



BETHECHANGE!

Youth Solutions for the New Millenium

AMBASSADOR PROGRAMME



An Introduction to Sustainable Development

Young people educating young people to make a difference through the choices they make and the way they live their lives.

A Project of Peace Child International sponsored by DEFRA



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Be the Change! Ambassador Programme

Introduction

Welcome! To the Be the Change Challenge! Ambassador Programme.

The aim is to train young people to promote sustainable lifestyles to their peers in a fun and memorable way.

Ambassadors can be any age from 14 –25. Once trained, Be the Change! Ambassadors will go into schools, youth clubs, and Guides or Scouts troops to make their presentations, and run interactive sessions on Energy, Fair trade and Waste.

Be the Change Challenge! Ambassador Programme is a project of Peace Child International – an educational Charity that works to empower young people to inform themselves and take action.

Be the Change!
See the Change!
Live the Challenge!

Goals of the Programme

1. To achieve behavioural change in consumption habits – both at home and at school.
2. To try and make young people change their habits in relation to waste/recycling, the way they use energy and their consumer choices.
3. To promote the lifestyle contract as a way of developing sustainable habits.
4. To show young people that they can make a difference by the way they live their lives and the choices they make.

Benefits For the Ambassador

- Be trained to become confident in public speaking in front of audiences of your peers and/or adults;
- Have the responsibility for arranging your own programme of presentations and workshop sessions. Excellent project management experience;
- Get a certificate after you have done FIVE presentations to audiences of more than ten persons;
- Gain a CV-enhancing line about making presentations – important to any career;
- Have the chance to get articles about yourself in local newspapers
- Through the Peace Child network, learn about what young people in developing countries are doing to promote sustainable development and help to build links with them.
- Develop skills which can be adapted for other curriculum subjects at school and university.

Outreach

Introduction

As a rule each Ambassador is expected to give 5 presentations to audiences of 10+ in order to earn a certificate. This can be at a primary school or youth group. This programme involves 3 visits – 1) Setting up the programme at the school/group 2) Delivering the workshops and launching the lifestyle contract 3) Going back to the school, to see how they got on and give certificates. The presentation can be given to different classes in the same school.

Planning

Decide to whom you would like to make your presentations i.e. primary students, brownies, scouts etc – we recommend children aged 8 and upwards. Or would you be happier with older pupils? Everyone needs to learn how to live more sustainably and every presentation counts, no matter who the audience. Just make sure that you are presenting to more than ten people. Make a list of all the schools, youth groups, clubs, societies, church and religious congregations, local events and congresses that you could approach. People are much more likely to let you come to their school or group if they know something about you – so talk to your parents, friends and relatives about who they know. Try your old primary school. Look at your timetable and work out when you might be free to do presentations

Contacting Schools

Arrange with your teacher/coordinator who is going to be the point of contact with the schools. Call up the school and speak to your contact, the head teacher or the citizenship coordinator.

Explain what you plan to do and say you will send a letter outlining information about the programme and what you can offer. This should be sent together with a copy of the lifestyle contract and a flyer.

Arrange a date for the Visit one

Materials for outreach

(Found in teacher/coordinator pack)

- Outreach letter- to go to schools
- Lifestyle contracts
- Visit one form- to write down all school details and dates of visits
- Consent Form (for parents)
- Consent Form (for school)
- Notes for teachers

Visit One

(To be done in person or on the phone, by designated contact):

The purpose of this visit:

- a) To work out which classes you will be working with.
- b) Dates of visits
- c) Timetable for the visits
- d) Describe the workshop you will give.
- e) Get contact details of teacher you are working with. (Email address and phone number)
- f) Work out how many lifestyle contracts you will need for pupils and how many charts.
- g) Discuss with the teacher, what equipment will be needed.

Visit Two

This is where you deliver the assembly and workshops or just the workshops. Allow about 15 minutes at the end of the workshop to go through the lifestyle contract. Give each child a copy. Establish what pupils are already doing to be sustainable and record it on chart and your sheet. If you run out of time you can explain it briefly and get the teachers to go through it with them after you have gone. Give each teacher a chart to go up in the classroom. Before you leave your Visit 2s, set up a date for the visit 3s. This should be four weeks after your workshops.

Visit Three

After the four-week period is up you will return to the school to see how the children got on. To see if the lifestyle contract has made any difference to them or their families. To evaluate the change you need to get them to fill in the enclosed questionnaire. See notes on evaluation. Collect these in together with the Teachers Evaluation and give them to your teacher/coordinator.

Delivering the Programme

Step One Preparing workshops:

The Ambassador pack has ideas for workshops on Fairtrade, Waste and Energy. Decide whether you want to give an assembly presentation + workshops or just do the workshops. If you want to use power point, you can get visuals on a CD from Peace Child. We also have the visuals that go with the Assembly skits.

Step Two: Understanding the lifestyle contract.

The lifestyle contracts are crucial to our programme, so it is important that you understand how it works before giving presentations.

Visit Two: Towards the end of Visit 2 (allow 15 - 20 minutes) each pupil gets given a lifestyle contract.

i) Questionnaire: Ask each pupil to go through the contract and mark down what they do for each pledge in the circles on the right hand side. Example: Do they turn off the lights always/sometimes/never? Stress that it is really important for them to mark down what they actually do. Not what they think we would like them to do. Give them 5 minutes.

ii) One Ambassador goes through pledges asking them to put their hands up, "Who switches your lights off when leaving the room – always" Other Ambassador marks the number of "always" in the enclosed form. Then repeat the question with "Sometimes" (By making these and knowing the amount of pupils in the class you can work out "never" without asking them.) . Go through each pledge – marking the figures on your form.

iii) Explaining pledges Having completed the questionnaire say what we now want them to do is to select 5 pledges – things they can do better eg. If you "sometimes" turn off the lights you could make sure you do it "always". If you never take a bag when you go shopping, you could start doing it. Get them to colour in the circles of the pledge numbers on the left that they plan to do and mark the pledges on the back. (They may need help with this – be sure to have one of the Ambassadors explain it to the teachers, so that they can go over it with the pupils later if need be)

iv) What about the personal choice? The basic lifestyle contract has a choice of 11 pledges. You will notice that number 12 is free so that pupils can make their own pledge (providing it's sensible). This is for people who say they do all these things already. They could then come up with an action they could do in school, like collect paper and use it both sides or another idea. They should check it with the teacher. We ask them to commit

to five pledges that they think they can keep

v) Explain the idea is that they take the contracts home with them and each day tick off which ones they do. Discuss how some pledges cannot be done each day such as recycling, At the end of each week the parent/guardian should sign to say that the pupil has kept to their pledges. The pupil then takes it into school and the teacher marks their progress on the chart.

vi) Encourage pupils to do lifestyle contracts and tell them if they complete it for 4 weeks they will be given a certificate printed on recycled paper. This will be useful in their school files.

The Chart: The teacher or appointed monitor should record the progress of each pupil on the wall chart provided (weekly). Teacher's involvement is crucial in enabling the pupils to fulfil their pledges.

At Visit 3: You will take in your completed evaluation sheet with you. Hand out new evaluation sheets to pupils, Give them a few minutes to record "always/sometimes/never" beside each pledge. Then go through form as you did on previous visit. Find out who has done the lifestyle contract. Ask them to write comments on sheet about their experience. Find out from teachers if those who did contracts should be handed certificates at the session or whether they want to present them with certificates at a later assembly.

Get teacher to fill in Teachers Questionnaire. Collect questionnaires. After session write down your own comments on Ambassador questionnaires.

