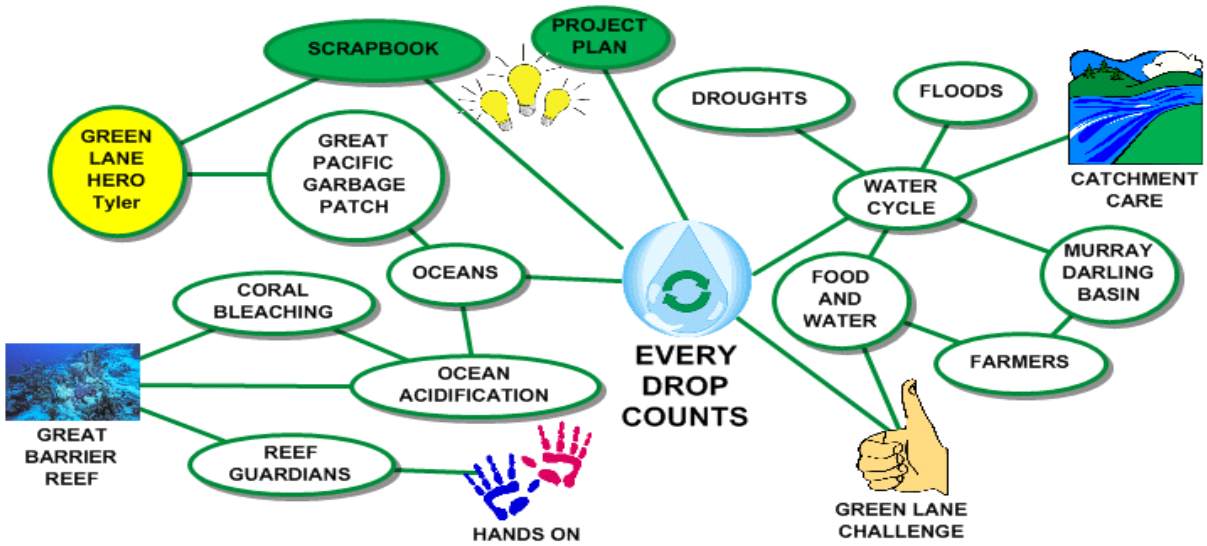
FOCUS CONCEPTS



CURRICULUM INTENT

The Earth Charter

- Principle 4: Make good choices for the future
- Principle 5: Protect the diversity of nature
- Principle 6: Avoid environmental harm
- Principle 7: Walk lightly on our Earth and use only what we need
- Principle 8: Teach others how to keep our Earth clean and healthy
- Principle 10: Manage our resources to benefit everyone

Australian Curriculum - Cross-Curriculum Priorities

- **Sustainability**
  - Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.
  - Sustainable futures result from actions designed to preserve and/or restore the quality and uniqueness of environments.
- **Aboriginal and Torres Strait Islander Histories and Cultures**
  - Aboriginal and Torres Strait Islander Peoples have unique belief systems and are spiritually connected to the land, sea, sky and waterways.
- **Asia and Australia's Engagement with Asia**
  - Interrelationships between humans and the diverse environments in Asia shape the region and have global implications.

Australian Curriculum – General Capabilities

- Literacy
- Numeracy
- ICT Capability
- Critical and Creative Thinking
- Personal and Social Capability
- Ethical Behaviour
- Intercultural Understanding

REPERTOIRES OF PRACTICE

Australian Sustainability Curriculum Framework

	FOUNDATION LEVEL - YEAR 2	YEAR 3 -YEAR 7
WORLD VIEWING	**Beliefs, ethics and actions:** Describing and discussing the reasons for certain rules of behaviour or use of resources at home and school	**Perceptions, feelings and values:** Working in and caring for various environments and various plants and animals
SYSTEMS THINKING	**Tracking change over time:** Describe change as a series of events that connect over time	**Taking a big picture view:** Create a model of a system and use it to demonstrate how change to a part of the system affects the whole system
FUTURES AND DESIGN THINKING	**Appreciating change over time:** Identify continuities, trends and patterns in relation to personal experiences of events and places	**Envisioning futures:** Envision preferred futures that respond to emerging social and environmental concerns

