

# **Better Understanding Action Competence and the New Zealand Curriculum in Enviroschools**

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# Action competence

- Is an EDUCATIONAL goal
- Has an inherent goal of developing *competent* participants in society
- Facilitates intentional actions with respect to the environment and health
  - Problem-oriented, cross-curricular, **holistic**
  - Being informed via the interaction of science, social sciences and cultural concepts and knowledge
  - Acknowledging ‘problems’ as part of society and learning how to connect with conflicting interests
  - Teaching and learning uses participatory and democratic approaches

Research Programme for Environmental and Health Education at the  
Danish School of Education, Denmark

# Action Competence is NOT

- Educating for a particular view or changing behaviour in a certain direction
- Not about solving the problems of the world
- About people, the environment and the consequential issues being separate

Search: action competence & conflict (the original research on AC in Denmark, published in 1999)

Fontes (2004), Mogensen & Schnack (2010) – Environmental Education Research Journal

# Six aspects of action competence

- Experience - what you do, feel and how you react
- Reflection - critical
- Knowledge - about sustainability issues
- Vision for the future - ability to envisage and participate in sustainable futures
- Actions -direct and indirect and the skills to plan and take action
- Connectedness - linking knowledge, attitudes, values and behaviour to actions

<http://www.tlri.org.nz/investigating-relationship-between-whole-school-approaches-education-sustainability-and-student-lear/>

# Experience

## Learner

## Teacher

## Possible evidence of this

Experience refers to a state, condition (feelings) or an event that has happened. The interpretation of this experience may be personal and/or collective.

A **learner** has experiences of the world which they interpret through the following:

A **teacher** supports students to experience and interpret the world in order to develop personal understanding in authentic settings through the following:

Evidence could take the following forms:

### Explanation

To be action competent, a learner should have a range of experiences to develop their understanding, commitment and engagement with sustainability issues. This includes learning *in* the environment and *about* the environment to connect the learner to the environment that the issue is situated in and engage their motivation and passion as in the motto 'head, hearts and hands' or 'think, feel, act'. This component develops the 'heart/feel' aspect.

### (Suggestions)

- Visiting and knowing about local places and habitats and show emotion related to a particular place and/or situation (e.g. T & MS)
- Knowing local places of significance and their relationship to them (such as whakapapa, connections to livelihood)
- Doing things in and about the environment such as observe nature, gather data, play games (e.g. R, PC & MS)
- Showing commitment and desire for a place and/or issue (e.g. MS)
- Being interested in and inquiring about the world beyond the local environment (e.g. PC)
- Adapting and developing their ideas as a result of experience (e.g. T)
- Initiating and planning experiences for themselves and/or others (e.g. PC)

### (Suggestions)

- Planning and implementing experiences that are active and reflective in and beyond the classroom
- Using experiential learning processes
- Using cooperative learning processes
- Providing opportunities for students to interact with others in the community
- Supporting students to connect ideas between and across experiences
- Supporting students to examine their feelings related to an experience
- Collaborating with students to co-construct learning experiences
- Encouraging emotional responses and connections to environments and places

### (Suggestions)

- Photographs of students engaged in learning beyond the classroom
- Photographs of students engaged in experiential learning
- Students talking about learning in the environment
- Students' conversations and descriptions
- Student work that expresses their views of an experience and what they have learnt
- Plans that indicate learning experiences beyond the classroom
- Plans that indicate learning is based on experiences not just pre-provided information

# Framework example - Experience

Aspect	Experience
Definition	Experience refers to a state, condition (feelings) or an event that has happened. The interpretation of this experience may be personal and/or collective.
Explanation	To be action competent, a learner should have a range of experiences to develop their understanding, commitment and engagement with sustainability issues. This includes learning <i>in</i> the environment and <i>about</i> the environment to connect the learner to the environment that the issue is situated in and engage their motivation and passion as in the motto 'head, hearts and hands' or 'think, feel, act'.