Running a Visit 3

Purpose: To see if there has been a behaviour shift
To get evaluation forms from teachers and pupils
To award lifestyle certificates (find out if teachers want you to give them out during class or whether they are to be awarded at an assembly later on.)

What you will need to take:

Lifestyle certificates for those who have completed pledges

Evaluation forms

Teachers evaluation forms

Class lifestyle evaluation form (that you used in last visit)

Ambassador evaluation form (for your own notes)

Plan of session (duration in each class approx 15-20 minutes)

Find out what they remember from last visit. Then go over forms.

Finish by encouraging them to go on – finding more things they can do to save energy, reduce waste.

Evaluations:

Tell pupils that you are going to ask them the same series of questions that you asked at your last visit.

Hand them each an evaluation form and ask them to fill in "Always/sometimes/never".

Then go through all pledges and do a show of hands as you did in last

If they have made a behaviour shift be sure to congratulate them. Discuss whether any of them had made up their own pledges.

Those who have completed the pledges:

Ask them to write down

i) Which pledge(s) did you do that will become a habit

ii) Did your family get involved/do anything different

iii) (An optional question for those who are enthusiastic)

What else do you think you could do (at home or school) to become more sustainable?

Those who did not complete pledges

Find out if they did any of the pledges – even if they didn't keep up the contract. See what prevented them and discuss whether they learned anything

from the process. Get them to write down what they will remember.

Get teachers to fill in their evaluation forms.

Finish session by awarding certificates (if that is what teachers want)

Thank them for taking part and hope that continue to think about ways that they can make a difference.

At end of sessions:

Hand in to your Teacher/coordinator:

- Teachers evaluations
- Pupils evaluation forms
- Class Evaluation chart
- Ambassadors notes



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Workshops

- 1) General activities
- 2) Fairtrade
- 3) Waste
- 4) Energy
- 5) Global Warming

Planning your sessions

Rough guide including approximate timings. You do not have to stick to exact timings. If you are doing an Assembly presentation it usually lasts between 15-20 minutes. We will give you 2 outlines.

A

A Classroom session where you do not do an Assembly Presentation and have a session lasting an hour.

The following are suggestions about what should be included in the session:

- Introduce yourself and the purpose of the Ambassador Programme .
- Introduction. Discuss what being sustainable means.
- Definition 'Some for All for Ever'.
- The Box (5 minutes total)
- 50p/ what can it buy? (2 mins)
- 3 pillars – (3 minutes)
- Waste/Energy/Fair Trade workshop (35 mins)
- Introduce lifestyle contract. See form. (10-15 mins)

B

Classroom-session where you do an Assembly Presentation and we have session lasting 1 hour

- Go over what they learned from Assembly (5 minutes)
- Introduce yourself and the purpose of the Ambassador Programme (if you have not already done this during the assembly) (5mins)
- Waste/Fair Trade/Energy workshop. (35 mins)
- Introduce lifestyle contract. See form (10-15 mins)

Recommendations

- Never give out wrong facts or say something you are not sure about. Don't be afraid to say you don't know, if they ask you a difficult question. Tell them you will find out and let them know, or suggest that you all find out together.
- Use facts for the presentation - especially when working with older children.
- Preferably learn them. They can be a good tool for the presentation especially when you run out of things to say.
- Always give yourselves at least 15-20 minutes to set up at school.
- Keep a close watch on the timings while doing the presentations and classroom sessions.
- Work out ahead of time roughly how long each activity is likely to last. Don't run out of time in the middle of an activity.
- Make sure you speak clearly and can be heard.
- Make sure you repeat key points, so that they remember.

50p

(Holding the 50p) Can you see this... what is it? (Wait for answers). Yes a 50p, what can you buy with it?

What can you get for 50p? (Wait for answers.) At the moment more than a billion people on this earth live on less than 50p a day. (Hold up 50p) 50p... This is to look after a family, feed them, and provide water, clothes, medicines, and schooling. It can't be done. They don't have even the basic things we take for granted.

Meanwhile we spend, throw things away, pile stuff in the dustbins and buy more than we need.



General introduction to sustainable development

The Box Game

OK – here's a way to explain it. Have a look at this box. Imagine it's the world. Ask people to take things out... (Let people take things out.) What have you got left? – An empty box. It's like our world.

Let's go back on this – get people to put the thing back they took out. Ask each person to think about why it is important. Discuss each item with them. Oil leading to alternative energy.

Oil – running out of oil-40 years left? Now less oil than before – more demand.

Ozone layer – global warming.

Water – not wasting water – turning off taps. Many countries have shortage of water. Aquifers – underground water systems running dry...

Animals – how everything is needed – ecosystem

Wood and Forests – why they are useful – sustainable forestry. (Important to know you can cut down trees but should plant more.)

Man-population – how many people across the world don't have the basic necessities of life? There are more people than ever before, using more land, more resources.

So let's think of a way to describe sustainable development. (Ask them.) Then say what we think...

Living today with tomorrow in mind or Some for All for Ever – Some things for everyone for ever. (Show the poster.)

Tip

Connect the things removed from the box to how our resources are interconnected (water, soil, plants, animals) What will the impact be on our future generation if there is nothing left on our planet, like the box and bring in the importance of sustainable development.

Questions for discussions

Water

- Can we live without water?
- Can you think of the different ways in which we pollute water?
- What are some things that we can do to use less water and cause less pollution?
- What can you do to help the people who don't have access to clean water?
- Do you think that its fair that the poorest people in the world, often pay more for water than the richest?

Forests

- Why are forests and tress so important to us?
- What can we do?
- How will the loss of forests affect the environment?
- How are we responsible for the loss of forests in another country?

Energy

- Why is Global Warming a big deal?
- Why should we save Energy?
- How does the production of Electricity affect the nature?
- What are the forms of energy that will last forever?

Waste

- Why is it so important to reduce-reuse and recycle?
- What can we do to stop the spread of landfill sites?

Fairtrade

- How many Fairtrade products do you know about?
- How does a Fairtrade product enrich the life of a farmer?
- If your local store doesn't sell Fairtrade products, what can you do about it?
- Why do you think Fairtrade products are sometimes a bit more expensive?

Fairtrade Workshop



Fairtrade is about better prices, decent working conditions, local sustainability, and fair terms of trade for farmers and workers in the developing world. By requiring companies to pay above market prices, Fairtrade addresses the injustices of conventional trade, which traditionally discriminates against the poorest, weakest producers. It enables them to improve their lot and have more control over their lives. Fairtrade products range from goods such as coffee, chocolate, tea, and bananas, to handcrafts like clothing, carpets and even footballs. A fair day's work for a fair day's pay!

1) Introduction

Chocolate Discussion

Aim: To get the class thinking about the chocolate industry and to find out their opinions before they learn about fair trade. This will get them thinking and be useful for evaluation at the end of the session.

Suitability: Whole class discussion

You will need: A list of questions to stimulate discussion.

Suggestions for Questions:

1. Who likes chocolate? (ask the class to raise their hand).
2. How many types of chocolate bar can you name? (write the answers on the board).
3. What makes you choose a particular bar? Is it taste, cost, shape, size or advertising? (Write the reasons on the board and rate them from one to five, or as not important, quite important or very important.)
4. How much do you think people in the UK spend on chocolate each week? (ask several children for suggestions) For years 3 and 4 ask them how many chocolate bars they eat a week? And work it out.
5. If a large chocolate bar costs £1. Who do you think should get the most? (Write the suggestions on the board but do not get into extensive discussion as this issue will be covered in more detail with The Chocolate Game.)



