SUSTAINABILITY

What is Sustainability?

Sustainable:

(Mirriam-Webster Dictionary)

Relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.

(Oxford Dictionary)

Conserving an ecological balance by avoiding depletion of natural resources.

Why Sustainability?

NATIONAL QUALITY STANDARDS

Quality Area 3 – Physical Environment

Standard 3.3

The Service takes an active role in caring for its environment and contributes to a sustainable future.

Element 3.3.1

Exceeding NQS:

Sustainable practices are ***embedded*** in service operations and ***consistently promoted*** in the everyday program

Meeting NQS:

Sustainable practices are ***embedded*** in service operations

Six Key Areas of Sustainability Education

1. Energy Saving
2. Water Conservation
3. Waste Minimisation - re-think, reduce, reuse, recycle
4. Gardening and Composting
5. Sustainable Food Practices
6. Green Play Experiences

Energy Saving

Saving energy helps to reduce greenhouse gas emissions, reduces cost and reduces consumption

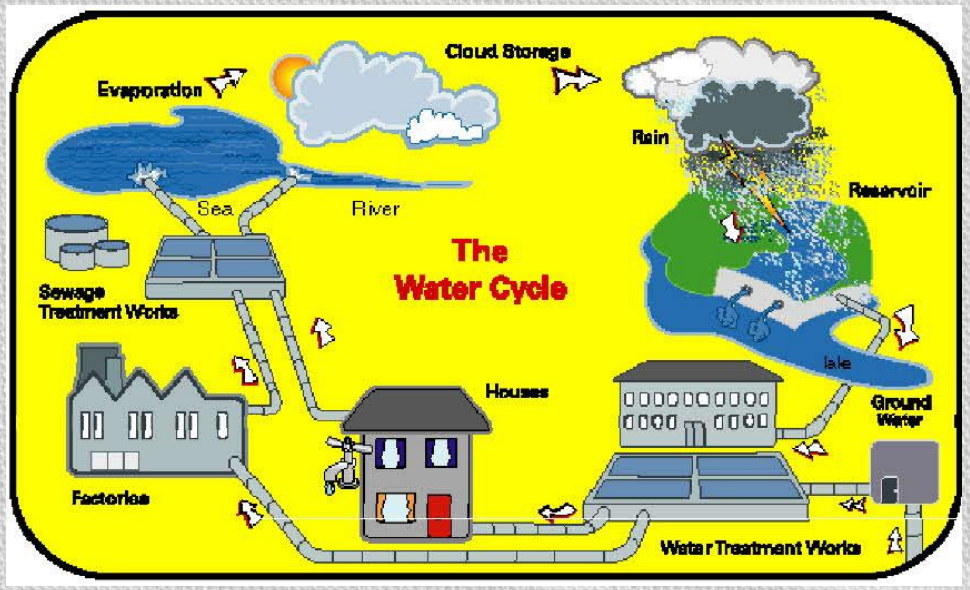
- Turn lights off when going outdoors
- Invite children to help hang up the washing. Talk about the best days for drying the laundry outdoors or where to put the indoor rack for best results. Remember, the sun is not only a disinfectant but has a natural bleaching effect.
- Encourage children to shut doors to keep rooms cooler/warmer.
- Practice reading a thermometer with children. Talk about hot/cold.
- "Turn off and Unplug" appliances policy
- Heat/cool only the areas in your house that you are using
- Consider solar power/insulation/natural lighting (skylights)

Water Conservation

Reducing the usage of water and recycling of waste water for different purposes

- Consider planting drought tolerant plants
- Mulch plants so they retain moisture. Involve the children
- After wading pool use, include the children in using the water on plants
- When washing hands, turn off running water while lathering and scrubbing – do the same when brushing your teeth
- If you're able: sweep, don't hose
- Wash fruit & vegetables in a pan instead of under the tap – then use that water on plants
- Inspect the house for dripping taps – become a "The Water Waste Detective"
- Use Flow restrictors on taps & water-saving showerheads
- Consider a rainwater tank, front load washing machine, dual flush toilet

