

SEP TEACHERS' MANUAL

JUNIOR SCHOOLS GRADES 1-9

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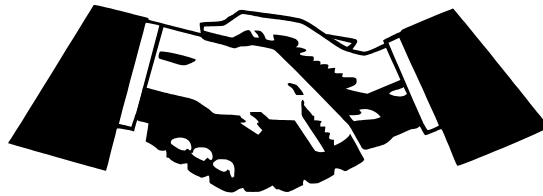
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HOW TO USE THIS MANUAL:

This manual has been divided into sections so that activities can be easily referred to and distributed amongst teachers working on different aspects of the Programme.

Please note the Action Plan (Pages 14-15) and the Keys to Success (Page 16) which will help you to structure your implementation of the Programme. The manual has been revised to provide linkages to the Primary and ROSE curricula. Teachers are therefore encouraged to infuse environmental activities into their regular lessons using these linkages. This will make it easier and less time consuming to implement the programme. Curriculum infusion ideas are found following the activities to which they relate. For some activities there are no direct opportunities for infusion. These can be done as stand alone or environment club activities.

The last section of the manual provides background information on various environmental topics. Background information is also provided in the form of booklets and pamphlets. These can be used to enrich your activities. Links to the background information topics are provided on the activity pages.



SCHOOLS ENVIRONMENT PROGRAMME

A. OVERVIEW

MISSION STATEMENT

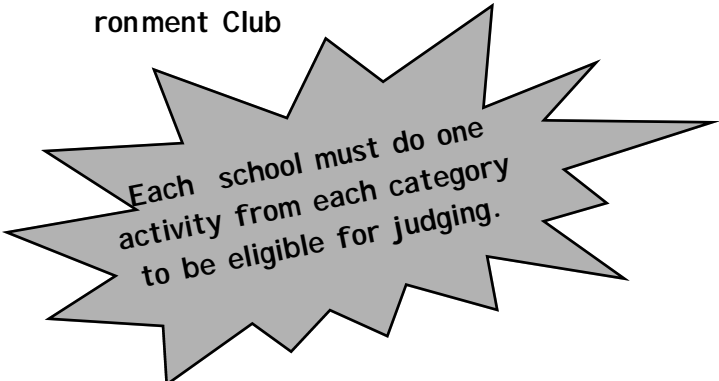
The Schools Environment Programme is a joint project of the Jamaica Environment Trust (JET) and Jamaica 4-H Clubs to promote environmental awareness, ethics and action in students and to encourage the development of environmentally friendly schools and communities in Jamaica through environmental activities.

OBJECTIVES

The Schools Environment Programme seeks to involve schools in activities which improve the school environment, increase student environmental knowledge and enables schools to serve as examples of sound environmental management within the local community. The programme seeks to help children understand environmental concepts and facts, acquire skills, form helpful attitudes and behave positively towards the natural environment. The Programme also aims to train teachers in the delivery of environmental education in and out of the classroom and to increase their knowledge of environmental issues.

The programme is divided into four main categories:

- **Managing Your Garbage**
- **Greening Your School**
- **Establishing or Strengthening an Environment Club**



Each school must do one activity from each category to be eligible for judging.

• Environmental Research

These categories include the following kinds of activities

- **Management of waste through garbage audits, garbage reduction and recycling programmes, litter control and composting;**
- **Greening (beautifying) the school grounds using organic gardening methods; planting trees**
- **Establishing or strengthening of an environment club; advocacy**
- **Research on topics such as Jamaican wildlife, deforestation, energy, water, conservation, and pollution. This may involve community outreach, working with parish environmental groups and sharing lessons learned with the local community;**

INCENTIVE TO JOIN

As an incentive for teachers and students, the programme is run as a competition. There will be opportunities to be recognized regionally as well as nationally. Schools will be expected to achieve certain goals throughout the year in order to be eligible for judging, which will be done in April/May each year. Even though there are prizes to be won, the main reward for being involved is increased environmental awareness and action. The improved school surroundings and the development of knowledge and skills in students will enable them to make wise decisions about their natural environment.

SCOPE OF PROGRAMME

All Preparatory, Primary, All-Age, High and Junior High schools island-wide are eligible to enter.

SUPERVISION

A local Non-Governmental Organization (NGO) or a member of the Programme staff will visit each school several times between September and June (see Action Plan pages 12-13) to assist with implementation.