2) From Bean to Bar

Aim:

To show the links in the chain from farmer, producer and consumer in the production of chocolate.

Suitability:

Small groups of five or six.

You will need:

A 'From Bean to Bar' game board for each group and a set of eight pictures and captions.

1. Divide the class into small groups and distribute the game boards, pictures and captions.
2. Tell the class to put the pictures and captions in order to show the process of making a bar of chocolate, beginning with the cocoa bean and ending with the finished bar.
3. Allow ten minutes for the task then present the class with the correct answers.



3)Chocolate Game main title

Aim:

To demonstrate the economic difficulties of small scale farming and global trade.

Suitability:

Whole class activity with six volunteers.

You will need:

Six name badges for Government, Shops, Chocolate Company, Middleman, Non-Cocoa Ingredients, and the Cocoa Farmer. One bar of Fairtrade chocolate with 24 squares, or a model of a chocolate bar with 24 squares.

1. Give each of the six volunteers a name badge, they will represent one of the following: Government, Shops, Chocolate Company, Middleman, Non-Cocoa Ingredients, and the Cocoa Farmer.
2. Award the Cocoa Farmer a chocolate bar which represents payment for farming the cocoa beans. Invite him to take it but warn him he must make a few payments before he leaves . The payments are as follows:

Non-cocoa ingredients	3 squares (13%)
Government	4 squares (15%)
Shops	5 squares (22%)
Chocolate company	10 squares (43%)
Middle men	1 square (3%)

3. Explain that the farmer is left with just one square to support himself and his family with food, health care, shelter, education and so on.
4. Discuss the difficulties this provides, ask for suggestions of how this may be overcome and what we can do to help.



4) Lynda's Story

Hello. My name's Lynda. I'm 12 years old and I live in Mim, a village in Ghana. I have two brothers and four sisters. My parents are divorced and I live with my dad who is a cocoa farmer. After school I often help him in the cocoa fields, particularly during harvest time. Most of my friends' parents are cocoa farmers too. Although my village has no running water or electricity, the young people there are like everywhere else in the world. We love music, fashion and dancing.

In Ghana there are about one and a half million cocoa farmers. In the last 30 years the price they are paid for their cocoa beans has dropped right down, so they hardly make any money to live on. Sometimes they have to borrow money but it's difficult to pay back their debts. To make things worse, there have been bush fires, and months with no rain. The cocoa tree is very tall – up to 15 metres high. When the pods are growing it's vital to keep a close eye out as rats, insects and weeds can destroy them.

About ten years ago one group of cocoa farmers joined together to form a group called Kuapa Kokoo. They sell some of their cocoa through Fairtrade. This means they get more money for each sack of beans – and they know they'll have a regular income.

The Kuapa Kokoo can use the Fairtrade money for training and to buy farming tools to help with their work. They learn how to look after the environment, and grow their cocoa without using harmful chemicals. Kuapa Kokoo includes women and men – there are now far more women working in the organisation and making important decisions. There are new schools for us too – the extra money from Fairtrade can help pay for our schools fees and school books.

Kuapa Kokoo trains its farmers so they know how to weigh and bag their beans. This had been a problem because some cocoa buyers would cheat the farmers by using inaccurate scales which didn't weigh fairly.

Since we've been selling our cocoa through Fairtrade we have new water pumps for clean water.

My Dad and the other farmers also learn about managing their money and how to make extra money in the 'hungry season' when the cocoa is growing – for example by making soap from the cocoa husks, which means a waste product is being recycled! More and more villages want to join Kuapa Kokoo, but they can't sell all their cocoa through Fairtrade – there still isn't enough demand for Fairtrade chocolate in the UK.

Aim:

To express the reality of being a cocoa farmer in Africa and to identify the benefits Fairtrade has brought to one group of farmers.

Suitability:

Whole class activity.

You will need:

The Lynda's story script and a red and green card for each pupil.

1. Explain to the class that you are going to tell a story about someone just like them, Lynda.
2. Give a red card and a green card to each pupil and tell each of them to raise the red card whenever they hear about a difficulty the farmers have to face and the green card whenever they hear about the benefits of Fairtrade.
3. Ask the pupils how we can be involved in reducing the difficulties, and adding to the benefits.
4. If you have time ask the pupils to feed back the information they have heard. This could be recorded on the board as a list of difficulties and benefits.

Chocolate Evaluation

Aim:

To find out from the class what they have learned referring to their initial thoughts. Looking at your initial questions on the board, go over what they said..

1. If most children said they liked chocolate in the first session, tell the class that if they are buying lots of chocolate that it is really important that they buy Fairtrade chocolate to support the small farmers.

2. Choosing a chocolate bar – Revisit initial questions.

Cost - If the pupils rates cost as important show that Fairtrade chocolate isn't much more expensive, these are example prices -

Co-op Fairtrade Milk, Fruit and Nut or Crisp Chocolate (150g)
– £0.95 or £0.63/100g.

Divine Fairtrade Chocolate (100g) - £0.99 or £0.99/100g

Dairy Milk (162g) - £1.39 or £0.86/100g.

Twirl (43g) - £0.45

Co-op Fairtrade Milk Chocolate (45g) £0.39

Dairy Milk (43g) £0.49

Tell them what we actually do spend on chocolate in the UK.

- Each person in Britain spends more than £54.15 per head per year, which is more than twice the European average of £28.93.
- On average each person consumes 200 bars of chocolate per year.

(Source: www.icco.org/questions/world.htm <<http://www.icco.org/questions/world.htm>>)

Fairtrade Extension Discussion

1. Ask if the pupils have seen any other Fairtrade products.

Products include bananas, mangoes, grapes, lemons, avocado, beer, wine and spirits, biscuits and cakes, cereal, jams and spreads, coffee, tea, hot chocolate, cosmetics, fruit juice, nuts, sugar, rice, footballs... there are currently 350 products are certified by the Fairtrade logo.

2. Discuss

Where can you buy Fairtrade products in your area? What could you do to promote fair trade in your school?

Fairtrade websites

www.dubble.co.uk
www.fairtrade.org.uk
www.divinechocolate.uk
www.traidcraft.co.uk
www.youngcooperatives.org.uk
www.makepovertyhistory.org/schools/index.shtml
www.fairtradefederation.com
www.eftafairtrade.org
www.transfairusa.org
www.oxfam.org.uk/fair_trade.html

Workshop on Waste (aimed at Years 4,5&6)

Aims

- To look at how waste is generated and its effect on the environment.
- Learning how to reduce, reuse, refuse and recycle and closing the loop
- To see how what we have in our lunchbox affects the environment.
- To introduce lifestyle contract.

Introduction (5 -10 mins.)

If you are doing the Me and My World presentation you will already have introduced the idea of landfill sites. Discuss what they remember. If you are not doing the presentation, then as well as doing the general introduction, you need to show what happens to rubbish and its journey to the landfill site. Talk about problems of landfill sites. We are running out of space and putting unnecessary things into it. Go over the concepts of **reduce**, **refuse**, **reuse** and **recycling** waste. Reducing the amount of waste we create, refusing unnecessary bags/ packaging, reusing durable items, recycling whatever we can and buying recycled products.

