Future Guardian

The aim of this activity is to design, and hopefully implement, a change in your school or organisation that will benefit reefs. You will select a specific service, facility or activity (or develop a new one) in the school community that you believe could be made more sustainable. By doing this you can gain an appreciation of how change takes place and is influenced by people and the system it occurs in.

Time

Three hours

Tools

- Blank Paper
- Coloured pens / pencils
- Internet access

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Background

Schools can do a lot to ensure that your future and that of the reef is a good one, through what you learn and also how you behave. A good idea can come from anyone in the community, including you. Sustainable projects for schools should include staff, students and parents in decision-making, whole school participation in activities, partnerships with other groups in the area, inclusion of sustainable ideas in different subjects (maths, history, english, etc.) along with school resources and grounds management that reduces the school's ecological footprint. They should also be measured and require monitoring to see if the project is successful in changing things for the better and celebration of school's achievements, so a party or festival or two will be necessary.

Schools and students are often key multipliers of change, with messages spreading through whole communities. Successful projects that help the reef could include activities that increase environmental awareness and stewardship in all school units, learning about local surroundings and their relationship with reefs (and other ecosystems) as well as different community members and groups, setting examples and working with other schools in catchment care and monitoring of water, waste, energy and biodiversity. Some examples of on-ground projects may include cleaning up local hotspots, revegetation, permaculture gardens, initiating a plastic-free community program or work with Landcare / Coastcare groups and natural resource management bodies to implement long-term programs. Community members could be invited to participate via newsletters, brochures, fetes and fun days, presentations and documentaries or direct visits with farm, home or business owners or government representatives in your area.

Classroom activity

1. In this activity you will design a project plan including:
   a. a specific project goal (e.g. reduce the amount of light spilling from the school onto a beach where turtles are nesting, or increase the number of people riding their bikes to school to reduce carbon emissions)
   b. the steps you would take (in a logical order) of creating change
2. In small groups formulate a single goal that is SMART:
   - Specific: Clear to anyone that has a basic knowledge of the project
   - Measurable: Know if the goal is obtainable and when it will occur
   - Agreed Upon: Agreement with all the stakeholders what the goals should be
   - Realistic: Within the availability of resources, knowledge and time
   - Time Based: Enough time to achieve the goal, but not too much to lose motivation
3. Put your project goal in the middle of a blank sheet of paper and write down all the ways you can think of to make this happen (think really outside the box). This is where you can get creative, use colours and pictures to show your ideas.
4. Separate your ideas into the categories outlined in the Factors of Change table and next to each one write down who is responsible for making it happen. (Draw your own table similar to the one below).
5. Now complete your project plan, including a time line and list of resources you will need to make it happen.

Factors of change

| **Infrastructure** (things that could be built or developed such as buildings, tools, software, manuals) • Solar panels • Website with student stories of how they are reducing energy at home • Signs on light switches saying 'turn me off'	**Regulations** (things that can be enforced such as laws, rules, codes of conduct) • New rule in student handbook about computers being turned off • Fines for leaving lights on
Incentives (things that encourage people to be involved such as prizes, gifts, rewarding experiences) • A prize for the best photo in a photo competition • The chance to spend a day cleaning a local beach, not in the classroom	**Education** (things that people should know about to raise their awareness on the issue sent via e-mail, brochure, website, word of mouth, sky writing etc.) • How do I buy a solar panel? • How is overconsumption of energy impacting the reef

ACTION	WHO	DUE DATE	RESOURCES
Infrastructure			
Regulations			
Incentives			
Education			

Field activity

1. In this activity you will research and audit one aspect of your school, work or home environment. You can choose from the following list or come up with one of your own:
   - Transport
   - Biodiversity
   - Electricity
   - Food
   - Waste
   - Water
   - Curriculum
   - Administration

