# **Thematic/interest-driven investigations**

# Home education program for Emily Wattle-Flinders\* ("this student, including their name and profile, is entirely fictional and any resemblance to real persons is purely coincidental)

### **Educational and personal goals**

#### Short term (this year)

- To facilitate Emily's re-engagement with learning by incorporating passions and interests.
- To develop a routine that works for Emily and has scope for guided and self-directed investigations.
- To provide opportunities to develop skills to support self-directed work in the future.
- To undertake investigations for organic gardens, permaculture farming, and the Asia Pacific, as negotiated with Emily.
- For Emily to be regularly involved in community groups, clubs, workshops and activities of interest.

#### Long term (future years)

- For Emily to become a self-directed learner who can facilitate and plan projects and investigations.
- For Emily to pursue passions and interests through research and study, taking an active role in the community and society to enhance future outcomes for both people and the environment.
- For Emily to maintain and develop Indonesian language skills to a level of fluency to sustain living/working in Indonesia.

## Overview of my child (the learner)

#### My child's learning background and individual needs

- Emily's early years of education (equivalent of Prep-Year 2) were completed at home and at an international school when we worked in Indonesia.
- Emily prefers self-directed learning based on interests.
- Emily does not respond well when value cannot be seen in the task at hand. This has been problematic at school, often presenting as stubbornness, an inability to cooperate and disengagement with learning.
- Emily loves the outdoors and thrives in this environment.

#### My child's learning style/s

- Emily is a hands-on, practical and visual learner who enjoys constructing, creating and learning outdoors and in nature whenever possible.
- Emily frequently has self-directed goals, key ideas and explorations in mind, making the choice to engage with research, reading and writing in this way.
- Emily enjoys collaborating with others who have similar interests and passions, attending workshops of choice and learning from experts.
- Emily enjoys sharing learning with others.

### Teaching strategies to support my child's individual needs and learning style/s

#### To support Emily's learning I intend to:

- facilitate and assist the development of skills in a range of learning areas to support engagement and completion of investigations;
- negotiate investigations based on Emily's current area of interest;
- monitor and provide feedback;
- guide Emily and develop my own knowledge as appropriate to her learning styles and the selected investigations; access relevant expert advice, resources and activities/workshops to support Emily's learning.

### Description of home learning environment

Physical environment e.g. private/shared study spaces, light, ventilation, display areas, storage, IT access, indoor/outdoor facilities

We live on acreage where a generous portion of the property comprises our house and a fenced yard. The remainder of our property is made up of forest growth with a path down to the creek, which we back on to. Our block attracts local fauna. Our large, covered back deck is breezy, well lit and has a leafy outlook. It has been set up with a large table for Emily's written work, has space for hands-on activities and the shed for storing Emily's practical resources is also close by. Emily has ICT and audio-visual access, indoor storage and display space. The dining room is available for working when the weather is wet.

Motivational environment e.g. indoor/outdoor activities, hands-on/real-life experiences, daily routines/tasks, variation of routines/tasks, individual/group learning opportunities, interactive learning

Emily's greatest motivation typically comes from her areas of interest. Emily focuses and remains engaged for longer periods in the mornings. Drawing on these areas of interest and key times of concentration, we will create dedicated blocks for Numeracy and Literacy in the mornings. In these specific areas, Emily works best in having one on one guidance and visual cues. During these times, her learning will have greater scaffolding by me as her teacher. Other key learning areas will be less structured and take place in the afternoon. While they are interest-led by Emily, they will be completed as a means of contributing to the investigation we are completing. Learning will be both structured and unstructured. Structured learning will occur through utilising text resources and integration of ICT (apps and computer programs) and other paper-based resources. Unstructured learning will occur taking opportunities to teach while participating in hands-on concrete activities such as cooking, play-based activities such as Meccano, Lego and exploring the outdoors. Each of the unstructured activities will have a purpose in teaching a specific concept for one or many of the key learning areas. Collaborative learning opportunities will also be a part of Emily's program with attendance at workshops, excursions and other group gatherings organised with home educating families. Some of the activities completed during unstructured learning time may inspire future investigations.

## Social opportunities

Peer and other interactions e.g. friends, home education groups, sporting clubs/associations, religious activities, classes, travel/excursions

- Wildlife Warriors and injured wildlife care
- Nature Play Queensland passport program
- Local Nippers and swimming club
- Home education group
- Private Indonesian lessons/conversations with family and friends
- Excursions and workshops as related to investigations
- Visits with grandparents, family, friends and international guests

## **General curriculum information**

Prep (Foundation) – Year 10

The <u>Australian Curriculum</u> provides specific subject and year level information, select F-10 Curriculum drop-down menu on the website or use the hyperlinks included with each of the learning areas below.

Parent Information provides a general guide about the learning that typically occurs for students in Prep (Foundation) – Year 10.

Senior Secondary (Years 11-12)

The <u>Queensland Curriculum and Assessment Authority</u> provides a broad range of subject specific information for a range of student pathways. Use the <u>Years 11 –</u> <u>12: A – Z Subject List</u> to find curriculum information.

## Investigation summary

Develop a brief outline of interest-driven investigations including each exploration topic and how to include learning areas for exploration. Please note, this overview is a summary and does not constitute a complete program.