Load Of Rubbish (10 mins)

Have teachers put pupils into groups and give each group a bag of (clean) rubbish together with an accompanying sheet :

Name of item.	Recycle	Reuse	Landfill.
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Each bag should contain

Cereal box
 Plastic Ice cream box
 Plastic fruit tray – no lid
 Plastic bottle
 Magazine
 A carrot
 Crisp packet
 Foil pie dish

Each item is examined and the students complete the worksheet categorising which items can be reused (and how) if they can be recycled, or if they should be sent to a landfill site. Discuss findings with groups.

The only item that needs to go to the landfill is the crisp packet because it is a mixture of materials – foil/plastic.
 (With Years 3&4 focus on sorting and categorising. With Years 5 & 6 focus more on why.)

Waste Websites

www.shanks.co.uk/shanks/education
www.remarkable.co.uk
www.capitalwastefacts.com
www.wasteonline.org.uk
www.esauk.org/waste/facts
www.recycle-more.co.uk
www.slimyourbin.org.uk
www.wastewatch.org.uk/

Waste Facts

- Landfills: The UK produces 434 m tonnes of waste each year - enough waste to fill the Albert Hall every year.
- Householders produce almost 30 m tonnes of waste on average each year.
- 73% of this goes to landfill, even though 90% of this is recoverable - it could be recycled, composted or used to generate energy.
- Landfill is still the main means of managing most of the UK's waste. Currently, 80% of municipal waste and around 50% of industrial and commercial waste is managed by landfill in the UK
- Landfill provides a safe disposal option for wastes that can't be recycled, composted or used to generate energy.

Decomposition (for Years 5 & 6) (5 mins)

Remaining in their groups the students are given different cards showing items such as cans, glass bottle etc. sheet and asked to match them to the amount of time they think they would take to decompose in a landfill site. Pupils discuss which items can't be recycled and possible suggestions for how to deal with the problem. We reiterate give the importance of remembering Reuse, Reduce, Refuse and Recycle.

Closing The Loop (3 mins)

We then highlight the importance of buying recycled products to ensure that recycling has a purpose. We discuss what recycled products we can buy in the UK such as pencil cases made out of tyres, pens made out of plastic cups, fleeces made out of plastic bottles etc. (There are websites with details on what you can buy.)

Good lunchbox, Bad Lunchbox (10 - 15 mins)

What goes into your lunchbox can effect the environment!

Make up a lunch box/bag. You will need:

Examples of lunchbox food (or models) such as a packaged sandwich and a homemade sandwich wrapped in greaseproof paper, a Fairtrade and non-Fairtrade banana, a South African grown apple and a UK grown apple, a piece of fresh cheese and a sample of processed cheese and so on.

The Lunchables packet is a good example of an unsustainable lunch. Lay out the selection of food and ask 2 volunteers to split the food into two groups, 'Good Lunchbox' and 'Bad Lunchbox' making a justification for their decision. This will provide the opportunity to talk about waste, recycling, Fairtrade, and food miles (aim the level of discussion to match the age group)

Go over need to think about the consequences of our actions.

Introducing Lifestyle Contract (See notes) 15mins

(The timings can vary according to the pupils. It is always best to have more things to do if you need to, such as a quiz or Globingo.)



Energy Workshop

Aims:

- a) To recognise the importance of energy for society and how it contributes to global warming.
- b) To look at renewable, non-renewable energy sources, and understand where they come from, how we use them, etc.
- c) To discuss ways of saving energy in our homes and introduce the Lifestyle Contract.

Observation:

If you are not doing an Assembly Presentation, introduce yourselves and go straight into talking about energy.

Introduction:

What is energy?

Ask students question; write down answers on board.

[Explanation: Energy comes in many different forms. It is all around us, it is in everything. It makes things happen, move, makes things hot and cold, etc.]

Thought shower:

Where does ENERGY come from?

Ask students question; write down answers on board.

[Possible answers: electricity, sun, wood, coal, wind, water, etc.]

Acknowledge answers, put up pictures for different forms of energy. If you don't have pictures, acknowledge and move on.

Energy sources: Renewable and non-renewable

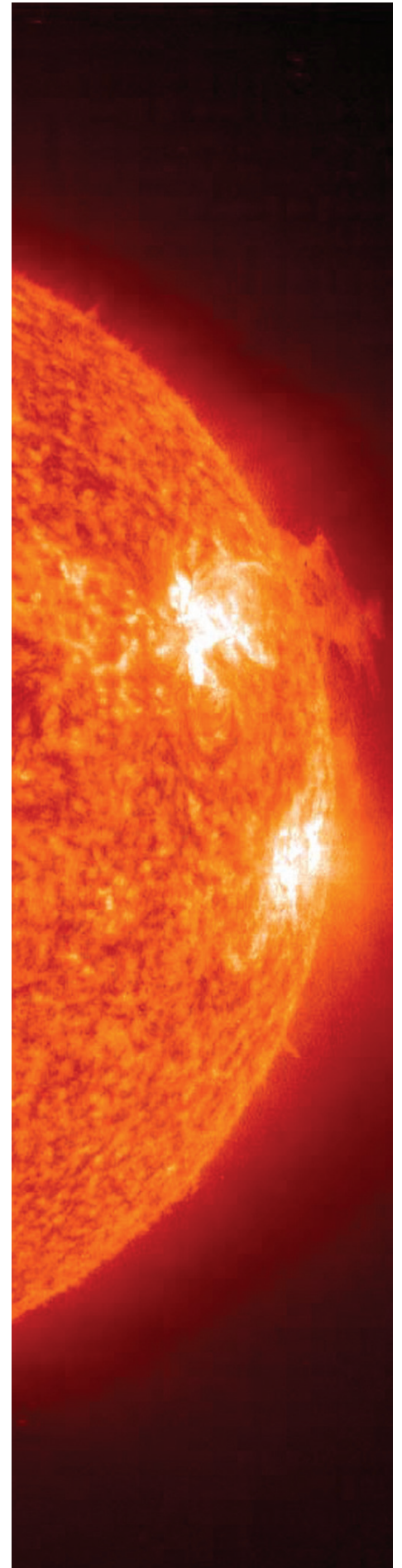
Bring out Little Men pictures and labels for this part! Introduce the little men and explain why they are happy and sad.

Happy Little Man = renewable energy source; it goes on and on.

Sad Little Man = non-renewable energy source; when it's gone it's gone. And that's a problem.

Using volunteers, group the different energy sources under Happy and Sad Men.

Refer to Sad Man. This man's energy all (oil, gas, coal) comes from the earth. There is a problem here: when it's gone, it's gone.



Who knows which of these we use the most? Ask. Answer =Oil.

Do you know what we use oil for? *Use picture of oil rig and electricity power plant + car and petrol pump to illustrate answers! Put these around oil pic.*

But there is a problem: what does oil do to the environment? Point to picture of car + gas pump; add pictures of factory, truck, etc. POLLUTION.

Pollution leads to global warming. *Make sure they know what global warming is!*

[Explanation: it means the world is getting hotter and hotter, the ice-caps are melting, we are getting more floods, and we're getting more extreme weather, colder in winter and hotter in summers, more rain or droughts, mountains are eroding!]

What else is made out of oil? Answer= PLASTIC! *Put pic of plastics next to other pics around oil pic.*

What in this classroom is made out of plastic? *Ask and let them give as many varied answers possible!*

We are facing a BIG problem! We use so much oil, and it's running out, as well as polluting. So what is the solution?

If you had an Assembly Presentation:

We should REUSE and RECYCLE plastics; and we must REDUCE the amount of energy we consume, and also...

If you didn't have an assembly: Well, we can use renewable sources, such as look at happy man pics. Because they will go on and on, AND they don't cause pollution, which means less global warming!