- Discuss with children the different ways to minimise water consumption
- Brainstorm water saving activities with the children
- Discuss how water gets to our taps
  - Rain
  - Gutters
  - Tanks
  - Pipes
  - Rivers
  - Reservoirs
  - Filters
  - Pumps
  - Water Towers



- Show children the water tower
- Water can be liquid, gas (steam/vapour) or solid (ice) – do some experiments – ice melting/water evaporating
- Discuss and research the water cycle

Waste Minimisation

Re-think, Reduce, Re-Use and Recycle

- Re-think your everyday practices – sort rubbish and scraps after meals
- Use food scraps for worm farms, compost or animal food (ie bread for birds, general scraps for chickens)
- Reduce packaging and landfill by using concentrated cleaning agents
- Recycle paper, cardboard boxes, ice-cream containers, fabric scraps, old tyres
- Re-use gift wrapping paper, ribbons
- Involve the children and their families by asking them to bring along recycled items for craft and other activities
- Encourage litter free lunches
- Encourage low waste lunches – (eg. buying a large container of yoghurt, divide into smaller, reusable containers – cheaper and less packaging)

- Make use of your recycling bin
- Use specific recycling programs:
  - Metal/Computer Parts/Green Waste/Batteries at Bonnick Rd Dump
  - Old mobile phones can be recycled at phone shops
  - Recycle old Christmas cards at the Post Office
- Learn about the different recycling symbols and what can be recycled in your area
- Rinse ALL recyclable containers before putting into recycling bin – don't put them into plastic bags – always remove lids – items that have been contaminated by food/liquid are disposed to landfill
- Collapse boxes/cartons flat – remove all packaging material
- Crush plastic bottles and cans to fit more into your recycling bin
- Place items loosely into recycling bin (makes sorting easier)
- No plastic bags! Items in plastic bags are NOT recycled
- Did you know that contaminated recyclable items affect the entire recyclable truckload and result in all or part of the load being disposed into landfill?


TINS &
CANS
GLASS BOTTLES & JARS
CARTONS
PLASTIC CONTAINERS
CARDBOARD
PAPER
NO PLASTIC
BAGS
NO FOOD SCRAPS
NO NAPPIES
NO CAR
PARTS OR
GAS BOTTLES
NO MIRRORS,
LIGHT GLOBES OR
WINDOW GLASS
NO GARDEN
WASTE
DO NOT PUT YOUR
RECYCLING INTO
PLASTIC BAGS


Recycle your
Christmas cards
here


RECYCLE YOUR
WIRELESS PHONE
HERE
RECYCLE
YOUR WIRELESS PHONE

Gardening & Composting

Using energy more efficiently while still meeting our energy needs

- Worm Farms: Involve the children in saving scraps from meal-times. Use the worm tea in the garden
- Edible Gardens: Grow some sprouts. Use the food/s grown in cooking activities. These can be vegetables, herbs and even some flowers!
- Chickens: Teach the children how to be responsible with animals – feeding, watering etc. Collect eggs. Use them in cooking activities or encourage the children to take them home for their families
- Rotating compost bins: Teach the children what can go in them and where we can use the compost

Sustainable Food Practices

Practices that keep the environment healthy and food production economically and socially viable

- Collect seeds from the plants you have grown. Many are easy to collect and re-grow. Pumpkin seeds, peas, beans, capsicums etc.
- Teach the children about reducing food wastage
- The cycle of sustainable food practices:-
  - Planning
  - Shopping/Growing
  - Storing
  - Cooking
  - Waste Minimisation
  - Growing

Green Play Experiences

Using and being in nature to promote creative and interactive play

- Gardening, mulching, weeding, raking and picking/collecting food
- Watch wildlife – feed birds, watch lizards, listen to nature's sounds
- Draw with sticks in the dirt, make daisy chains
- Collect leaves, sticks, gum nuts etc. for craft activities
- Shadow Play
- Watch the clouds. Lie on the grass and pick out shapes in the clouds. All you need is your imagination!!!!

