Embedding career education in the Victorian Curriculum F–10

Design and Technology – Engineering principles and systems, 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:** Design and Technology - Engineering principles and systems, Levels 7 and 8

**Relevant content description:** Independently develop criteria for success to evaluate design ideas, processes and solutions and their sustainability ([VCDSCD052](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDSCD052))

**Existing activity:** Developing criteria that focuses on sustainability and using it to compare the design features of Ford U cars to a car of choice.

**Summary of adaptation, change, addition:** Exploring the skills related to developing criteria and 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 |
| Prior to running this activity students should be aware of the meaning of the word ‘sustainability’ and be familiar with renewable and non-renewable energy resources. Teacher leads a discussion on sustainability in the context of car production and design, using the following questions as prompts:* What does sustainability mean in the context of a car? Sustainability can include environmental, social and economic factors.
* What are the implications if we only consider environmental sustainability in regards to car design? Consider issues such as the effect on local jobs, the cost, etc.
 | Teacher leads a discussion on the intersection of sustainability and the workforce. Students use the following questions as prompts for discussion. * Who is involved in producing design ideas that involve sustainable processes and resources?
* What kind of businesses are involved in making sustainable products?
* What are the skillsets required to become a professional who makes sustainable products? What qualifications do they require?
* Who markets these products or services?
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| Students construct a detailed list of criteria that can be used to assess a car, from the perspective of someone looking to buy. It should cover the aesthetic design, affordability, comfort, sustainability and appeal of the car.  | Students research jobs that identify what consumers are looking for when they want to buy a car (e,g. data analyst, market researcher, directors of car companies). Assuming the role of a market researcher, students collect data from their peers to assess what makes a car appealing to a consumer. This data becomes the assessment criteria.  |
| Students use their criteria to compare the features of the Ford U (see Additional resources) with a car of their choice and generate a comparison table to point out the merits and demerits of each design.Students create a visual representation of their findings, including a recommendation of which type of car to purchase and why. | Existing activity runs unchanged, but students use their ‘market research’ to develop criteria.  |
| Students present their findings to the class. | Students present their findings to the class, noting whether either car meets the criteria. If one of the cars matches the class’s criteria, students can act as a marketing executive pitching/advertising the car. If neither car matches the criteria, students can make recommendations as to how one car design could be improved to be more appealing. |
|  | Teacher leads a whole class discussion on the roles explored in the activity. Students discuss skills developed, roles they found interesting and any challenges they faced. |

Considerations when adapting the learning activity

* Teacher may wish to familiarise themselves with answers to the questions mentioned in the activity.

Additional resources to help when adapting the learning activity

* New Cars, [Ford U concept](http://www.new-cars.com/concept/2003/ford-u-concept.html)
* [JobOutlook](https://joboutlook.gov.au/)

Benefits for students

Know yourself – self-development:

* Students build awareness of personal interests and strengths by creating their own criteria and reflecting on their experience in the activity, including points of interest and challenges .
* Students develop effective communication skills by surveying their peers and presenting their findings in a persuasive manner.

Know your world – career exploration:

* Students learn about the different roles of people who work towards sustainability by discussing skillsets and taking on these roles.
* Students learn to use information and technology effectively through the production of their list of criteria and presentation of their findings.

Manage your future – be proactive:

* Students understand that a variety of career options are possible in a single industry by exploring varied professions involving in designing and selling a product, which builds understanding of the significance of a flexible and adaptable career action plan.