But, as well as using renewable energy, what else must we do? Answer=USE LESS ENERGY.

Thought shower:

How do we use energy? Answer=Electricity

What do we use electricity for? Get answers from students and write down on board.

Now we're going to see what uses up the most electricity. Just as a hint, keep in mind that anything that produces heat uses the most electricity, and think about which devices are on the longest, which are expensive to run and which are most essential.

Appliances Activity:

Divide into small groups: How much energy does each appliance use?

Students have to match up the appliances to the light bulbs. The light bulbs signify how much electricity each appliance uses.

Following this we have a discussion on what surprised us most. Return to list on board. Get students to call out which items should be circled in red – as high energy guzzlers.

Non-Eco-Friendly House – Spot the problems!

Students get into groups of 2-3 with 1 sheet between them to look at and discuss the picture of the non-eco-friendly house and spot the problems. Ask students to circle in red the problems in each room.

Go room by room, group by group, asking them to spot the problems.

Ask where is energy being wasted, and how we can save energy.

After activity, ask where do we waste energy at school and what we can do differently. Introduce the Lifestyle Contract.

Workshop on Global Warming – (aimed at Years 4,5 & 6)

Aims

- a) To understand what Global Warming is
- b) To understand how we contribute to it and what we can do to lessen our impact on the earth.
- c) To introduce the lifestyle contract

Introduction

If you are not doing an Assembly presentation, introduce yourselves, talk about the work of Peace Child and go straight into talking about the impact we have on the world. (Show image of footprints and explain)

If you have done an assembly presentation – discuss with children what they learned from it. (5 mins)

Show Defra video . Discuss with class what they think of it. (5 mins)

Group Activity

Explain the activity. Each group needs to put together the puzzle Then they must think about what impact their object has on the environment. Hand out pictures of puzzles to children – Aeroplane, Cars, Waste, Household appliances. (5 mins)

Ask for 5 volunteers (1 from each group)

Explain they are going to represent the world

1 person from each group puts towel/rug over world – says what effect their object has on earth.

When all the towels/rugs are on the world – we ask them how they feel - Answer = hot.

Then facilitator explains that that is how the world feels as it is getting hotter. In fact even if we reduced the amount of carbon we produce right now, it's going to take the world a long time

to cool down. It has a big effect on our climate – causing extreme weather conditions flooding, winds etc. As each towel comes off ask children what we could do to lessen the impact their object has on the earth .

Facilitators give some additional facts on the objects. Discuss who suffers from global warming. If you haven't done assembly presentation you can include images of flooding, polar bears.

Additional activity

Additional activity is the energy sheets
Allow 15-20 minutes to introduce the lifestyle contract.

Explain that much of the energy we produce is wasted.

Wasted energy/food/packaging, oil etc.

Our lifestyles affect the world. There are some things that it is hard for us to have control of but there are a lot of things we can do. Go into lifestyle contract for last 15-20 mins.



My World and Me

Cast:

Captain Kwickfix

The World

The People

Narrator (this can be split into several parts)

Equipment & Props:

PowerPoint Visuals (if possible, but the presentation can work without them)

2 x chairs

'Planet' T-Shirt or Hat

'People' T-shirt or Hat

Captain Kwickfix Costume

Magazines, cans, bottles, sunglasses for People

Recycled pencils etc for narrator.

Setting:

The stage, or floor space, is bare; the chairs are set up down stage centre at a distance of about three metres from each other. If possible, the characters should enter from behind a curtain or some corner where they can be effectively off-stage. The Narrator stands to the side of stage, at a podium if there is one - speaking into a microphone.

Image: Be The Change.

Explain to the students what is going to happen: the presentations, the workshops, the goal by the end of the day to get them to all sign up to the lifestyle contracts. Explain that we're going to talk about consumption – ask pupils if they know what that means. Using things up and buying more.

Image: The World

Narrator: We are going to tell you a story, an everyday tale of two little people struggling to get along in a hard old universe. Will you welcome please

The People (People enters takes a bow)

And the World (enters takes a bow)

Narrator:

Now (name of student) is playing The World.

Image: Beautiful world.

I want you to imagine him/her representing several million cubic kilometres of land, sea, mountains, rivers, forests, meadows, elephants, ants, tigers and several billion other living things that make up our "Environment"!



(name of student) is playing the People.

Image: People

Narrator: 6 Billion of us, human beings like you and me.

We're going to split the audience into two. This half of you are with World and this half with People.

(address the half with the world) When we talk about what's happening in the world (name of world) will look happy or sad. You've got to watch them carefully and see how they feel. So if I say "Saving Energy is good for the world" – all you lot are going to be doing the wave with World.

(address the half with the people) When we talk about what's happening with the people (name of people) will look happy or sad. You've got to watch them carefully and see how they feel. If I say "Driving cars wherever we want is good for people", then you lot are going to wave with "People."

So, now we know what we're doing and thinking about what is good for people or the world, let's go on.

World: Well I'd like to say something. People – human beings always get their voice heard but who cares about what the World feels? When do I get a voice.? – Did you know that human beings are consuming almost half the good things that /our world produces – the food, the trees, the animals.

Image: Population Growth.

And every day, there are about 80,000 more of them – 80,000 new babies!! That's good for the people – People wave. Not so good for me - the world (thumbs down).

Captain Kwikfix: (leaping out from behind the Curtain – or coming out from the corner) Hi! My name is Captain KwikFix and I have a solution to every problem. You can trust me!! Ha, ha! Now this population problem – very simple! Eat some people! World is short on food – long on people! Eat some people and bring the world and the people back into balance.

Narrator: Now – I think that is an absolutely HORRIBLE idea. What do you think? Any one here think that is a good idea?? Thought not – go back to your corner, Captain Kwikfix. We can't eat people, but we have to try and slow down population growth.

[Captain Kwikfix slinks back into the corner, muttering to himself]

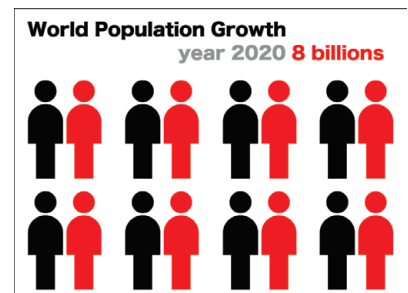


Image: Global Warming.

Narrator: Another one of the hardest problems between the world and people is to do with Global Warming.
Who knows what global warming is?

World: Yes - I can tell you I am getting hotter and hotter. It doesn't feel good. People don't care. Oh no, people keep polluting my air, drive around in cars, fly off on holiday, keep their houses toasty warm in winter and air-conditioned cool in summer. Good for those people who don't care – (People wave) but bad for me - our world! (Thumbs down)

[People put sunglasses on]

Narrator: But wait a minute! World might have the last laugh here. Do you know what happens when our world gets warmer? [Wait for answers!] – that's right!

Image: Floods.

The ice caps melt, the seas rise and flood our coastal towns; the climate changes – we get more hurricanes and tornadoes – and it becomes harder and harder for the people to find a safe place to live!

Image: Global warming oven.

World: That's not good for me - our world –(thumbs down)
And climate change will be really, really bad for the people! (Thumbs down)

[People take sunglasses off]

Captain Kwikfix: (leaping out) No, no! It's not a problem – We can fix this really simply! Magic Carpets!

Image: Magic Carpets.

Captain Kwikfix: Just give everyone a magic carpet – and they can fly round everywhere like Aladdin. No Pollution, no nasty fumes! Just the quickest, easiest way of traveling about the place. Really fun, too!