Investigation Number	English	Maths	Humanities and Social Sciences	Science	Technologies	The Arts	Health & Physical Education	Languages
EXAMPLE INVESTIGATION Investigation Question: How can we effectively grow and maintain a sustainable organic garden, in our backyard? How does this help positively impact the environment?	Information reports Organic farming The canning process of fruit and vegetables	Statistics Gather data on most popular organic vegetable choices that grow well in the area. Graph and represent results. Number Calculate the costs for creating an organic garden budgeting for the vegetables, fruit and herbs. Estimate income and profit.	Inquiry Is Fresh Best? Investigate whether freshly grown organic food or pre-packaged fruit and vegetables are best.	Experiment One Do different diets affect worms and the goodness they give back to the soil? Experiment Two Do plants grow faster with worm castings? Plan and conduct investigations. Observe and Record data on plant growth.	Plan, design and build Raised garden beds. Greenhouse using recycled plastic bottles.	Create Sustainable and recyclable art using junk mail. Create a garden scarecrow.	<b>Create</b> a health and safety poster that promotes safe use of tools; and appropriate clothing for working outdoors in the garden.	Indonesian Focus on vocabulary around farming and agriculture, numerals, greetings and food related words.
Investigation 1		Να	otes about this ex	ample				
on 3 Investigation 2		Ple Inv inv Pre <i>Th</i> co	ease note this is no vestigation 1 has b vestigation may b ogram information ne information/exan uld be used to assi	·				
Investigati								

# Teaching, learning, resources, monitoring and recording

Elaborate in detail on the investigations listed in your program summary. Detail the plans you have for facilitating the development of these.

Investigation theme			Expected duration					
How can we effectively grow and maintain a sustainable organ	ic garden, in our backyard? How does this help positively impact	the environment?	Approximately 5-7 weeks					
Previous investigation and theme leading to current	Resources for present investigation	Monitoring for present investig	ation					
investigation								
Researched what biodiversity and sustainability are and	The Permaculture Home Garden by Linda Woodrow	Information Reports - Organic farming and The canning						
how they are connected to the food we eat. Power point	Landscape suppliers and hardware stores	scape suppliers and hardware stores process (English)						
and oral presentation (HASS)	Organic seed on line stores	nd data collection and						
Surveyed local community members to see what their	SeedOrganic/OrganicSeedIndex.html							
preferences were for food choices. For example, buying	Farming in Rural Areas Bitesize website	<ul> <li>Science experiments – worms, Soil health, Investigating</li> </ul>						
nocessed food. Graphed data and created a poster for	Practical Money Skills website     plant growth (Science)		n la frach haat? (LIASS)					
processed lood. Graphed data and created a poster for	Healthy Kids – NSW government	<ul> <li>PowerPoint and oral presentation, is fresh best? (HASS)</li> <li>Poster display - Health and safety outside in the garden (Health &amp; PE)</li> <li>Plans, designs and photographic evidence of raised garden</li> </ul>						
Created a menu for breakfast lunch and dinner that	Scootle – Sustain Your Art							
demonstrated healthy food choices (Health & PE)	Scootle – Fruit, vegetables and crops							
<ul> <li>Investigated the life cycle and anatomy of earthworms</li> </ul>	Indonesian - Babbel or Duo Lingo	beds and recycled greenhouse (Technologies)						
(Science)	• Excursions: community gardens, market gardens,	Create seed tags (The Arts)	rechnologies)					
	conventional growing farms, backyard to plate cafes, local	Design and create scarecrow (T	be Arts and Technologies)					
	Richano Rotania Cardona Mount Cost tha		ne vito and reenhologies)					
Investigation activities, knowledge and skills	Brisbarie Botanic Gardens Mount Cool-tha							
Investigate research record and analyse and create written and spoken presentations (English and HASS)								
• Use various resources to investigate information about organic farming and the canning process of fruits and vegetables (information report).								
<ul> <li>Investigate which is best - organic or pre-packaged food (PowerPoint and oral presentation).</li> </ul>								
Gather, display and interpret data and estimate, calculate and analyse (Mathematics)								
• Gather data on popular organic vegetable choices to sell in the local community and graph the results. Calculate costs to create organic garden and budget for all associated costs.								
Hypothesise, investigate, use fair tests, observe and record data and draw conclusions (Science)								
• Do plants grow faster with worm castings? Plan and conduct investigations to find answers. Use a range of methods to display the findings and compare results with hypothesis, explain								
possible reasons for the differences in both experiments.								
• Do different diets affect worms and the goodness they give back to the soil? Plan and conduct investigations to find answers. Use a range of methods to display findings and compare								
results with hypothesis, explain possible reasons for the differences in both experiments.								
Plan, design, build and reflect (Technologies)								
• Plan/design raised garden beds to plant an organic garden and a greenhouse to be built with recycled plastic bottles. Use the drafting process to create drafts of the design and calculations								
in the plan for materials and products required. Keep a journal of annotated photographs of work progress and the completed items.								
Design and Greate (The Arts)								
• Frounce recyclable seeu lays made from junk mail. These can be used to replant the garden for the next cycle of gardening. Design/create a scarecrow out of recyclable materials, decorate and paint the scarecrow. Take photographs of finished pieces of work.								
Design/create and paint the scarectow. Take photographs of hillished pieces of work.     Design/create and decorate a poster that promotes the safe use of tools and appropriate clothing for working outdoors.								
Communicate/Understand Target Language (Languages)								
Identify the language conventions of basic words in Indonesian.								
Future investigation activities								
Next/future investigation								
• Record income and calculate profit from the sale of organic p	produce. Calculate income and profit from the organic garden inc	luding the costs from the original bud	get (Mathematics).					
<ul> <li>Reflect on effectiveness of crop growth and selection and gardening methods (Science).</li> </ul>								

- Locate and collect information on Indonesian farming by creating a visual diagram (Venn diagram) to illustrate similarities and differences to farming in Australia (Languages).
- Compare and contrast organic and conventional industrial farming (HASS).