2. Draw or copy a map of your chosen area, as if you are looking from above (e.g. a room, building, grounds, parking lot or whole complex).
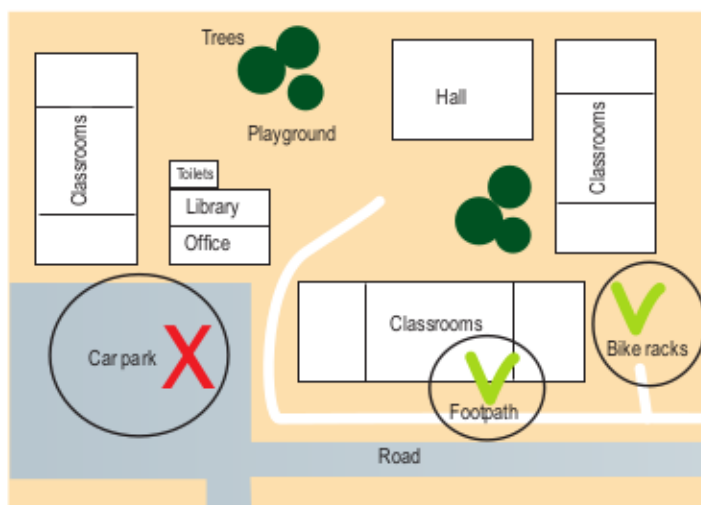
3. On the map, mark down significant objects, doorways, roads etc.
4. Draw circles around areas significant to the aspect you are auditing (e.g. Transport – circle bus stops, car parks, roads, walkways, bike racks etc.).
5. Draw ticks to indicate which of these areas are more sustainable (e.g. bike racks get a large tick as bikes produce no pollution, bus stops a small tick as they reduce emissions)
6. Draw crosses to indicate which of these are less sustainable (e.g. car parks and roads as they produce more emissions).
7. The sustainability of each aspect depends on how it is being used or managed by people. How many people are choosing an activity with less environmental impact or emissions. Decide how you will measure the sustainability of the aspect you are auditing (e.g. number of bikes at school in a day, ask for a show of hands who has driven in today versus taking the bus). Auditing tools are available online to provide ideas or existing worksheets.
8. Take photos as well as specific measurements. You can do a single measurement or repeated measurements over a few days or longer time frame.
9. Interview members of the school community for their opinions on how sustainable your school / workplace is with respect to the aspect you are auditing.
10. Share your findings in your school newsletter.

Questions

1. Write one change that has occurred, involving more than one person, that you have helped make happen. (e.g. your family got a new dog or car, your sports team has decided to wear more sun protection, your band has decided to take on a new member).

2. What sustainable activities are taking place in your school community that are helping the reefs?

3. How would you document and report your project? Be creative.

4. How would you involve the whole school community?

5. List three methods you would use to communicate the message.

6. How would you know your project has been successful?

7. Who do you think would be interested in giving your project money or assistance (think about local business, government agencies)?

8. What change would this cause outside of the school grounds?

9. Who is responsible for making change occur?

10. List five things you can do to reduce your environmental impacts:

    a. at home

    b. at school

    c. at the shops

Research projects

1. Investigate what sustainable projects other schools are doing nearby.

2. Outline the requirements and benefits of becoming a reef guardian school.

3. What are the social costs of climate change?

4. Comment on if it is fair that developed countries impose emission targets on developing nations.

References

Reid et al. (2009) Coral Reefs and Climate Change: The guide for education and awareness. CoralWatch, The University of Queensland, Brisbane. (See Daily Life page 122 and Bridging the Gap page 214)

AUSMEPA; www.ausmepa.org.au

Australian sustainable schools iniative; www.environment.gov.au/education/aussi

Coral Reef Alliance; www.coral.org

Sustainable schools UK; www.teachernet.gov.uk/sustainableschools/

Reef guardian program; www.reefed.edu.au

The WWF Climate Change Team; www.worldwildlife.org

Scientists in Schools; www.scientistsinschools.edu.au

Australian Marine Conservation Society; www.amcs.org.au

Act Now
for our future