SUGGESTED TEACHING AND LEARNING SEQUENCE

INQUIRY PHASE 1 – ENGAGE – MAKING A CASE FOR CHANGE

Learning Objectives

- Use diagrams and flowcharts to explain the water cycle
- Identify the issues affecting the Murray Darling Basin
- Calculate personal water footprint

INQUIRY QUESTIONS	SUGGESTED LEARNING AND TEACHING SEQUENCE
• What is the water cycle and how does it work? • What is a catchment and why do we need to take care of it? • How true is the statement: 'It never rains but it pours'? • Where can we find data about droughts and floods in our area? • Where is the Murray Darling Basin? • What issues are affecting the Murray Darling Basin? • Who and what depends on the health of the Murray Darling Basin for survival? • What is your water footprint?	1. Find out what students already know about the water cycle. Explore what is meant by a **Catchment** and use maps to identify catchments in the local area. 2. Work in EXPERT GROUPS to find out the issues affecting **Catchments** and communicate your understandings via the class BLOG. 3. Discuss students' experiences of floods and droughts and give reasons why we need to conserve water using examples from recent weather events across Australia 4. Use the **Murray Darling Basin - Facts** website to complete a FACT FINDER RETRIEVAL chart on the location and characteristics of Australia's biggest river system. Make a **wall** to communicate the results of the students' investigations. Work in EXPERT GROUPS to explore the **Murray Darling Basin - Issues** website

	and identify the issues affecting the region. Add this information to the **wall**. 5. Discuss reasons why we need to conserve water and support students to calculate their water footprint. Make a plan to reduce the size of the footprint each month.

INQUIRY PHASE 2 – EXPLORE – DEFINING THE SCOPE FOR ACTION

Learning Objectives

- **Use a map to locate the oceans of the world**
- **Investigate the issues affecting our oceans**
- **Generate ideas for actions to repair the damage to our oceans**

INQUIRY QUESTIONS	SUGGESTED LEARNING AND TEACHING SEQUENCE
• Where are the oceans of the world? • What issues are currently affecting our oceans? • What is ocean acidification and what can we do about it? • How is the Great Barrier Reef affected by coral bleaching? • Where is the Great Pacific Garbage Patch? • How is the Great Pacific Garbage Patch impacting on our marine species? • What can we do to reduce the damage caused by the Great Pacific Garbage Patch? • What is involved with the Reef Guardian program?	1. Use a map to locate the oceans of the world and find out what the students know about the similarities and differences in each area including climate, weather and marine life. 2. Work in EXPERT GROUPS to respond to the following questions: ○ **What is coral bleaching?** ○ **What is the Great Pacific Garbage Patch?** ○ **What is ocean acidification?** 3. Make a **wall** to display the results of the students' research and include any other questions the students would like to discuss. 4. View the image from the **Surfrider Foundation** and compare the time it takes for different rubbish items to break down. Discuss the impact of rubbish on marine species, the health of our oceans and human health. 5. Develop an awareness campaign to educate others about what they can to do reduce the impact of the Great Pacific Garbage Patch. 6. Find out how you can become **Reef Guardians** and what kind of commitment is involved. Prepare a proposal for your school principal so that you can join the program.

INQUIRY PHASE 3 – EXPLAIN – DEVELOPING THE PROPOSAL FOR ACTION

Learning Objectives

- Investigate actions undertaken by individuals and groups to repair the damage to our oceans
- Generate ideas for actions to raise awareness of water conservation in the local community
- Connect with people in the community who can provide feedback and support

INQUIRY QUESTIONS	SUGGESTED LEARNING AND TEACHING SEQUENCE
• How can we be inspired by the story of Green Lane Hero Tyler? • What water-related issues do we need to address in our local area? • What action can we take to repair the damage to our oceans? • How can we make sure that we are thinking globally and acting locally? • Who can support us in our action plan?	1. Share Tyler's Green Lane Hero story and discuss how you might be able to use the ideas in your school community. 2. Upload a message to the Green Lane Diary website congratulating Tyler. 3. Share your ideas for action on your class BLOG and include the results of your research and discussions. Share the information with other schools on the Green Lane Diary website 4. Invite a representative from a local community organisation to inspire your class with possible ideas for action 5. Using the Green Lane Diary project plan and scrapbook, brainstorm, draw and record ideas for actions 6. Weigh up the pros and cons of different courses of action 7. Choose the most effective action 8. Identify the person in the school who has the authority to approve the action and prepare a detailed proposal for presentation

