Embedding career education in the Victorian Curriculum F–10

Design and Technologies – Engineering principles and systems, Foundation–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 and levels:** Design and Technologies - Engineering principles and systems, Foundation–Level 2

**Relevant content description:** Explore how technologies use forces to create movement in designed solutions ([VCDSTC014](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDSTC014))

**Existing activity:** Practically exploring the forces used in simple tools to create movement.

**Summary of adaptation, change, addition:** Investigating occupational examples where this type of tool is used to create force and role-playing its use in an occupation.

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 uses a ruler as a lever to lift an object from a table to demonstrate how input creates a process that results in an output. Teacher discusses how forces and motion operate. | Teacher extends the activity by showing images of different objects that are used as levers in the workplace, such as scissors, shears, wheelbarrows, pliers, etc, and leads a discussion on levers in a work context using the following questions as prompts:   * What kind of jobs would need to use these levers? * Who would use these levers? * What would they do with them? * What are the safety issues that these professionals using levers need to be careful about?   Teacher should ensure that students are exposed to a range of roles that might use an object as a lever. Students’ imaginations should be extended by the presentation of tools in a range of industries. For example, the discussion could focus on one item – scissors. Students consider which professions use scissors. Answers might include hairdresser, seamstress/tailor, gardener, florist, shop assistants, traditional sheep shearer, chefs, cooks, electricians (tin snips), surgeon, nurse, paramedic and firefighter.  Teacher lists the main points of the discussion for students to refer to later. Images may be a useful prompt for lower literacy levels. |
| Students are given different levers (e.g. scissors) or images of levers (e.g. a crane, a see saw) and discuss their operation and how forces and motion operate. | Students role-play as a professional of their choice from the list. These might include: ‘A gardener or a construction site worker using wheelbarrows’, ‘A carpenter using hammer claws’, ‘A chef using tongs’, ‘A tailor using scissors’, ‘An electrician using pliers’, ‘A crane operator’, ‘Mechanics using tyre levers’ or ‘A locksmith repairing door levers’. |
| Students choose one image or object and to present to the class about how it uses force and movement to perform a particular job. | During or after the role-play, students explain what they do with the lever and how it works. Students talk about the risks and the safety measures that they need to think about while using the lever to complete their jobs. Students discuss why they were interested in the occupation they chose for the role-play. |

Considerations when adapting the learning activity

* Prior to the activity, teacher will have to consider how they will draw out not only the names of professions, but a sufficiently broad and accurate list of activities to be role-played.
* Teacher should ensure that any stereotyped assumptions, such as ‘only boys can be mechanics’ or ‘nurses are girls’, are challenged and students’ thinking extended.
* Teacher may consider providing posters or pictures of different professionals using a lever to complete their jobs.
* Teacher should consider their students’ level of understanding of the workforce and be prepared to introduce information about jobs that use levers. Narrowing the topic of conversation to one kind of lever (e.g. scissors) can help refine the focus of the activity without restricting the types of careers explored.
* Teacher may consider inviting a professional who uses levers in their job to interact with students to talk more specifically about their role and how they use tools.

Additional resources to help when adapting the learning activity

* The Careers & Enterprise Company, [What works? Career-related learning in primary schools](https://www.careersandenterprise.co.uk/sites/default/files/uploaded/1145_what_works_primary_v7_digital.pdf)

Benefits for students

Know yourself – self-development:

* Students gain awareness of their interests by choosing a professional to role-play and reflecting on whether they are curious to find more about the role.
* Students learn to be effective communicators and build confidence by presenting their ideas in front of the class.

Know your world – career exploration:

* Students investigate some aspects of careers and occupations that use levers to fulfil their jobs, thus contributing to their capacity to understand work.
* Students are motivated to be lifelong learners by inviting a professional to talk about the nature of their job, what they do to find solutions and the importance of learning new skills.

Manage your future – be proactive:

* Students think critically and creatively about presenting information thereby making efficient decisions.