<http://www.tlri.org.nz/investigating-the-the-relationship-between-whole-school-approaches-to-education-for-sustainability-and-student-learning/>

# Framework example - Experience

Aspect	Experience
<b>Learner role</b>	<p>A <b>learner</b> has experiences of the world which they interpret through the following:</p> <ul style="list-style-type: none"><li>- Visiting and knowing about local places and habitats and show emotion related to a particular place and/or situation (T and MS)</li></ul>
<b>Teacher role</b>	<p>A <b>teacher</b> supports students to experience and interpret the world in order to develop personal understanding in authentic settings through the following:</p> <ul style="list-style-type: none"><li>- Planning and implementing experiences that are active and reflective in and beyond the classroom</li></ul>
<b>Evidence</b>	<p>Evidence could take the following forms:</p> <ul style="list-style-type: none"><li>- Student work that expresses their views of an experience and what they have learnt</li></ul>







**Connectedness**

●A teacher supports students to make connections between their knowledge, attitudes and values, and actions to provide coherence and engagement in learning

**Experience**

●A teacher supports students to experience and interpret the world in order to develop personal understanding in authentic settings

**Reflection**

●A teacher supports student reflection by using tools that encourage deep and critical thinking

**Knowledge**

●A teacher supports students to become creators, seekers and users of knowledge for sustainability by providing a range of contexts and opportunities for learners