ENVIRONMENT

What is The Environment?

Environment:

(Mirriam-Webster Dictionary)

The circumstances, objects or conditions by which one is surrounded.

(Oxford Dictionary)

The surroundings or conditions in which a person, animal or plant lives or operates. The natural world, as a whole or in a particular geographical area.

Why The Environment?

NATIONAL QUALITY STANDARDS

Quality Area 3 – Physical Environment

Standard 3.2

The environment is inclusive, promotes competence, independent exploration and learning through play.

Standard 3.3

The Service takes an active role in caring for its environment and contributes to a sustainable future.

Element 3.2.1

- **Exceeding NQS:**

- Outdoor and indoor spaces are designed and effectively organised to engage every child in quality experiences involving the built and natural environments. The spaces provide the flexibility to respond to children's individual needs, development, self-initiated play and exploration.

Meeting NQS:

Outdoor and indoor spaces are designed and organised to engage every child in quality experiences in both built and natural environments.

Element 3.3.2

Exceeding NQS:

Children are ***actively involved*** in being environmentally responsible and ***supported to continue*** this involvement within the program and in the broader community

Meeting NQS:

Children are ***supported to become*** environmentally responsible and show respect for the environment.

BEING ENVIRONMENTALLY RESPONSIBLE

- Where does food come from?
- Gardens
- Natural Products
- Rubbish
- Energy
- Indoor Environment
- Outdoor Environment

A great local website with lots of tips, hints and articles:
http://www.sustainablegympie.com.au/

Where does food come from?

- **Discussions on food in the supermarket**
  - Milk
  - Meat
  - Vegetables & Fruits
  - Eggs
- **Visit someone with a vegetable garden**
  - **Gympie has a “community garden” at Cooinda**
- **Visit someone with chickens**
  - **Gympie poultry club Learn to appreciate the process of growing food**
- **Discuss and demonstrate the food cycle…**

  Seed – Fruit & Vegetables – Seeds – Decomposition
- **Grow sprouts in a jar or seed sprouter. Make an egg carton caterpillar**

Gardens

- **Grow your own vegetable garden**
- **Explain why bees are important for growing food –**

"Bees are responsible for one out of every three bites of food we eat. Most crops grown for their fruits (including vegetables such as squash, cucumber, tomato and eggplant), nuts, seeds, fibre (such as cotton), and hay (alfalfa grown to feed livestock), require pollination by insects. Pollinating insects also play a critical role in maintaining natural plant communities and ensuring production of seeds in most flowering plants"

- **Build a mushroom farm**
- **Establish a compost bin or pile**
- **Plant native plants**
- **Mulch gardens to reduce watering needs and to slow evaporation**

Natural Products

- Use baskets and containers made of natural materials such as cane & wicker for storage
- Use natural products for craft activities – cane, raffia, dried/pressed flowers, egg shells, gourds
- Make your own glue!
- Make your own paper
- Reduce the use of chemicals
- Make cleaning products from:
  - Baking soda and water
  - Lemon juice or vinegar
- Try to use as many NON-TOXIC products as possible – explain why it is better to use non-toxic products

