Embedding career education in the Victorian Curriculum F–10

Digital Technologies, Levels 3 and 4

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 3 and 4

**Relevant content description:** Recognise different types of data and explore how the same data can be represented in different ways [(VCDTDI020)](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTDI020)

**Existing activity:** Identifying different representations of data gathered by surveys.

**Summary of adaptation, change, addition:** Exploring how representations of data can be used to communicate for different purposes, including work-related contexts.

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 introduces ways to represent numbers. Teacher uses pictorial examples and student experience to demonstrate representations such as digits (7), text (seven), tally marks (~~||||~~ ||) or pictorial (:::.). Students identify where they have seen or used each representation. | Teacher works with students to identify the benefits of using each representation of numerical data. Teacher makes links to the reasons that businesses gather data. For example, a tally may be used in workplaces for the rapid continuous collection of data such as exit surveys or customer preferences, while a numerical representation is more appropriate for stock inventory or website traffic. |
| Students gather data from each other by creating and administering surveys. | Students identify and justify their chosen format used for collecting data while administering their survey. They collect raw data from their intended audience (for example, preference of food or mode of transport when travelling to school). Teacher draws the connection to ways that businesses collect data, including online surveys and sales figures. Teacher introduces some roles that interpret and use the data to make decisions in the workplace (i.e. in the context of a video game company, sales figures could be used by a sales team looking to focus their efforts or a game developer to know what sort of things the customers enjoy, in order to create a new game). |
| Students create a visual representation (such as a poster or digital presentation) to communicate their data to an audience and make conclusions based on their data. | In addition to the existing activity, teacher leads students to identify the variety of representations of data that they have used. For example, students may have collected their data in a tally. The same data is represented in a different way when students have created a bar graph or pictogram for their visual representation, and again when they have arranged their data numerically in a table. The conclusions that students have made when creating information may be represented as text.  Teacher helps students think of how these different ways of representing data might be used in the world of work. For example, data about customers purchasing different video games may be presented in a pie graph at a company-wide meeting, so everyone can see and interpret the data at a glance, whereas a finance team would need the data in numerical form. |
| Teacher assess student visual displays and the validity of the conclusions drawn. | Students publish a reflection on the advantages of each different representation of their data they have used in this activity. |

Considerations when adapting the learning activity

* Teachers may prefer to include a local business to use as an example when discussing workplace collection of data, and could invite a representative to speak to the class about how they use and represent data.

Benefits for students

Know yourself – self-development:

* As students conduct their surveys with their peers, they develop their ability to work with others.
* Considering how the same data can be presented in a variety of ways for different purposes encourages students to be adaptable and to consider how to present information in the best way possible for the intended audience.

Know your world – career exploration:

* Students develop an understanding that the same data can be represented in different ways, so that it can be stored and transmitted for different purposes. As they consider this in a workplace context, they can begin to imagine themselves using this knowledge outside the classroom.
* As they collect data, choose how to best display it, and consider how different roles use data, students engage in activities that give insight into the world of work.

Manage your future – be proactive:

* Students expand their skills in thinking critically and creatively when choosing a representation of data, maintaining accuracy when converting between representations and communicating in the most appropriate format. Through this, and as the teacher reinforces the importance of using data to making informed decisions, they develop their decision-making skills.