WORKSHOPS FOR TEACHERS

Teacher workshops are held each year to explore various environmental topics as well as to train teachers in the delivery of environmental education in general and the programme specifically

PLANNING OF PROJECTS

Schools should use the schools' action plan form to plan their projects, with the assistance of Programme staff. Call your NGO or Programme supervisor if you need assistance in completing your school's action plan. The school's action plan for the entire year must be completed and presented to the supervisor by January. All projects must be approved by Programme staff. Certain activities (e.g. compost heap) must be started by the date specified. Blank forms are provided for schools at the beginning of each school year.

IMPLEMENTATION OF PROJECTS

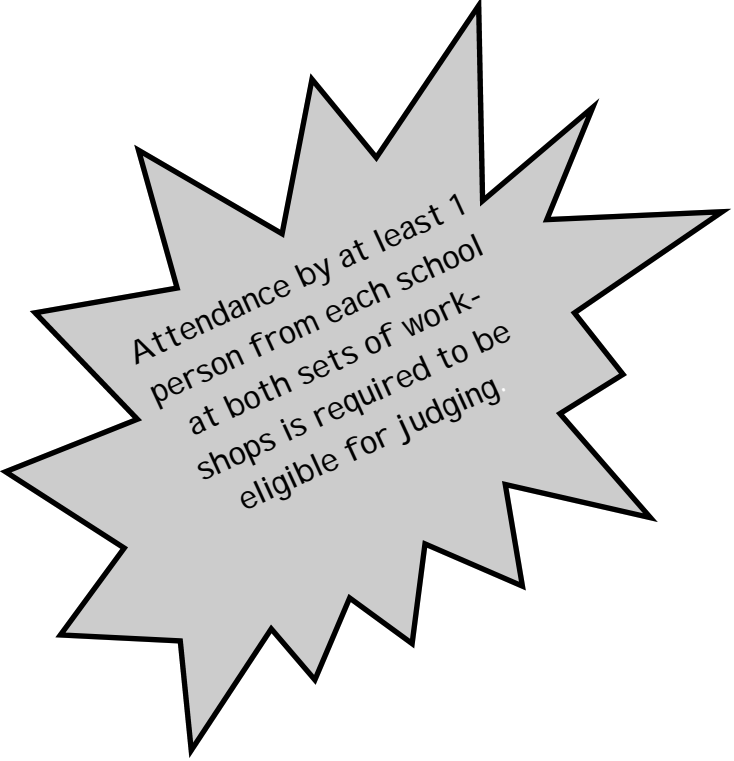
Most classrooms and school-wide activities run from October to March. Staff from JET, Ja 4-H Clubs, or a local NGO will visit your school several times during the year to offer support and answer questions. The Action Plan gives dates for activities to be implemented. Sustainability is a very important part of the Schools Environment Programme so it is important to show evidence that projects will continue during holidays and after judging.

REGIONAL OR ZONE ASSESSMENT

Supervisors will assess your progress as the months go by. If your school is having problems implementing the programme, the supervisors may decide that you need more time and the school will not be recommended for judging.

If you have managed to implement the Programme successfully, regional judges will visit your school in April/May to assess the activities carried out in the four areas. The judges will use the information provided on the first school visit form and assessment reports from supervisors to assess the progress your school has made.

Schools will then be selected for national judging based on a point system. There will also be an opportunity to win category prizes for programme activities. Category prizes are awarded entirely at the discretion of the judges.



Attendance by at least 1 person from each school at both sets of workshops is required to be eligible for judging

PROGRAMME LEVELS

Schools are divided into senior and junior levels. Junior schools are Primary, Preparatory All-Age and Junior High schools. Senior schools are High and Technical High schools.

Schools may be involved in SEP at one of three levels:

1. Enrolled Schools
2. Affiliated Schools
3. Advanced Schools

1. As an Enrolled School you will:

- Be given two (2) copies of the teachers' manual to guide the school in implementing the programme
- Receive at least four (4) supervisory visits each year
- Attend all teacher workshops
- Receive newsletters
- Be assessed to see what the school has achieved
- Be eligible for prizes based on successful implementation of the programme.

