Embedding career education in the Victorian Curriculum F–10

Science, 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:** Science, Levels 7 and 8

**Relevant content description:** Interactions between organisms can be described in terms of food chains and food webs and can be affected by human activity. ([VCSSU093](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCSSU093))

Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations. ([VCSIS113](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCSIS113))

Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations ([VCSSU090](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCSSU090))

**Existing activity:** Researching examples of human impacts that disrupt food chains and food webs and communicating these findings to the public.

**Summary of adaptation, change, addition:** Exploring jobs/roles that are involved in developing and implementing management strategies and/or solutions to the human impacts identified.

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 |
| In groups, students negotiate with teacher about a human impact on a food chain or food web that they want to investigate. These impacts might include a pest species, deforestation or agricultural practices. | This activity can be extended by supporting students to consider organisation and government solutions and/or management strategies to the human impacts identified.  Students research who is responsible for developing solutions and or/management strategies related to their chosen food chain or food web. They look at how they identify the human impacts and how they ensure solutions and/or management strategies are appropriate for the selected context. Students explore documentation outlining environmental management strategies for their chosen food chain or food web. This can be done by inviting relevant guest speakers and/or using documentation publicly available from organisations such as local councils and/or Greenpeace.  Teacher guides students to consider the various people involved in the development and implementation of solutions and/or management strategies they have identified and what the pathways to each role might be. They also consider how the roles work together to achieve the desired outcomes.  They consider the roles available in government, not-for-profit and private sector organisations and how they can get involved – for example, volunteering with Landcare to assist in the removal of pest species. |
| Students research the impacts of human activity on their chosen food chain or food web and then develop a video outlining to the community the impact they are having and what they can do to reduce their impact. Students should be aware of the reliability of their research. They may need to analyse how humans are impacting the environment, and how changing behaviours may affect peoples’ work.  Students should allocate parts of the task to individuals within their group based on skills, strengths and interests. As the work progresses, group members should seek out and act on feedback. |

Considerations when adapting the learning activity

* Teacher may need to share examples of ecosystems, to ensure a good range of food chains or food webs are investigated and so students will be able to find information about the impacts of human activity and appropriate management strategies.
* Students would benefit from a local council member visiting to discuss their role, how their work is determined by what is required in the community and what they need to consider when developing environmental management strategies.
* This activity presents cross-curricular opportunities in fields such as geography.

Benefits for students

Know yourself – self-development:

* Students build their communication skills by interacting with team members, take on other peoples’ opinions and ensuring even distribution of work within their group.
* Students learn to be active listeners and respectful team members when seeking out and giving feedback.
* Students learn to identify skills and strengths in themselves and others and recognise the value of assigning tasks based on these.

Know your world – career exploration:

* Students learn to present their research and work to a wider community.
* Students develop strategies for filtering information and making judgements about what is reliable research. They analyse how managing human impacts on the environment influences the work people are doing.
* Students learn about a broad range of science careers that stem from ecological issues by reflecting on the management strategies that exist to deal with the impacts of human activities.

Manage your future – be proactive:

* Working in a group towards a common goal allows students to develop skills in collaboration, planning and using time effectively.
* Students practice thinking critically about the effect of humans on the environment and strategies to manage this impact.