Embedding career education in the Victorian Curriculum F–10

Design and Technologies – Materials and technologies specialisations, Foundation to Level 2

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, sub-strand and levels:** Design and Technologies – Materials and technologies specialisations, Foundation to Level 2

**Relevant content description:** Identify how people create familiar designed solutions and consider sustainability to meet personal and local community needs ([VCDSTS013](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDSTS013))

**Existing activity:** Exploring how a local product is designed by people for a purpose and meets social needs, and adapting an existing design based on observation.

**Summary of adaptation, change, addition:** Exploring who is involved in the process of identifying a social need and meeting it effectively.

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 |
| Students explore how a local product, such as a bus shelter, is designed for a purpose and meets social needs. Teacher leads a discussion on designed solutions in the local area, such as bus shelters, picnic areas and play equipment. They discuss how these things are designed and installed to meet needs in the community. Students list any other designed solutions they can think of and who they are for. | Teacher leads a discussion to identify the roles involved in creating a designed solution. They discuss whose role it is to identify a need in the community and find out who would use the designed solution. Who would do the designing, and who would build/install/create the product? How do we know that the finished products meet the needs of the community? |
| Teacher selects one designed solution, such as a bus shelter, as an example case study. Using images from local council websites, Google Earth, and/or and in-person visit, students identify features of the product, including its size and materials used in construction. They consider who the item is for, and who in the community might not be able to use the item (for example, would someone using a wheelchair or pushing a pram fit under the bus shelter?). Students discuss if the current bus shelter provides enough shelter from sun or rain. Students consider (e.g. through observation) how busy the bus shelter is and if there is enough room for everyone to wait under cover. | For the example chosen, students identify the roles involved in the product’s creation. For example, what roles are involved in the creation of a bus shelter? Who works in those roles? Students consider what skills are needed to be successful in those roles. Students should be challenged/extended to move beyond stereotypes when identifying who might work in a particular role and what makes a person successful in those roles (see ‘Inspiring the future – Redraw the balance’ in ‘Additional resources’). Teacher should make particular note of girls being encouraged to work in, and finding success in, construction and engineering pathways.Teacher can facilitate a visit from someone involved in the design and/or construction of the designed solution (e.g. local council for bus shelters) to discuss their work in more detail.  |
| As a class, students discuss changes they would make to the product based on the answers to the above reflection. Any new or changed features can be displayed on the interactive whiteboard. In small groups, students draw suggestions for a redesign of the shelter using these features. Students could use masking tape or chalk and a tape measure to mark out a life-size version of their redesign if this activity is completed outside. | Existing activity runs unchanged. |
| Students finalise their individual designs on paper or digitally and present to the class, explaining the changes they made, who would be able to use the bus shelter and the rationale behind their changes. | Students provide constructive feedback to their peers as though they were members of the community providing feedback on a proposal for their area. They discuss what they like about the proposed solutions and what else they would like to see. Students revise their proposals as needed. |

Considerations when adapting the learning activity

* Engineers Without Borders run outreach programs aimed at educating primary students about the work of engineers, with a focus on encouraging Aboriginal and Torres Strait Islander students, girls and people from low socioeconomic backgrounds.
* If a speaker visits the school to discuss their work, they could be asked to provide feedback on the students’ designs.
* The short video ‘Inspiring the future – Redraw the balance’ is included as professional learning and inspiration for planning for teachers.

Additional resources to help when adapting the learning activity

* MullenLowe Group, [Inspiring the future – Redraw the balance](https://www.youtube.com/watch?v=qv8VZVP5csA)
* [Engineers without borders](https://www.ewb.org.au/project/school-outreach/)
* State Government of Victoria, [Victoria’s women in construction strategy](https://www.vic.gov.au/victorias-women-construction-strategy)

Benefits for students

Know yourself – self-development:

* Students learn to listen and communicate effectively in groups.
* Students recognise the value in being adaptable.

Know your world – career exploration:

* Students understand the world of work and learn about the labour market.
* Students see the relationship between their studies, work and society.
* Students develop ICT skills.

Manage your future – be proactive:

* Students learn and explore careers, particularly in construction and engineering.