |
|  | Teacher helps students to conceptualise how they could use the digital skills from the activity in their day-to-day lives; for example, comparing the cost of buying snacks at the canteen versus buying the same snacks at the supermarket in bulk. Teacher leads a reflection on the relationship between skills learnt at school, and skills that will be used in the workplace.  |

Considerations when adapting the learning activity

* Additional skills such as freezing cells so that they are always visible or hiding columns that are not relevant can assist students in maintaining focus on the defined categories. Teachers should provide workplace examples beyond the digital technology sphere to reinforce why these skills are relevant. For example, if people from multiple departments access a shared spreadsheet showing stages of a schedule, they may wish to freeze the cells that identify the data, but hide columns that do not apply to their work, so it is easy to interpret.
* This activity provides a valuable opportunity to expand students’ awareness of where these skills and activities might be relevant across a range of different work contexts, so teachers should ensure they have command of a wide range of examples with which to start such a discussion. The activity could be extended with a short research component to encourage students to explore this is in more depth.

Benefits for students

Know yourself – self-development:

* Being able to sort data and apply conditional formatting will assist students to make sense of data in specific contexts. By relating these skills to future work and ‘real-life’ decision-making, students see the benefit of this ability, and the importance of tackling new technical challenges with persistence.
* Understanding the use of data as a decision-making tool in the workplace encourages students to be adaptable and open to changing decisions based on new information.
* The ability to understand data and create information by describing the data in context can build students’ communication skills in formal environments.

Know your world – career exploration:

* Students explore the categories of data that are required in local industries or businesses, to increase their understanding of the world of work.

Manage your future – be proactive:

* Understanding how data is used as the basis for decision-making can help students to understand the reasons for some decisions made in workplaces, and how they can use similar processes in their own decision-making.