Narrator: Captain – Aladdin is a fairy tale! Magic carpets don't really fly! [Ask audience if they have ever seen a magic flying carpet] You are soooooo silly! (pause) If you can't come up with a serious idea just go back to your corner! We can't just bury our cars and stop using aeroplanes, we just have to find ways of getting about that doesn't cause pollution.

[Captain Kwikfix slinks back into the corner, muttering to himself]

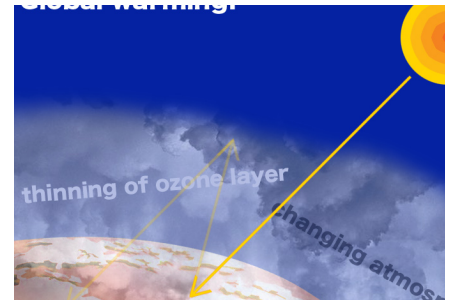


Image: Mother Earth

Narrator: Many people think of the earth as our Mother – we talk a lot about Mother Nature! But look how we treat our Mother Earth?!

Image: Landfill site.

Narrator: On average we throw away the equivalent of half a ton of rubbish per person per year here in the UK and they mostly end up in landfill sites – the places we dump our rubbish.

(During this People shoves magazine, plastic cups, cans etc at World.)

The richer we get, the more we consume and the more we throw away.
Fine for the people who don't care– (People wave).
Terrible for the world! (thumbs down)

Image: Landfill Map.

World: Look at this map. These dots are all landfill sites and there are more and more of them. Do you want all our land taken up by landfill sites? Speaking as the world I can tell you I am sick of them. They are not good for me and I hate them.

Captain Kwikfix: (leaping out) Excuse me?! May I?!

Narrator: (shouting) We've already heard your ideas.

Captain Kwikfix: Don't shout at me please – but I think we can fix this one really easily! Why throw this stuff away – why not melt it down or put it on the compost heap and use it again? That way, we could make some money out of it!

Narrator: Now that's not such a silly idea, Captain KwikFix! We are actually starting to do this – recycling our paper, our vegetable waste, our bottles and cans.... But we have to do a lot, lot more if the planet is going to wake up and be happy again!
(World starts to hand back recycled items to people)

Image: Reduce, reuse, recycle.

Narrator: We have to start Reducing the amount of waste we create, Reusing as many things as we can and Recycling wherever possible. We also have to do something called 'closing the loop' because it's no good making recycled things unless we actually buy them so we also have to start buying things like this recycled pen. (show pen and stuff)
See, it's made out of recycled paper, and we also have to make sure we use things like recycled paper at school. Something else we can recycle is clothes.

Image: Ethical Fashion.



How many of you have ever bought second-hand, or recycled clothes? You should try it some time? Much cheaper and it can be really cool! Get down to your local charity shop and see what they have! You can always take some of your things you don't need and not waste them by dumping them in the landfill. So recycled fashion?

Good for the people (People wave) and good for the world (world wave).

[People and World both happy. Captain Kwikfix smiles proudly from centre stage!]

Narrator: Thank you, Captain – now let's get on.

[Captain Kwikfix exits with a bow]

Another major problem for people is that they need to eat and the only source of food is My World! But over the years people have got greedy.

Image: Fruit.

People want the same fresh fruit and vegetables all the year round. They want it cheap and they want it now. To have what they want when they want. It's called choice and people think that's great. They think it's good for the people (People wave).



Image: Square watermelons.

World: Square watermelons. I ask you. People (indicate -) want to have everything to suit them. So if it's easier to pack square melons – that's what they want. They want the shiniest fruit – with not even the tiniest mark. Do you know how they get them to look so perfect? (ask)

Well I tell you. They spray me all over. Horrible chemicals. I hate them too. They're not even very good for People either. Why aren't chemicals good for you (ask People – ask audience)



Explain about water, fish, clean air.

Pollution. And the other thing is that in order to have fresh fruit and veg all the year round they end up flying or shipping it thousands of miles around to get what they want.

Image: Picture of airplane.

This causes more pollution. Is that good for me? (ask audience).....

That's right it's not good for me and
It's not good for the people. (Thumbs down)

[People and Planet feeling sick. Captain Kwikfix bounds back on – his eyes bright with an idea!]



Captain Kwikfix: Yes! Yes! I know how to fix this one too!! It's really easy! We learn to eat the earth!

Image: Mud pies.

Captain Kwikfix: Mud Pies! I remember them as a child – they were delicious! Plenty of mud everywhere. No one would need to starve.

Narrator: Sorry, sorry! – He's going mad again! But – somewhere in that muddled brain of his, there is the germ of a good idea.

Narrator: If people ate more vegetables grown in farms near where they live they wouldn't have to fly in so much food. The food would be fresher too. What we need is to produce food that is fair to the planet, and also fair to the consumer. But there is another thing– who produces our food?

Ask audience

The farmer, - in the UK, most Farmers get a fair wage. But in many of the world's poorest countries, farmers barely earn enough to eat and bring up their families.

Image: Fairtrade logo.

Narrator: Who knows what this sign says? (Ask what they know). Fairtrade means that the farmers who grow the crops get a fair deal. A fair day's work for a fair day's pay. Right now a lot of money goes to the large companies who want to have cheaper and cheaper food for their customers. So how is the farmer supposed to live and to take care of the earth and the environment?

Captain Kwikfix: Lock up the Greedy Fat Cats and throw away the key. Get 'em out the way and let the farmer get a decent wage!

Image: Fairtrade farmers.

Narrator: Well, we don't have to be that extreme, Captain! We just have to persuade them that shoppers care about how farmers and workers are treated and make sure that people start to buy "FAIRTRADE"

Ask audience: Do you know what kind of products you can buy that are Fairtrade?

Well by buying these goods you will be helping both the people and the earth/the environment, because the farmers will be able to take care of the earth better. So people and World are both happy. (Thumbs up for both)



Narrator: Now everything we have been talking about is how to live more sustainably. So that People and the world are working together. This idea of being “sustainable” is quite complicated, but if you sustain something it continues. So we think the easiest way to explain it is “Some for All Forever.”

Image: Some For All Forever.

Narrator: “SOME – FOR ALL – FOREVER!” – say it with me: “SOME – FOR ALL – FOR EVER!” It means some things, for everyone, forever.

Image: Pie chart.

World: Speaking as an outsider it looks more like lots for some of you and don’t worry about the rest. You people just don’t know how to share.

Narrator: That’s probably quite true. Now, if we are to live sustainably we need to think about 3 things.

1) We have to think about keeping the World happy. That’s nature and the environment, that needs to be looked after.

2) We need to think about People, we need to keep society happy, they need jobs, houses and food. But there’s a third thing...

Enter Captain Kwikfix with money sign.

Yes, that’s right, Captain Kwikfix. It’s money; we all need money to do things. Now – as we have learned from Captain KwikFix – there are no quick fixes to all the problems our planet faces –so we have to think about how our actions affect

The environment and nature,
 People and society so there’s enough for everyone,
 And money, so we have the enough to do the things we want. We need to think about all 3, whether we are at work, at school, or at home.

