

# Helping students to take action

Students are often passionate about their world, particularly about sustainable action. Many joined recent student-lead marches for climate change, to act about a crisis they felt powerless to change. So how can we help students take action on issues like climate change?

## Links to the curriculum

NZ Curriculum: Education for sustainability at all levels and in achievement objectives for:

- *Health and Physical Education* - Healthy Communities and Environments
- *Science* - the Nature of Science; Participating and Contributing; Planet Earth and Beyond; Living World
- *Social Sciences* - Place and Environment
- *Technology* - Technological Knowledge; Technological Practice

Te Marautanga O Aotearoa:

- *Hauora* - Taiao (health and environment)
- *Pūtaiao* - Papatūānuku
- *Hangarau* - Concepts of hangarau
- *Pāngarau* - Using pāngarau
- *Tiakanga-a-iwi* - The changing world

## Research

Jensen and Schnack's 1997 research on the Action Competence approach in Environmental Education concluded that the development of Action competence - a person's ability to act is an overall objective of environmental education. In this subject students learn to analyse the nature of environmental problems and how to do something about it at an individual and a community level. Taking action helps students deal with the anxiety and worry they already

*Many schools were involved in tree planting at Whaiwhakareke, Hamilton on Arbour Day. This action helped restore a local wetland area to its previous biodiverse state. Photo: Chris Eames.*

feel about climate change, while teaching them skills they need to be active citizens.

## Components of action competence

- **Knowledge** – Understand the problems, causes, possible solutions; use critical thinking
- **Make connections** – To head, heart, hand. Students need commitment – motivation, assertiveness, courage. Affect (emotions and values) is also important.
- **Vision** – How conditions might look in the future, what we want to achieve. Some students are focused on themselves in the now and have difficulty seeing themselves in the future. Teachers need to help them put themselves in that future.
- **Action experiences** – Students decide what action to take, identify the skills needed, practice, communicate with peers, elders, experts. Students need support as they develop these skills and as they deal with failure and find next steps.
- **Reflect** – What have we learned? How has the action affected body, mind and spirit?

The development of action competence is different from a typical learning activity and from behaviour change. It is not about changing the world, but about participating in deciding on an action and carrying it out. It includes learning how to communicate with and organise people and developing the skills and flexibility to deal with unexpected consequences.





Students monitoring stream health. Photo: Chris Eames

## Types of student action

The actions students take can be:

- **Direct** – These people-to-environment interactions contribute to solving the problem; e.g. put recycling bins in place, reduce water and energy consumption.
- **Indirect** – These people-to-people interactions influence others to solve the problem; e.g. make posters, write letters, engage in debates. Students will often get little or no response from politicians and companies targeted in their actions, and need to be helped to explore alternatives. However, indirect actions can lead to direct actions.

## Tips for teachers

When teaching about environmental concerns teachers walk a fine line. Environmental education teacher Bridget Glasgow says: “A science-oriented approach can help us to know more about environmental issues but not necessarily to act and so can make students feel powerless. Too strong a focus on individual action gives a simplistic, small-scale approach to dealing with causes of worldwide problems and does not develop a critical and global understanding of such issues. So when teaching we need to put individual actions and their potential into perspective, both locally and globally”.

Chris Eames of Waikato university has been funded to study action competence in NZ primary and secondary schools. Bridget has worked in Environmental Education for more than 10 years. They have both learnt a lot

about what works in this field.

“Action-taking is a way of empowering students, giving them agency,” says Chris. “It is problematic if we set them up to fail. For example, students pick up litter on a beach and feel good about the difference they have made but go back seven days later to the same mess. This is because we are dealing with the symptoms and not the cause. Cleaning up beaches and banning plastic bags are symptoms of our consumption practices. We need to deal with the drivers of these issues; like reducing greenhouse gas emissions by using less fossil fuel”.

Actions need to be “manageable and achievable”, Bridget has found. “Students are learning how to take action, not how to solve the problems of the world. We need to give them the skills to do this. Action is in the NZC in participating and contributing (part of both Key Competencies and Nature of Science objectives). In science we can address socio-scientific issues such as vaccinations and help students to take actions.”

## Climate change in the classroom

There are things we can do to support students wanting to take action on climate change:

- Stimulate good conversations in the classroom – what is climate change?
- Explore the science – it is reasonably well understood, but complex. Projections are thought to be sound, although social, cultural, economic consequences are less clear.
- Easily demonstrate climate change – simulate a glass house by measuring temperature under plastic sheet or glass in the sun.
- Google “10 steps for climate change” to find many ideas of actions to take.
- Greenhouse gas emissions are key, from humans and others. Ask students:
  - Where in your life is carbon emitted?
  - How can we reduce these - at home? At school? Locally? Nationally?



## Difficulties and pitfalls

- If taking students offsite, think carefully through EOTC and safety issues – they are manageable.
- Parents can challenge the school if their children are asking the family to make changes and the caregivers do not see that as important. “Try to be sensitive and keep them onside,” says Chris. Such complaints can also lose support from principals.
- Caretakers can see the school grounds as their preserve and be a stumbling block sometimes; for example, if students want to plant a garden. Make the ground staff feel empowered and part of the process.
- Some teachers can find the ambiguity of true inquiry difficult.
- Teachers need to release control and decision-making to students in a way they may not have done before.
- Teachers often will not know the skills students need to learn until they need it – Chris says you tend to be “building the plane while you are flying”.

## Links

Jensen & Schnack’s 1997 research: [Action Competence Approach in Environmental Education](#)  
[Education for sustainability](#)  
[NZ Association for Environmental Education](#)  
[Toimata Foundation](#) and [Enviroschools](#)  
[Volunteering for conservation](#)

## Ngā Kupu

[Taiao](#) Environment  
[Āhuarangi](#) Climate  
[Huringa huarere](#) Climate change  
[Utu](#) Reciprocity - maintaining balance  
[Kaitiakitanga](#) Obligation to protect Papatūānuku, mother earth  
[Para Kore](#) Zero waste  
[Mōrearea](#) Crisis

From *Te Aka Maori Dictionary*

*Auckland secondary students rallied for climate change on March 15. Photo: Claire Manukia*



**NZASE**  
New Zealand Association of Science Educators

Representing the needs of science teachers