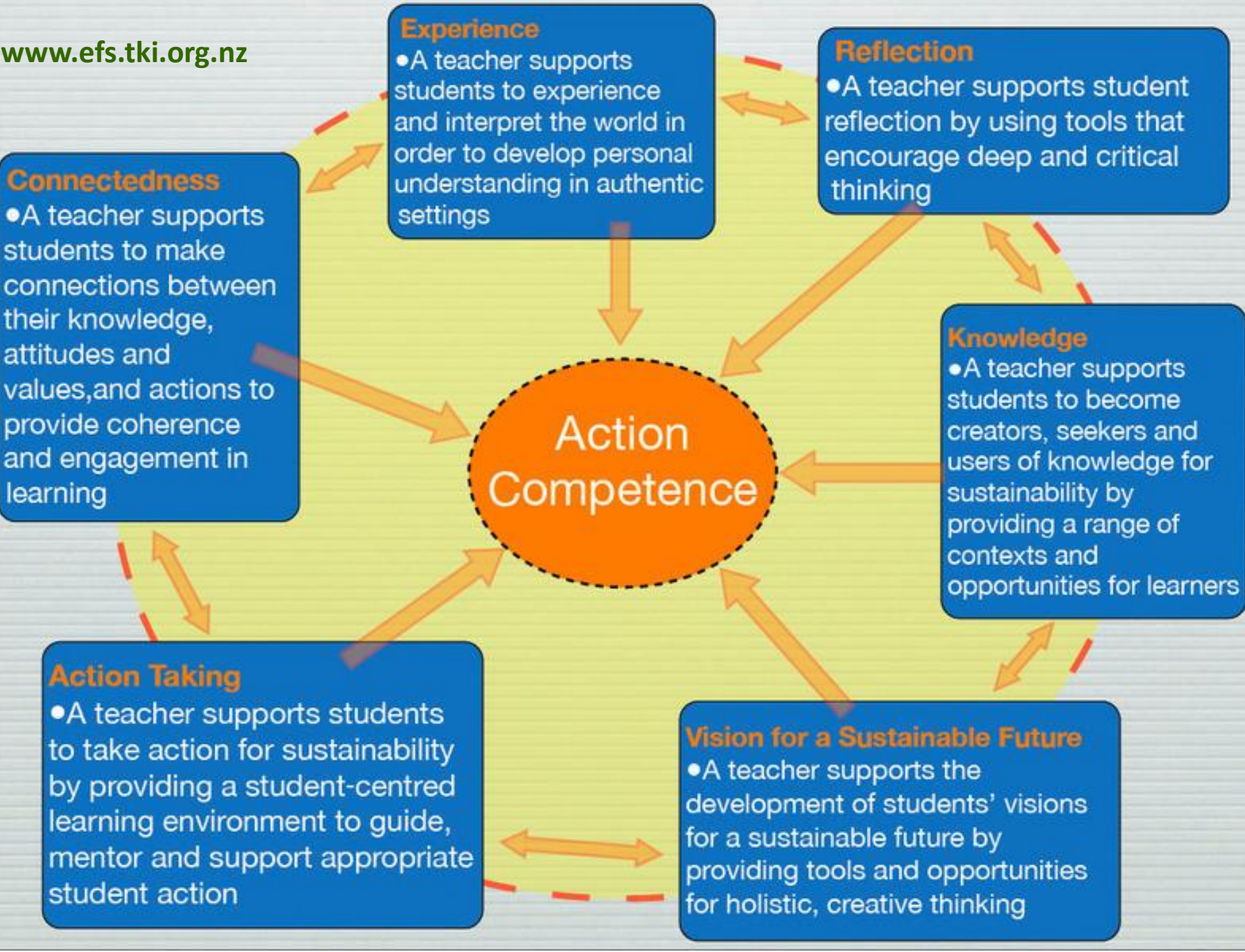
**Action Taking**

●A teacher supports students to take action for sustainability by providing a student-centred learning environment to guide, mentor and support appropriate student action

**Vision for a Sustainable Future**

●A teacher supports the development of students' visions for a sustainable future by providing tools and opportunities for holistic, creative thinking

**Action Competence**



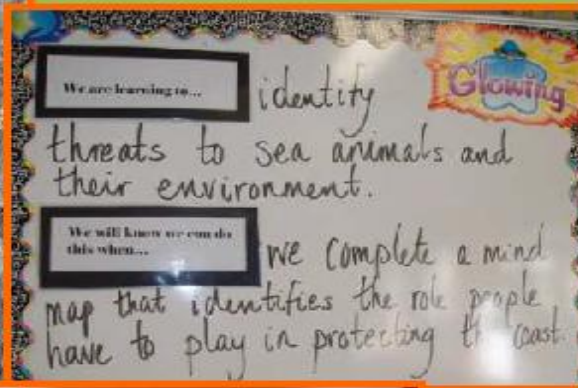
## ***Better understanding educational outcomes connected to the New Zealand Curriculum in Enviroschools***

**Final report**

**September 2010**

**Prepared for  
The Director of the Enviroschools Foundation**

***By Faye Wilson-Hill  
Summit Facilitation***



# Teaching and learning in action competence – general findings

Competent participants – Action focused

- Have the expectation of action
  - What are we doing? Why are we doing it? Where are we headed?
- Share the purpose/s (units of work AND lessons)
  - Dual outcomes
- Be flexible and responsive
  - Take time to make connections