Please Note:

Each enrolled school must develop a feasible action plan to be presented to the supervisor on the January visit. At least two (2) activities required by the programme must be started in the Christmas term. If this is not achieved, the school will no longer receive regular supervisory visits and will be moved from the enrolled group to the affiliated group.

2. As an Affiliated School you will:

- Be given one copy of the teacher's manual.
- Receive two supervisory visits (one at the beginning and one at the end of the school year)
- Attend at least one (1) teacher training workshop each year
- Receive newsletters
- Not be eligible for prizes.

3. As an Advanced school you will:

- Have participated in the programme as an enrolled school for at least two (2) years
- Have been recommended by programme staff and applied for advanced status
- Be awarded a sign and citation for your school
- Be required to have an environmental notice board informing the school of SEP activities and other environmental issues
- Continue all activities of SEP
- Receive updates of the teachers' manual
- Receive newsletters
- Attend all advanced teacher and principal workshops
- Receive at least one supervisory visit each year
- Not be eligible for prizes
- Become a demonstration school, i.e. be able to accommodate visits from other schools.
- Develop and implement an action plan for making your school a sustainable institution

JUDGING AND PRIZES

Teachers will be responsible for organizing the presentation of your school's work for the judges, helping to set up exhibits, scheduling drama presentations and selecting students to act as guides and answer questions.

It is very important that students are able to say what was done and why. The work presented must clearly be the work of students. **One hour is allotted for judging each school**, so activities planned must not take longer than about 45 minutes.

The assessment for each zone or region will take place in April/May. Supervisors will assess each school's performance and select regional winners to go on to national judging.

National judging will take place in May/June. Judges chosen by JET will visit the regional winners in order to select the national winners, as well as winners for category prizes and the overall prize for the most environmentally aware school in Jamaica.

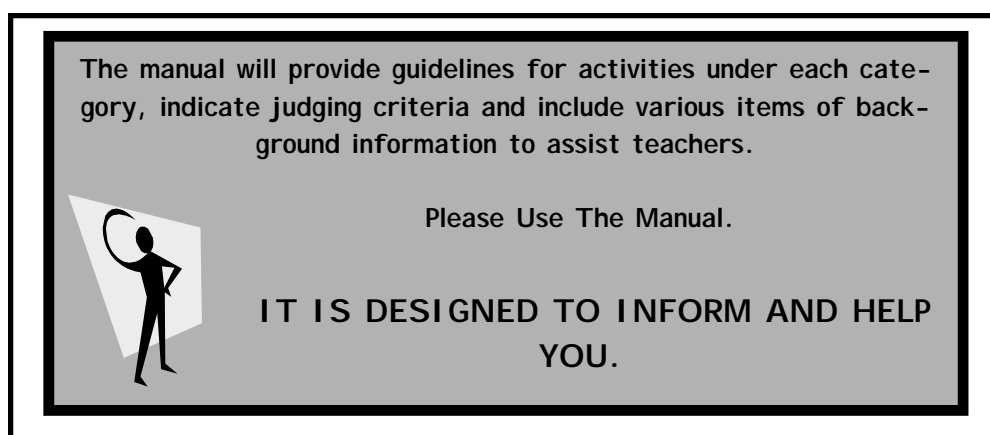
Certificates will be awarded to the zone/region winners for both junior and senior schools. At the national level, first, second and third place winners will be chosen and prizes awarded. Category prizes MAY be awarded at the discretion of the judges for projects such as: best organic garden, best garbage management, best community outreach or school showing most improvement.

NATIONAL AWARDS CEREMONY

A few students and teachers from each of the winning schools in each zone/region will be asked to attend the National Awards Ceremony in June each year, where the national winners will be announced and the prizes will be presented. Students from selected schools will be asked to present skits, songs or poems which were created as part of their environmental projects. An exhibition of various elements of the programme will also be on display.

SUPPORT TO SCHOOLS

Two copies of the manual will be given to each Enrolled school: one copy to be kept in the Principal's office for reference and one copy for participating teachers to read and use.