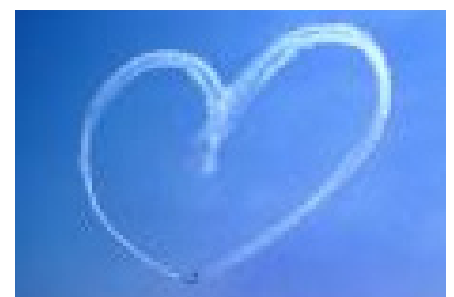
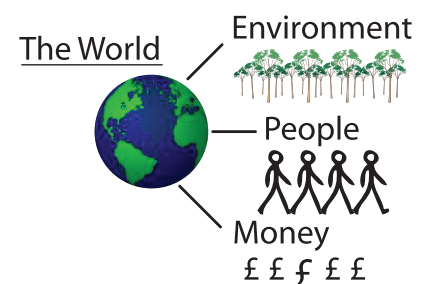
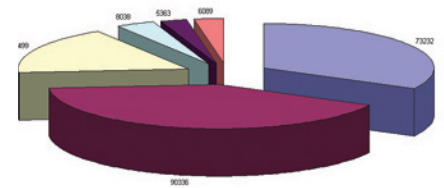
SLIDE NEEDED HERE

- Environment/Nature
- People /Society
- Money - economy

We’ve only got one world and that is why we are are going to work together to prepare our own Lifestyle Contracts so we can live in a way that is more sustainable, so that

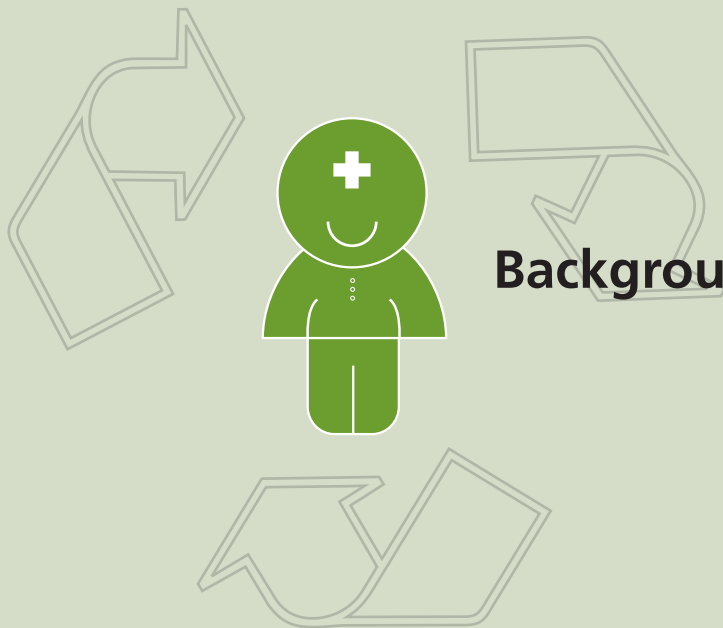
Image: heart.

Narrator: My World and Me can live in harmony.



[During this speech People and Planet hug each other]

Captain Kwikfix: See, See!! That's the best fix of all – making the planet love the people as much as the people love the planet. Thank you! Thank you very much!



Background and general information



25TH
ANNIVERSARY
-EMPOWERING YOUNG PEOPLE-

PEACE CHILD INTERNATIONAL

About Peace Child International

Who we are

Peace Child is a world wide network of 700 youth groups, schools and individuals in 155 countries who reach many millions of young people.

Headquartered near Cambridge, England, Peace Child is run by two adult professional managers (Rosey Simonds and David Woollcombe) and a team of 7-10 young volunteers aged 18-25 from all over the world.

How did it all start

Peace Child was founded in 1981 to promote a musical play of the same name that educates young people about the nature of conflicts and how to resolve them.

In the 1980s, we focused on bringing together Soviet and American children in efforts to end the Cold War between their countries. With performances in the Royal Albert Hall, London and the Kennedy Centre in Washington DC, Peace Child's activities were high profile. In 1986, we brought the first Soviet children to the USA on a youth exchange, along with the first Soviet rock group ever to tour North America.

Empowerment was always at the heart of our activities. Every cast that performed the Peace Child play was invited to re-write the script imagining themselves to be the children of the story. The play has no named characters so cast members use their own names. This way, they stand on stage, acting out how they change the world through their own courage and imagination – a powerful experience for a young person.

There were also programmes based on the musical play in the Middle East, Central America, Northern Ireland, Cyprus, Armenia, and Azerbaijan

What do we do

Our mission is to empower young people. To build young people's confidence and self-esteem by expanding the number of opportunities available to them to contribute in global debate and action on critical world challenges.

Peace Child encourages young people to learn about, then take action on, issues related to peace and conflict resolution, human rights, and sustainable development.

In the 1990s, we began publishing books, inviting children around the world to contribute stories and artwork. Each book is prepared in a similar way: Peace Child creates a workbook on the topic the book is going to be about. Teachers and students in our partner groups use the work books to create their own stories and paintings. From the groups that send in the best contributions, we select editors to come to a first editorial meeting where a rough draft is produced. This is sent to all contributors – and a team of adult experts. Their comments and additional contributions are fed into a Final Editorial Meeting where young people assemble the finished book and send it to the printers.

Peace Child has now made 12 books in this way, each one an ideal introduction for young people by young people on complex global issues.



25TH
ANNIVERSARY
-EMPOWERING YOUNG PEOPLE-

PEACE CHILD INTERNATIONAL



BETHECHANGE!
Youth Solutions for the New Millenium

Facts about Peace Child that ambassadors should know

- Peace Child is a youth-led organisation. The majority of the staff are young people under 25 who are responsible for the planning and implementation of projects.
- Peace Child runs a series of World Youth Congresses on the role for young people in the effort to achieve sustainable development and the Millennium Development Goals (MDGs – see below) The first of these was in Hawaii in 1999, the Millennium Young People's Congress (MYPC) which mandated the setting up of the Be the Change! youth-led sustainable development action projects. There have been two other congresses in Morocco (2003), and Scotland (2005). The next will be in Quebec, Canada (2008). These congresses are unique because their content is all decided by young people.
- Be the Change! is one of Peace Child's core programmes at the moment. We have four Field Offices – in India, Kenya, Peru, and Sierra Leone. Working through these Field Offices, we are able to hook-up schools in the UK with groups of young people living in the very poorest conditions – and help them to host live chats over the internet – and raise funds for simple projects that they want to accomplish.
- Peace Child believes that youth are a resource, not a problem. This was the slogan for the Youth Caucus at the Johannesburg World Summit on Sustainable Development.
- We also believe that 5% of overseas development aid should go to projects designed and executed by that 50% of the world's population that is under 25. Youth-led projects cost a fraction of adult-led ones – so if we could get more young people in the world's Least Developed Countries to be funded to do community improvement projects – the MDGs could be achieved at a much lower cost.
- With half the world's population being under 25, it is essential that young people be engaged in sustainable development. As an Ambassador, you should spread the message that young people do not have to sit around until their 18th birthdays to become effective citizens. They can contribute effectively right now to solving society's problems.
- At the end of every presentation, you should encourage other young people to become Ambassadors or adopt Be the Change! projects – or DO SOMETHING! Enable them to feel their power and make their contribution! That is why we are encouraging children to do the lifestyle contract. To start being sustainable at home as well as school. We hope that by doing the same action for a month, people will continue to turn off lights/turn off standby or whatever pledge they have made.