# Action competence and literacy findings

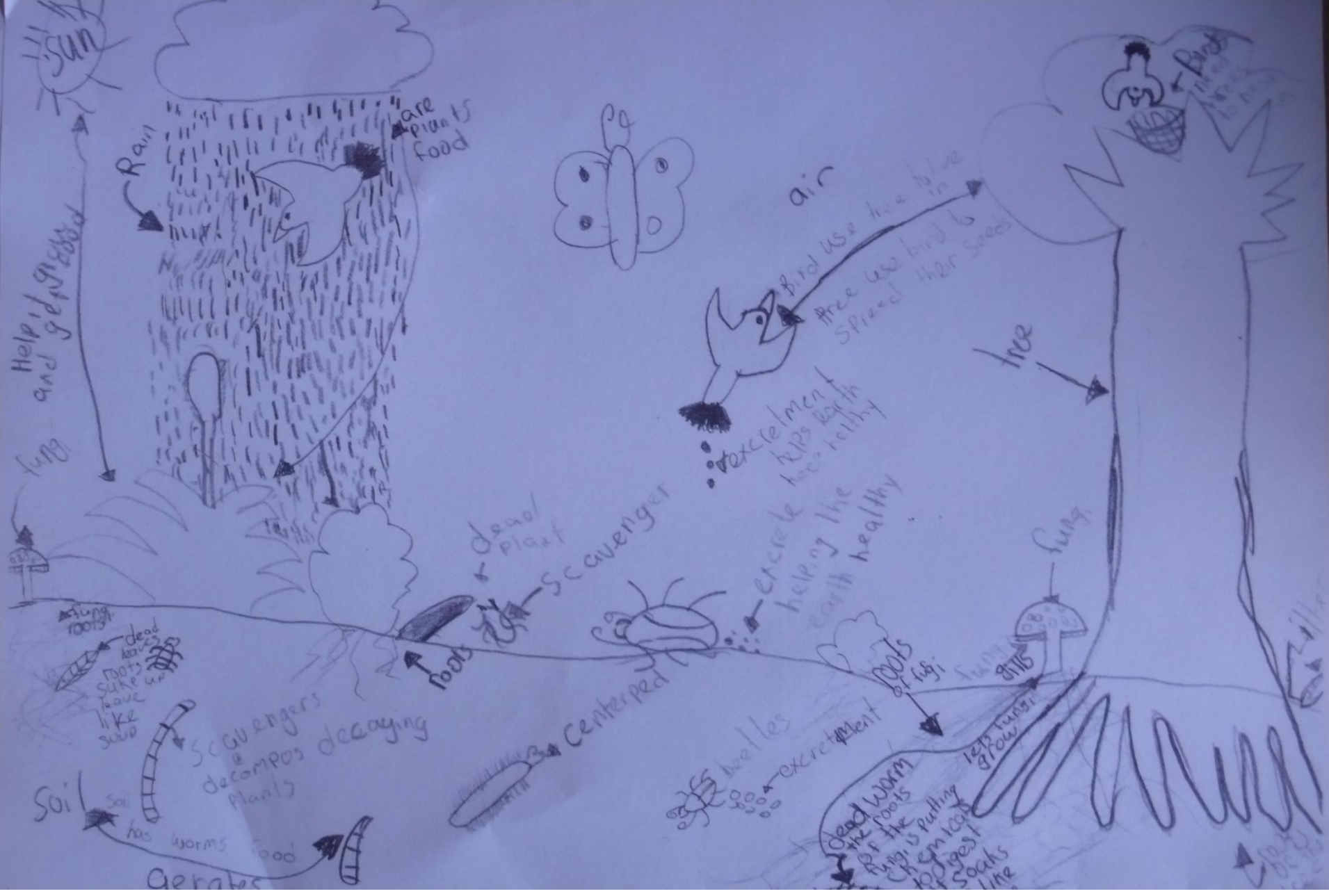
- Literacy essential for AC (holistic knowledge)
- **Enhancing students vocabulary** development through hands-on learning experiences that helped students make connections to abstract ideas and concepts;



Experience Concrete	Vocabulary from the experience	Vocabulary being extended <i>Concept within concept</i>	Connections to concepts through vocabulary <b>Abstract</b> Often identified as an outcome for the unit of work
A visit to the botanic gardens to observe, explore and experience the changes of autumn (Year NE -3)	Sort leaves by: Size - <i>big, huge, small, tiny, long</i> ; Shape - <i>pointy, round, oblong</i> ; Texture - <i>spiky, crinkly, dry</i> ; Colour - <i>brown, yellow, red</i>	<i>Deciduous, evergreen</i>	<i>Changes</i>
Planting seeds and waiting for them to grow (NE to Y1)	<i>Seeds, soil, grow, water, sun, roots, shoots</i>	<i>Germination, growing Living, Non-living, environment</i>	<i>Biodiversity, equity (respect for all life)</i>
Native bush area in the school grounds (Year 5)	Plants, animals, wildlife, insects, tui, fantail	<i>Ecosystems, habitat, Native Classify, food webs, structure and function of plants</i>	<i>Inter-relatedness, interdependence kaitiakitanga, biodiversity</i>