B. PROGRAMME SUMMARY

Category 1: Managing Your Garbage

Category: 2 Greening Your School

Category 3: Establishing/Strengthening an
Environment Club


Category 4: Environmental Research



CATEGORY 1: MANAGING YOUR GARBAGE

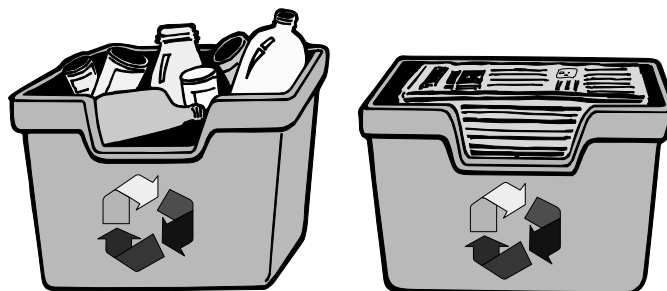
Each school will be assessed on the cleanliness and neatness of the school environment. Points will be awarded for adequacy and use of garbage containers, absence of litter, garbage reduction, proper handling and disposal of garbage, composting, recycling and/or reuse programmes and neatness of classrooms.

Schools must choose at least one activity from the list below. Each activity is explained more fully under the **Implementation Section** of this Manual.



ACTIVITY IDEAS

- Compost heap
- Vermicomposting
- Garbage audit
- Classroom sample garbage study
- Litter warden programme
- Garbage reduction campaign
- Reuse, Recycle projects
- Storing, handling and disposing of garbage properly
- “Cradle to grave” study on selected item of garbage
- Litterless lunch campaign
- Field trip to garbage dump
- Any other related activity approved by Programme Staff or your supervising NGO



CATEGORY 2: GREENING YOUR SCHOOL

Each school will be expected to improve the natural beauty of their school yard with trees, gardens or other plantings. Students should know the principles of organic gardening, composting, why trees are important, the scientific names of trees on the school grounds and how plants grow. Keeping records is a particularly important aspect in this category, as plants sometimes die or vegetables are reaped before judging.

Schools must choose at least one activity from the list below. Each activity is explained more fully under the **Implementation Section** of this Manual

ACTIVITY IDEAS



- Tree nursery
- Organic garden with compost heap or vermicomposting.
- Design and organize a nature walk
- Plant flowers and shrubs to beautify areas of the school
- Investigate the importance and processes of maintaining fertile soil and the hazards of using synthetic fertilizers and pesticides in all types of gardening.
- Learn about trees on school grounds and label them, using Latin names as well as common names
- Do a tree planting project in the community or at another school
- Investigate why trees are important
- Implement an Adopt-a-Tree project
- Organise a field trip to a forest or park
- Any other related activity approved by Programme Staff or NGO



CATEGORY 3: ESTABLISHING/STRENGTHENING AN ENVIRONMENT CLUB

Each school must form or strengthen an environment club, or select an existing club to carry out environmental activities. The club must show evidence of regular meetings and have a slate of officers (e.g. President, Vice President, Secretary).

The club will be expected to undertake at least two small projects or one year-long project within the school and may also participate in a community outreach activity.

Each activity is explained more fully under the **Implementation** section of this Manual.

ACTIVITY IDEAS



First, you must form or revive an environment club, elect officers, and establish regular meeting dates, preferably a minimum of one per month, and keep records of decisions taken at meetings. Suggested activities for the club are:

- Start a litter warden programme
- Make environmental presentations to the school
- Collaborate with or join with other clubs, such as 4-H, Science and Key Clubs, Scouts or Brownies.
- Undertake an advocacy campaign on an issue of importance to the community
- Make posters to put around the school
- Do a campus, beach, roadside or gully clean-up
- Have an open day for parents on environmental issues
- Organize an essay or poetry competition with an environmental theme
- Develop and perform environmental skits, songs, poetry, drama and dance
- Do bee-keeping in collaboration with a 4-H Club
- Organize a Trash-A-Thon
- Organize an environmental field trip
- Develop an environmental pledge for the school
- Any other suitable activity approved by Programme staff or your supervising NGO

CATEGORY 4: ENVIRONMENTAL RESEARCH

Each school will be required to do research on one topic which is of interest to students and teachers. Each activity is explained more fully under the **Implementation Section** of this Manual.