Rubbish

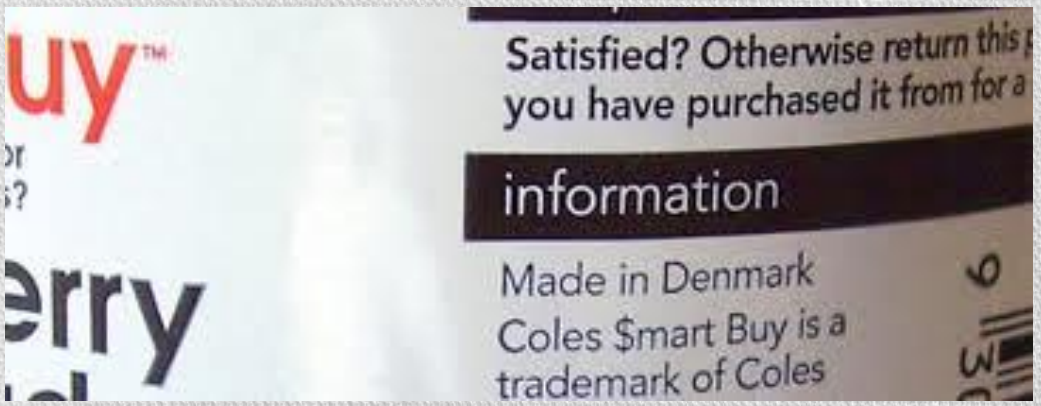
- What happens to rubbish after the garbage truck collects it?
  - General waste?
  - Green waste?
  - Metal?
  - Glass?
- Take a video of the dump to show the children
- Find out what types of plastics can be recycled
- Explain/demonstrate to children the amount of rubbish produced every week
- Discuss rubbish in our waterways and on the beach
  - *A quick Google search "Great Pacific Garbage Patch" to see what is caused by throwing rubbish into the ocean and the waterways*
- Investigate how this affects birds and other wildlife, and how it can affect the food cycle
- Discuss with the children the possible consequences of our actions – but it's not just our rubbish, there are over 23,000,000 people in Australia and over 7 billion people worldwide


FOOD SCRAPS
PLASTIC BAGS
NAPPIES
FOOD WRAPPERS
LIGHT GLOBES
BROKEN CROCKERY
& GLASS (WRAPPED)
CLOTHES & RAGS


1
PETE
2
HDPE
3
V
4
LDPE
5
PP
6
PS
7
OTHER

Energy

- Discuss with children how food gets from farms to the supermarkets and shops
- Investigate what forms of energy are used in growing crops and farming animals
- Look at food production techniques and ways that companies are trying to increase energy efficiency
- Discuss "food miles" – the distance food is transported from the time of it's production until it reaches the consumer
  - Use the "food miles" calculator
  - Food that has travelled long distances is neither fresh or sustainable
- Discuss ways of reducing energy
  - Growing your own fruit/vegetables
  - Eating seasonal fruit/vegetables
  - Preserving seasonal fruit/vegetables
  - Buying local food products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you have purchased it from for a
information
Made in Denmark
Coles $mart Buy is a
trademark of Coles


BUY
local
THE
FRESHEST!

Indoor Environment

- Collect recyclable materials for craft activities
- Have displays of natural objects such as: Shells, gumnuts, bark, leaves, seedpods
- Use large leaves as wrapping paper – use twine, hemp or raffia instead of sticky tape
- Threading and cutting experiences
- Making pretend play props or toys
- Search together for ways to conserve energy and water throughout the play space
- Create signs to remind people to turn off lights and taps
- Read books relating to sustainability and the environment


Tree
Contest
BARBARA REID
Picture a Tree


The Capacity of Children
to Connect with Nature


Nature

Outdoor Environment

- Encourage children to get outside!
- Encourage them to climb – on trees and rocks
- Talk about what is safe – teach children to be aware of and look for risks
- Remember RISK MINIMALISATION PLANS!
- Play in mud and puddles after rain – dress appropriately
- Provide areas for imaginative play and areas to hideaway
  - A few large plant pots can be used if renting
- Allow for exploration and discovery
- Grow plants that encourage birds and butterflies
- Sweeping/raking up leaves – put into garden or compost bin
- Collect natural objects such as leaves and twigs to make collages
- Built a simple herb garden – can be done in pots to save space
- Construct a maze out of raked leaves

LINKS

- www.olliesworld.com
- www.gardening4kids.com.au
- www.sustainablegympie.com.au
- www.recyclingweek.planetark.org
- http://deta.qld.gov.au/earlychildhood/pdfs/tip-sheets/everyday-natural-materials.pdf

GOOGLE

- Great Pacific Garbage Patch