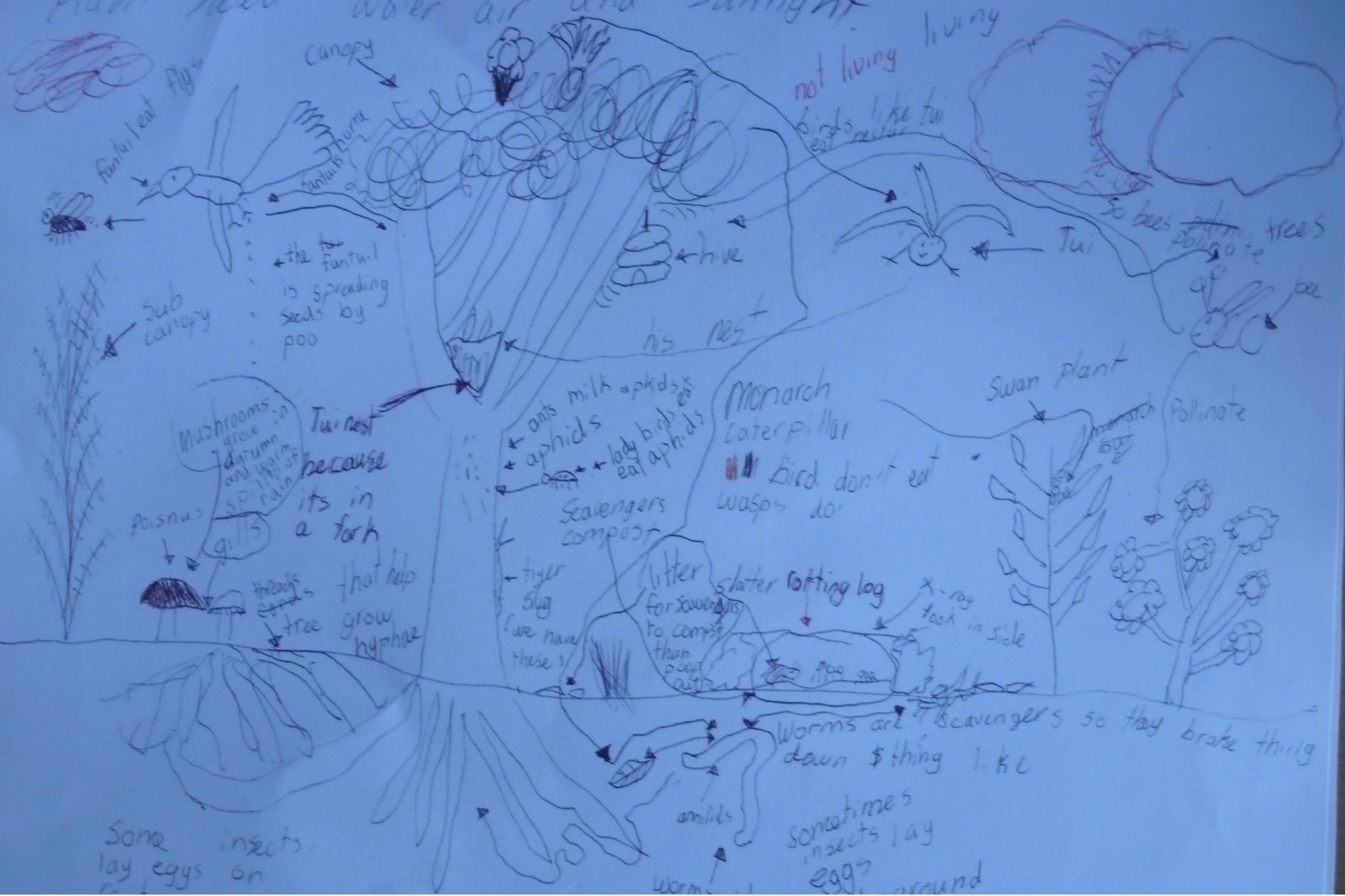
# Action competence and literacy findings

