NiE

Did you know?

AUSTRALIA is one of the world's most urbanised countries, with 89% of our population living in urban areas.

THE FUTURE OF OUR EARTH

PART 5

— To live a sustainable life is critical for the planet.
No-one can do everything, everyone can do something.

WITH most people living in cities and larger towns, it is essential that scientific research teams work closely with decision-makers to respond to the challenges facing urban environments from unsustainable practices.

We are currently using natural resources at a rate that is causing ongoing damage to the environment.

In an attempt to create the least amount of loss for future generations, planning and design solutions need to be identified and put into practice.

Sustainable living means practising a lifestyle that uses as few of Earth's natural resources as possible.

What can we do?

Everything we do uses natural resources and produces waste.

The measure of this impact on the environment is called our ecological footprint.

There are a number of ways each of us can adopt to achieve a more sustainable lifestyle.

★ Recycle as much as possible

★ Reduce household energy use. Install rooftop solar panels or solar water heating

★ Rely less on cars by using public transport or walk or ride a bike

★ Use materials in buildings that are more environmentally sustainable and adaptive

★ Give up bottled water

★ Harvest rainwater and store in tanks

★ Filter, store and reuse "grey water" from showers and sinks for toilet flushing and watering the garden

★ Use renewable energy sources

★ Reduce waste.

Limit the use of plastic and other disposable goods

★ Grow fruit and vegetables in the backyard

SCIENCE WEEK

Your school can have a big impact on sustainability by saving water and energy, and reducing waste.

Science week with its focus on Future Earth is a good time to start engaging all members of your school to come up with a plan for change.

Take action by: improving biodiversity in the school habitat; reducing energy by developing a shutdown routine and policy for classrooms; reduce water wastage by putting containers under the bubblers to catch the overflow, then use the water for the garden; reduce waste by setting up a three-bin system – compost, recycling and landfill and have rubbish-free lunch days encouraging everyone to bring lunches without packaging.

TRY THIS

Energy to burn

MOST of the technologies we use in our daily lives require energy to operate.

Identify what uses energy in your classroom and brainstorm strategies to reduce the consumption of energy.

Could your classroom function without electricity?

On a piece of graph paper draw the walls of your classroom, marking where doors and windows are located.

On each wall identify where electrical outlets are located and mark these on your drawing with a coloured pencil.

Select a second colour to mark anywhere there is a power cord plugged into the wall.

Select a third coloured pencil and identify any objects that need energy but are not plugged into a wall. E.g. on the ceiling (including lights, fans and overhead projectors).

Adding up costs

CALCULATE the cost it takes to light up your classroom using this example as a guide.

■ Each light bulb uses 75 watts an hour

■ If the light runs for 8 hours a day, 300 days a year, it will run for a total of 8 hours x 300days = 2400 hours

■ The light will use 180,000 watt hours of electricity in the year (2400 hours x 75 watts = 180,000 watt hours)

■ To convert watt hours to kilowatt hours a year divide by 1000 (180,000 ÷ 1000= 180 kWh)

■ If you are charged 49 cents per kilowatt hours, the cost of running one light bulb for the year would be 49c x 180 kWh = $88.20

■ Count the number of light bulbs in your classroom. Multiply the number by the yearly cost.

NEXT WEEK: Looking at books