INQUIRY PHASE 4 – ELABORATE – IMPLEMENTING THE PROPOSAL

Learning Objectives

- Develop an action plan
- Prepare equipment and devise roles and responsibilities
- Implement the action plan

INQUIRY QUESTIONS	SUGGESTED LEARNING AND TEACHING SEQUENCE
• What equipment will we need to take action? • What steps do we need to take? • What jobs will we need to do? • Who will be responsible for each of the jobs we need to do? • What is our timeline? • How can we monitor our progress?	1. Using the Green Lane Diary project plan and scrapbook, make a list of the equipment needed to fulfill the action 2. Identify the steps required and negotiate roles, responsibilities and timelines 3. Implement the action 4. Discuss responsibilities for each step of the action plan 5. Negotiate with the students to form collaborative groups who will be responsible each of the roles 6. Discuss the importance of gathering evidence to determine the effectiveness of the action – eg: photos, videos, data, feedback

INQUIRY PHASE 5 – EVALUATE – EVALUATING AND REFLECTING

Learning Objectives

- Collect data on the impact of the action plan
- Reflect on the results of the action plan
- Discuss strategies for improving results

INQUIRY QUESTIONS	SUGGESTED LEARNING AND TEACHING SEQUENCE
• What happened as a result of our actions? • How can we find out about the success of our actions? • Who can we tell about our successes? • What else can we do to make a difference? • Which Earth Charter values did we act upon? • Who can provide us with feedback about the success of our actions? • What evidence do we have to prove our actions were successful? • What have we learned? • How can we improve our results?	1. Discuss the results and impacts of the students actions with leading questions about what they observed, what they learned and how they might improve their results in future 2. Make links with the class version of the Earth Charter 3. Record results, learnings and experiences in the Green Lane Diary 4. Identify people in the school community who can provide feedback on the students' actions 5. Use **stixy** to evaluate the processes the students used to design and implement the action 6. Celebrate students' achievement and success 7. Discuss possible strategies for improving the success of the actions

TEACHING AND LEARNING RESOURCES

BOOKS

- *'One Well – The Story of Water on Earth'* by Rochelle Strauss
- *'Dying to go…to the toilet - The Sanitation Challenge'* by AUSAID Global Education Project
- *'Lifting the lid - A Teaching Resource for the International Year of Sanitation'* by AUSAID Global Education Project
- *'Big Rain Coming'* by Katrina Germein and Bronwyn Bancroft
- *'Sea Secrets'* by Gilliam M Wadds
- *'A Drop of Water'* by Walter Wick

DIGITAL LINKS

- YouTube:
  - *What is Coral Bleaching?* **http://www.youtube.com/watch?v=iW8nCALx5iA**
  - *Ocean Acidification:* **http://www.youtube.com/watch?v=W9cS0rl_NyI**
  - *Great Pacific Garbage Patch:* **http://www.youtube.com/watch?v=xc6LvdsyJ4U&feature=fvwrel**
- Murray Darling Basin Commission – Facts: **http://www.mdba.gov.au/services/education-resources**
- Murray Darling Basin Commission – Issues: **http://www.mdba.gov.au/services/education-resources/environmental-issues**
- Queensland Government Department of Environment and Heritage – Catchment Care: **http://www.ehp.qld.gov.au/water/catchment_care.html#what_is_a_catchment**
- Reef Guardians **http://www.reefed.edu.au/home/guardians**
- Surfrider Foundation: **https://m.ak.fbcdn.net/a8.sphotos.ak/hphotos-ak-ash3/599368_374946225900611_748441718_n.jpg**
- Bubbl: **https://bubbl.us/**
- Wallwisher: **http://wallwisher.com/**
- Global Education – Teacher resources to encourage a global perspective across the curriculum: **http://www.globaleducation.edu.au/**