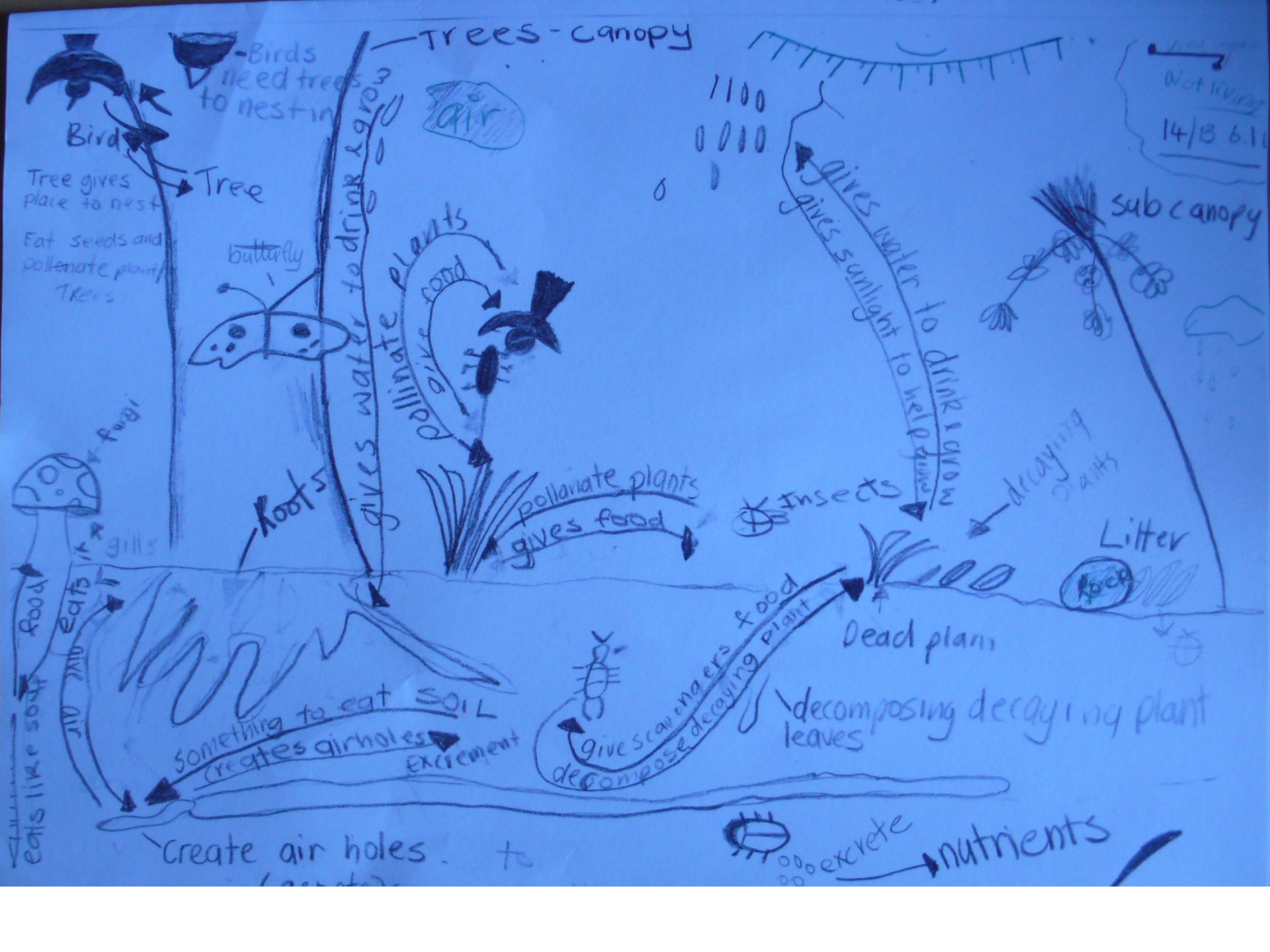
- **Making meaning and applying the key competency** of using language, symbols and texts as a means of students expressing their growing understanding and knowledge of sustainability issues;