SUGGESTED RESEARCH TOPICS



- Observe the animals around the school and record where they live, their habits, food sources and what may threaten them
- Endangered Jamaican animals
- Environmental effects of fossil fuel-based energy
- Alternative sources of energy (solar, wind, etc.)
- Energy conservation
- Air, land or water pollution
- Deforestation
- Water conservation
- Soil erosion
- The importance of wetlands
- Coral reefs
- Biodiversity
- Watersheds and rivers of Jamaica
- Any other suitable topic approved by Programme staff or your supervising NGO

Research should show an understanding of the issue, including environmental and health effects. Students should identify possible solutions and must show evidence of thought and discussion on effective alternatives. Obstacles to successful solutions should be identified as well as ways these obstacles might be overcome. Students could hold discussions with the community to seek solutions.

The expected depth of research will be dependent on the age level of students.

C. ACTION PLAN

If your action plan is not submitted at the January visit your school will automatically be placed in the "Affiliated" group

TERM/MONTH	ACTIVITIES
	CHRISTMAS TERM
AUGUST 25	Application form deadline
SEPTEMBER- OCTOBER	First supervisor visit (Discuss the Action Plan)
BY THIRD WEEK IN OCTOBER	<p>Tasks to be completed by school are:</p> <ul style="list-style-type: none"> • Action Plan for the Christmas term developed with focus on: <ul style="list-style-type: none"> ⇒ Garbage Management activities decided, time-table developed ⇒ Greening activities decided, time-table developed ⇒ Area for compost heap identified ⇒ Formation of the environment club and election of officers ⇒ Environmental research project chosen ⇒ Areas of curriculum infusion identified and recorded
OCTOBER	<ul style="list-style-type: none"> • One-day teacher training workshops (in each region)
NOVEMBER- DECEMBER	<p>Optional supervisor visit</p> <ul style="list-style-type: none"> • Fund raising options should be explored • You should have started at least 2 (two) activities in any of the four categories. For example: <ul style="list-style-type: none"> • Garbage Management <ul style="list-style-type: none"> ⇒ Activities such as audits, litter control, recycling programme should be started in November and be well under way by the close of term • Greening Your School <ul style="list-style-type: none"> ⇒ Garden and/or tree nursery - areas should be identified and prepared; problems such as lack of fencing, water or soil erosion should be identified and planned for ⇒ Tree planting - venue decided on; seedlings sourced if separate from nursery ⇒ Compost heap must be started • Environment Club <ul style="list-style-type: none"> ⇒ One club activity should be completed or you should be working on a year-long activity. Records and minutes for the entire project period must be kept ⇒ Plans for the next term in progress • Environmental research <ul style="list-style-type: none"> ⇒ Project should be started • Areas of curriculum infusion should be identified, implemented and recorded

	<ul style="list-style-type: none"> Action plan for Easter and Summer terms developed
	EASTER TERM
JANUARY	<ul style="list-style-type: none"> 2nd Supervisor visit (Continuous Assessment) Advanced schools' workshop
DURING JANUARY YOU SHOULD	<p>Continue activities from first term</p> <p>Begin additional activities. Make sure you have now started an activity from each of the four categories. For example:</p> <ul style="list-style-type: none"> ⇒ Fully functional waste management programme ⇒ Planting and caring for garden or trees or doing other greening activities ⇒ Second club activity or working on ongoing project ⇒ Working on research project <ul style="list-style-type: none"> Present your Action Plan to your Supervisor <p>(Remember to infuse environmental education activities into the school curriculum)</p>
FEBRUARY	<ul style="list-style-type: none"> Second round of teacher training workshops in each region
BY THE END OF FEBRUARY YOU SHOULD	<ul style="list-style-type: none"> Be continuing and developing activities, e.g. <ul style="list-style-type: none"> ⇒ Working on second club activities or working on year-long activities ⇒ Working on research project
MARCH	<p>3rd supervisor visit (Continuous Assessment)</p> <p>You should be nearly ready for assessment:</p> <ul style="list-style-type: none"> ⇒ Main club activities completed (clubs should still meet and develop and implement activities for after judging) ⇒ Well-maintained garden, nursery or tree planting project ⇒ Other greening activities ready for presentation ⇒ Research project finished ⇒ Sustainability plan completed for Easter holiday for all programme areas, especially greening ⇒ Records and displays being prepared for assessment by judges on all programme areas
APRIL/MAY	<p>Regional judging.</p> <p>Beginning of summer term. Activities must be sustained during this period</p>
	SUMMER TERM
MAY/JUNE	National Judging
MAY/JUNE	<p>4th supervisor visit</p> <ul style="list-style-type: none"> ⇒ Evaluate the programme ⇒ Plan and implement a summer sustainability plan ⇒ Complete application form for next school year ⇒ Continue Programme activities
JUNE	Awards Ceremony

D. KEYS TO SUCCESS

1. PRINCIPAL AND TEACHER COMMITMENT
SEP works best when the principal is committed to the programme, and it is supported by teachers at all grade levels

2. EVIDENCE OF CHILDREN'S LEARNING AND INVOLVEMENT

Various learning skills will be encouraged during the Programme. For example, students will be asked to observe closely, describe accurately, identify and analyze problems, brainstorm possible solutions, prioritize alternatives and select the best solutions.

