



# UNITS

*OLLIE SAVES THE PLANET*

## **Introduction**

The units created to support the Ollie Saves the Planet Program supplement learning from the CD ROM and provide a curriculum structure for teachers to plan classes based on the Program content.

The units are integrated with the activities found on the Ollie Saves the Planet CD ROM and Website and include the following:

- Unit 1 Sustainability
- Unit 2 Waste (1)
- Unit 3 Waste (2)
- Unit 4 Water
- Unit 5 Energy
- Unit 6 Air
- Unit 7 Biodiversity

## **Process of Learning**

The units are designed on the enquiry learning process and incorporate a range of forms - including analysis, problem solving, discovery and creative activities - both in the classroom and in the community. Throughout the units, students are initially presented with relevant background data to enable them to explore a local issue. The investigation of a local issue encourages students to process the data they are working with in order to reach their own conclusions.

Problem solving provides students with an opportunity to practice the skills needed to find solutions to the local issues that concern them. This helps to develop the important citizenship objectives of learning for a sustainable future and integrates skills - for both students and teachers - of using experiential and enquiry-based strategies.

“The development of thinking and problem solving skills is an important objective of education for a sustainable future, especially given the urgency of problems facing the world today. These skills can be taught and enhanced through enquiry learning”. (UNESCO, 2002.)

The units will fit into a number of teaching styles, enabling teachers with access to only two or three computers to have all the students working on the unit simultaneously. (See below for further details on classroom set-ups). The units lend themselves to student directed learning and the role of the teacher in the units is to facilitate the learning process.



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## How To Use The Units

Each unit is structured in the following way:

### Section A: Background Information

This section will provide background information for the unit. The information will allow teachers to plan and organize learning opportunities for their class and provide suggested ways to present the information in the unit. The Background Information is comprised of:

- Part 1: Goals & Objectives
- Part 2: Links to Curriculum
- Part 3: Preparation Checklist
- Part 4: Assessment
- Part 5: Locating information on the Ollie Saves the Planet CD ROM
- Part 6: Resources and Links

### Section B: Unit

Each unit is designed to promote enquiry-based learning and encourage students to change behavior to reduce their impact in that particular area. The units are designed so that:

1. Teachers lead *Part 1: Introduction* and *Part 2: Scene Setters* to provide students with the skills and knowledge to explore a local issue.
2. Having completed the Introduction teachers are encouraged to facilitate the learner centered processes provided in *Part 3: Identifying a Local Issue* through to *Part 8: Reflection*.

Each unit is comprised of:

- Part 1: Introduction
- Part 2: Scene Setters
- Part 3: Identifying a Local Issue
- Part 4: Investigate
- Part 5: Vision
- Part 6: What Can We Do?
- Part 7: Lets Do It
- Part 8: Reflection
- Part 9: Additional Activities
- Part 10: Appendix: Blooms Taxonomy/Multiple Intelligence Activity Grid

## Alternative Classroom Set-ups

You are provided with a range of alternative ways to use this CD ROM, depending on how your school's computer resources are made available to students. If students can only access a small number of computers in another room away from the classroom - e.g. in a library - use a similar set-up to that suggested for the classroom in Alternative 3.

### Alternative 1 – Most work completed within a computer room

One way to use Ollie Saves the Planet is to have the students complete only the activities on the CD ROM. The CD contains activities and projects for students to complete in each section. There are many info-screens to assist in research and



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some suggested websites to refer to. Teachers should consider completing the prior learning activities in *Part 1: Introduction* and *Part 2: Scene Setters* with the students before beginning a topic on the CD. Student's learning experiences can be brought together at the end by doing the concluding activities in *Part 8: Reflection*.

## **Alternative 2 – Alternate between a computer room and classroom**

Each unit provides many additional classroom activities that support the activities on the CD ROM. Book your students into the computer room to complete the CD activities. Use the additional activities in one of the following ways:

1. Select activities and have all students work together through these activities.
2. Set up activity stations with different activities around the classroom and have students progressively work through each activity.
3. Allow students to select a number of activities offered in each unit and assist them to set up and complete the activities.

## **Alternative 3 – Complete work in classroom with several permanent computers**

Set up activity stations with different activities around the classroom and have students progressively work through each activity. The available computers become one of the activity stations. If more computer time is required to complete the projects, consider sending students to the library computers or completing the projects without using a computer. For some units you may like students to choose which activities they do.

## **Links to Curriculum**

These units have been developed for teachers at grades K-8 in the United States. Teachers may obviously need to modify or omit certain activities, depending on the age and ability of students, and the complexity required. Although they are based on the American school curriculum, the units are still suitable for educators in community groups or parents to use to facilitate learning in the area of the environment.

“Teaching about sustainability emphasizes critical and creative thinking, problem solving, decision making, analysis, co-operative learning, leadership, and communication skills. As a result, it is a very good way of achieving educational objectives without adding to the problem of curriculum overload”. (UNESCO, 2002.)

The units have been designed so they can be *integrated* into the existing curriculum rather than creating a new subject area. The units should be viewed and used as *interdisciplinary* in nature and therefore meet the needs of the following subject areas:

- Science
- Language Arts
- Math
- Geography
- Social Science
- Information Technology
- Art



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- Personal Development: group work and critical thinking.

Each unit will have a large language component and will set the scene for using the Ollie Saves the Planet CD ROM, working on the units, exploring the internet and designing web pages.

A range of additional activities will be included at the end of each unit. This section is a useful resource for teachers keen to explore the particular issue further or provide additional learning opportunities for the students.

## **Preparation Checklist**

Use this checklist as a guide to ensure that the students' involvement in actions to help the environment meet local regulations and all health and safety guidelines.

- Does the Principal need to be informed prior to the activity? What information may they require?
- Do local authorities, landowners, neighbors, etc need to be informed or to be part of the process?
- Is permission from parents required?
- Have all health and safety issues been addressed?
- Are the relevant health and safety issues fully understood by all students?
- Do students understand and comply with the school's code of conduct?
- Do you need further advice in setting up the projects?
- Do you need to discuss any issues with a second educator?

## **Assessment**

Each unit contains examples of where teachers can assess the students' understanding and interpretation of the material being explored. A Blooms Taxonomy and Multiple Intelligence Activity Grid has been provided for each unit as a guide to the types of learning that aim to take place during each activity. This could be used as a guide to assessing the learning achieved by students throughout the unit.

"...assessment (is) an integral part of students' day-to-day schooling rather than a series of end-of-course tests. This goal is especially important in education for a sustainable future because of the wide range of objectives concerned with knowledge, skills, values/attitudes, and action". (UNESCO, 2002.)

Each unit provides suggested assessment pieces that take place throughout the learning process rather than at the end of the unit in the form a written test. Use these as an ongoing guide to gauge the students' level of understanding and knowledge of the unit's content.



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Reference:

UNESCO. 2002, Teaching and Learning for a Sustainable Future [online], Available: <http://www.unesco.org/education/tlsf/> [2003, 1 August].