Plant need water air and sunlight





# Key messages

- AC is an educational goal
- AC is embedded in the curriculum
- AC is about supporting young people to be competent members of society
  - Informed (holistic knowledge)
  - Committed (participative)
  - Skills and ability to act with respect to the environment (action orientation and doing it)



# A key over-all finding is that literacy is essential for the development of action competence.

An equally important finding that students need to recognize that their learning has a purpose that is fulfilled as part of the process – that is that their growing knowledge, skills and competencies are connected to participating in and taking action for a more sustainable future.

In action competence and as outlined in the intent of the New Zealand Curriculum (NZC) it is not enough just for students to know things, they need to understand how they might use their knowledge and why that is important.

Predominantly, students in this research didn't appear to understand that they were part of an iterative process for learning. Instead, they considered that what they were learning might be used by them after they had left school.

# Planning for taking action

When planning for ***taking action*** in education for sustainability, you will need to consider:

- What will my students learn as a result of this action?
- What prior knowledge and understanding do my students have of the sustainability issue they are seeking to address?
- How can I ensure my students are involved in deciding what to do?

Action	Criteria met?	Suggestions for next steps/change
Students decide to install more rubbish bins to resolve the litter problem in their school.	<p>No</p> <p>This meets the criteria that students be involved in deciding what to do but does not challenge student learning as to the underlying reasons why litter is in the school in the first place.</p>	<p>Students need to be challenged to examine why we have litter, where it comes from and how it is created. What are the alternatives to multiple wrappers and packaging? Can we create more sustainable systems for packaging that reduce our use of resources?</p>

Action	Criteria met?	Suggestions for next steps/change
Teacher accepts an invitation for students to participate in a World Environment Day planting at a local reserve.	No - students are not involved in deciding what action to take. While teachers may have some good purposes for student learning that they have decided on, these would need to be shared carefully and planned with the students to ensure maximum benefit for student learning.	Students investigate the reasons behind the planting programme and decide whether they are able to contribute to this project in a way that will lead to a more sustainable future.

Action	Criteria met?	Suggestions for next steps/change
Students, with teacher support, decide to make compost out of the fallen leaves in the school grounds to use in the gardens and nourish the soil rather than burn the leaves on a bonfire.	Yes - the students work with their teacher to understand the interdependence in natural cycles of growth and decomposition. Their learning is focused on finding out and implementing the most appropriate system for composting the leaves.	Students may need to consider how the compost system will be maintained and utilised in the future.



# Action competence as an educational goal

- Ability to be an active participant in society
- Intentional actions – with respect to environment and health

*....[the] notion of action also means that the action must be addressed to solving the problem or changing the conditions or circumstances that created the problem in the first place*

(Mogensen & Schnack, 2010)

# Mogensen and Schnack 2010

Environmental Education Research

Research Programme for Environmental and Health Education at the Danish School of Education

Refers to an educational approach that:

- is critical of moralistic tendencies in EE and health education;
- emphasises the educational aims
- NOT about reducing education to a technical means to solve certain political problems

- works with democratic and participatory ideas in relation to teaching–learning;
- is problem-oriented, cross-curricular, even holistic, without losing interest in academic knowledge and fundamental concepts;
- regards environmental problems as societal issues that involve conflicting interests;
- works with a positive and broad conception of health, including not only lifestyle, but also living conditions;
- looks for relationships between environmental education and health education.