When judges visit the school, they will ask students questions about their work and project activities. The quality of student response, their enthusiasm, the detailed reasons WHY certain things have been done, the degree to which they know and can explain what they did, what happened and why, the thoroughness of their record-keeping - all these will be central to the judges' opinions about the success of the particular programme activities.

Please take note of the infusion ideas which have been provided for various grades/subject areas on the activity pages. These will help you to infuse the programme into your regular day-to-day activities

Each school will be asked to show evidence that teachers have infused environmental activities into the regular school curriculum. Teachers are encouraged to find appropriate and effective ways to utilize environmental content in mathematics, language arts, art and craft, drama, music, social studies, science, and other subject areas

4. DEGREE OF CHANGE AND IMPROVEMENT

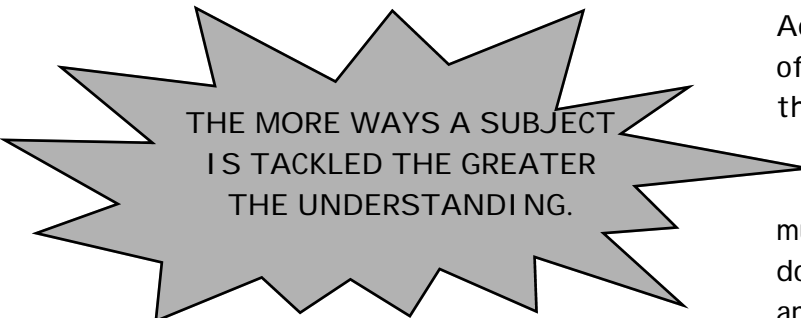
The degree of change and improvement in the school and/or community environment will be assessed by judges. They will be helped to make such judgments by the "first school visit report" completed by each school at the outset of the project as well as from supervisor reports submitted during the year.

5. PARTICIPATION

Activities should involve a wide cross-section of the school so that all students are aware of the importance of maintaining a clean school environment and of protecting natural resources. The degree of involvement of community groups, parents, the PTA or local vendors and businesses in environmental awareness and action will be assessed. Schools will focus mainly on parents, the PTA and immediate community. Schools can also adopt a nearby river/pond/forest/beach/gully/area of open land.

6. RECORD KEEPING

Students at all grade levels will be expected to keep an accurate log of their activities in garbage management, recycling, tree planting, or-



THE MORE WAYS A SUBJECT
IS TACKLED THE GREATER
THE UNDERSTANDING.

The teacher's role is to organize projects and activities that will promote this learning. Teachers are not expected to make signs or posters, write words for songs or keep records of garbage reductions.

INFUSION INTO THE CURRICULUM

ganic gardening and field trips. Records will include planning processes, activities undertaken and the results. Environment Clubs will keep records of their meetings, activities and accomplishments. Project purchases and sales (for example, of recycled items or of produce from the garden) should be recorded. It is often useful to document projects with photographs, particularly for gardens, as drought, vandalism or animals can destroy a lot of work overnight.

It is vital to keep records so new people at the school can see how things were done and know immediately what was successful. Good records will enable judges to assess school effort and achievement even after an unanticipated event, such as a flood.

7. CREATIVE PROJECT ACTIVITIES AND PRESENTATIONS

Various methods of carrying out projects or making the students' work 'visible' are encouraged. For example, students are encouraged to create environmental drama presentations, newsletters or magazines, posters, songs, reports, models, art and craft products or to organize events and Open Day exhibitions or other public presentations.

8. SUSTAINABILITY

Evidence of the school's commitment to continue important elements of the Programme will be assessed. It is particularly important to have a plan to handle school holidays, so schools do not have to re-implement programmes each year.

