Embedding career education in the Victorian Curriculum F–10

Digital Technologies, Levels 5 and 6

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 5 and 6

**Relevant content description:** Design, modify and follow simple algorithms represented diagrammatically and in English, involving sequences of steps, branching and iteration [(VCDTCD032)](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD032)

**Existing activity:** Identifying the components of a flowchart that includes repeating steps and creating a flowchart for a classroom process.

**Summary of adaptation, change, addition:** Developing and implementing a flowchart, with opportunities for evaluation and improvement, and considering flowcharts within a workplace context.

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 models creating a flowchart as a diagrammatic representation of a classroom process involving loops of repeated steps (iteration) and explains the purpose of each shape. | Student teams use existing examples of flowcharts, such as school Occupational Health and Safety incident reporting flowcharts or conflict resolution flowcharts. Students build their interpersonal skills and group communication skills as they trace all paths in the flowchart, with a focus on identifying where a path may return to an earlier step as an example of iteration. |
| Teacher sets the task of creating a flowchart for a classroom process.  Teacher explains the need to be specific at each stage of developing an algorithm (flowchart) for use in a digital system, with paths for each decision that will be encountered. | Teacher and students identify current classroom or school procedures and list them. Students form action teams to select a procedure as a basis for a flowchart that their class will implement. Teacher explains that working in teams on projects and clearly defined procedures are common aspects of many work environments. Class conducts guided brainstorm of the types of workplaces in which a flowchart might be relevant, and the types of information that might need to be covered. For example, a local shop might use a flowchart to guide the process of preparing for the day.  Teacher and students co-develop assessment criteria for the flowcharts, incorporating criteria such as clarity, accuracy and inclusion of iteration in the flowchart.  Students create their flowcharts for the classroom procedure. They consider the varied outcomes that are possible from a series of steps and develop a plan for each potential path. Teacher reinforces the concept that these planning and analysis skills are applicable in a work setting as well as in the classroom. For example, the flowchart could be used to evaluate the responses from an interview for House Captain. The flowchart could help students determine the suitability of a candidate. Here, students could be supported to draw parallels between the activity and a real-world job interview. |
| Students create, follow and modify their flowchart. Teacher leads students to trace each path of their flowchart, identifying branching paths and repetition. | Teacher and students trial student-created classroom-procedure flowcharts for a defined period, so that students have opportunities to follow the various paths of the flowchart over time. Opportunities are made for students to modify their flowchart for further use. |
| Teacher assesses flowcharts. | Students and teacher assess flowcharts using student-developed criteria, so to practise the skill of making judgements with reference to clearly defined criteria. |
| Class moves on to next activity. | Teacher guides reflection on skills students used in creating and evaluating their flowcharts (teamwork, communication, decision-making, critical thinking). Students consider where these skills might be useful beyond a school and the classroom. Teacher should relate this reflection directly to local business or industry where possible. Students should reflect on whether they feel these are skills they would enjoy developing or using in future. |

Considerations when adapting the learning activity

* Teachers will need to provide accurate examples utilising the layout and conventions they will use as a basis of assessment. They will need to assist the class in developing their peer assessment criteria and compare their own judgement with that of student groups.
* Teachers will need to pre-empt and plan for opportunities where student-developed flowcharts omit or conflict with established school procedures or have the potential to lead to unsafe circumstances.
* Teachers will need to identify how/why local businesses would use procedural flowcharts to reinforce the career focus of the activity.

Benefits for students

Know yourself – self-development:

* Analysing a problem to separate it into distinct steps or decisions is a strategy that can be applied in many areas of learning and can support students working in groups on extended projects.
* Testing their own flowchart and testing the flowcharts of others encourages students to engage with a different perspective and to reflect on the clarity of their written communication in steps and decisions.

Know your world – career exploration:

* Teachers encourage students to be lifelong learners by supporting them to learn new skills and framing them as employability skills (written communication, planning, analysis) that will be used throughout their lives.
* As students are supported to draw links between their classroom processes and the use of procedural flowcharts in the workplace, they understand the relationship between work and society.
* By following and altering their flowcharts based on evidence, and assessing them via defined criteria, students engage in activities that reflect the world of work.

Manage your future – be proactive:

* By considering the outcomes that are possible from a series of steps and developing a plan for each potential path, students practise strategies for making informed decisions.