The Millennium Development Goals

Our mission is to support the United Nations and its member states to mobilise young people to help the effort to achieve the MDGs by 2015. The goals are:

- 1 Halving the number of people who live in extreme poverty on less than \$1 a day;**
- 2 Ensuring that all boys and girls get a primary education.**
- 3 Promoting gender equality and empowering women.**
- 4 Reducing by 2/3 the number of children who die before their 5th birthdays.**
- 5 Halving the number of women who die during childbirth.**
- 6 Halting and reversing the spread of HIV/Aids, malaria and other diseases.**
- 7 Ensuring environmental sustainability.**
- 8 Making global partnerships for sustainable development – ending third world debt, creating jobs for young people, and protecting the environment.**

Background Information

What is Sustainable Development?

Definition: The universally accepted United Nations definition of sustainable development is: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

How are economy, environment and society related? Three pillars

Sustainable development recognises the interdependence of environmental, social and economic systems and promotes equality and justice through people empowerment and a sense of global citizenship.

There are many, many ways that these are related. One example is jobs. Most people think of jobs as just part of the economy. True - the economy does provide the jobs in a community. But society - the people - provides the labor force to do these jobs. So, in this way, society and economy are interdependent. Neither the economy nor the jobs can exist without people.

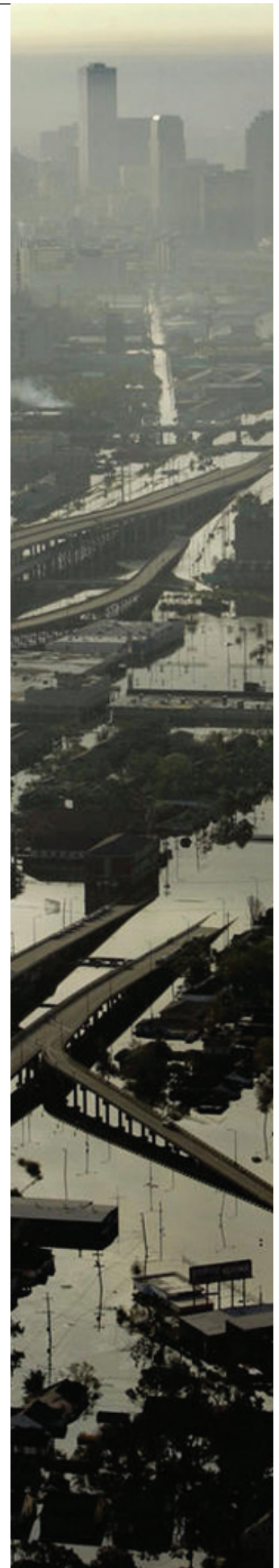
Also, there would be no jobs without people to buy the goods or services that the jobs produce. Raw materials for all products come from the environment; so does the land that the people live on and the water they drink, and the air they breathe. If the environment deteriorates, society suffers; people get sick, cannot go to work. They spend less on goods and services, so the economy suffers and this makes society to suffer even more.

What is global warming?

Global warming is the increase in annual average temperature of the entire planet. Greenhouse gases are gases like Carbon dioxide (CO₂) which exist in our atmosphere. They trap heat from the sun that is normally reflected back into space from the Earth's surface. By doing this, they act like the glass panels in a greenhouse, which let warmth in and keep it inside. This is a natural process, and without it the world would be a lot colder. Global warming is happening because, as recent studies show, the build up of greenhouse gases is happening faster. It is as though the glass in the greenhouse has gotten thicker and thus the earth has become warmer in the last 50 years than at any time before in history.

Global Warming occurs as a result of the burning of fossil fuels, which release a great deal of carbon dioxide into the air. This has been a result of industry and increased burning of fossil fuels for electricity and petrol.

The vast majority of scientist agree that the globe is warming , that this is occurring as a result of human activities and **not** a natural occurrence, and that far from being a problem of the future, global warming is already happening.



What are fossil fuels?

Coal, oil and gas are called fossil fuels because they were created over millions of years through the decay, burial and compaction of rotting vegetation on land (coal), and marine organisms on the sea floor (oil and gas).

Fossil fuels are burned in conventional power stations to produce electricity and direct power. People are concerned about fossil fuels because burning them to make energy creates pollution and releases a lot of Carbon Dioxide into the atmosphere, and also because we are running out of them. Fossil fuels can not be recycled and do not regenerate. Once we use them up, they are gone.

Sustainable energy sources or renewable energy

The basic idea is that alternatives rely on sources of energy which can constantly be replenished unlike fossil fuels which cannot be replaced and will run out eventually. For example:

Solar power

solar panels, photovoltaic cells etc.

Wind power

windmills – both on hillsides and in the sea(offshore)

Tidal power

barrages across bays which use the rise and fall of tides to drive the turbines – like in a hydroelectric scheme;

Wave energy

'nodding ducks' that rest on the sea and nod back and forth with the waves turning small generators that create electricity;

Geothermal energy

geysers and hot springs are only the most visible sources of heat from the earth. Warmth from the earth's crust can be used for heating and, in some cases, generating electricity.

Hydro Electric Power

rivers fall several thousand feet to the sea. If you put a dam across a river, that water can flow at great speed down a pipe and drive a turbine to generate electricity.

Bio fuels

rotting cow manure produces methane gas which can fuel small stoves. In India, there are so many tons of cow manure, it is possible that half the economy could be driven on bio fuels.



Glossary

Acid rain

Rain that contains strong mineral acids caused by industrial pollutants in the atmosphere such as sulphur dioxide and nitrogen oxides, extremely toxic and harmful to plant and animal life.

Air pollution

Toxic or radioactive gases or substances that become part of the atmosphere, usually as a result of human activity.

Alternative Energy

Energy that does not use fossil fuels or contributes as much to global warming. It is generally more environmentally sound, such as solar, wind, and water energy.

Alternative fibres

Material produced from non-wood sources for use in papermaking.

Alternative fuels

Fuels for transportation other than gasoline or diesel. Includes natural gas, methanol, and electricity.

Alternative transportation

Modes of travel other than private cars, such as walking, bicycling, rollerblading, carpooling and public transit.

Ancient forest

A forest that is older than 200 years with large trees, dense canopies and an abundance of diverse wildlife.

Aquifer

An underground source of water.

Atmosphere

The 500 km thick layer of air surrounding the earth which supports the existence of all plant life, which in turn supports all animal and human life.

Biodegradable

Waste material composed primarily of natural parts. It can be broken down and absorbed into the ecosystem. For example: wood is biodegradable, plastics are not.

Biodiversity

A large number and wide range of species of animals, plants, fungi, and microorganisms.

By-product

Something produced in the making of something else. A secondary result; a side effect.

Carbon dioxide (CO₂)

A naturally occurring greenhouse gas in the atmosphere. Some CO₂ is necessary, but too much of it pollutes the atmosphere and contributes to global warming. Before the industrial revolution, the air contained 280 parts per million, and today it is over 350 parts per million. This happened as a result of humans' burning of coal, oil, natural gas and firewood.

Clean fuel

Fuels which have lower emissions (less CO₂) than conventional gasoline and diesel. Alternative fuels as well as to reformulated gasoline and diesel.

Clearcutting

A logging technique in which all trees are removed from a forest

area, with little regard for forest health, or long term harvest potential.

Climate change

A regional change in temperature and weather patterns. Current science indicates a link between climate change over the last century and human activity, specifically the burning of fossil fuels.

Compact fluorescents

Florescent light bulbs small enough to fit into standard light sockets, which use much less energy than standard incandescent bulbs.

Compost

A process whereby organic wastes, including fruit, vegetables, and garden clippings decompose naturally, resulting in a product rich in minerals and ideal for gardening and farming.

Consumption

The using up of goods and services by consumer buying or by producing other goods.

Development

A tract of land not in its natural state, usually with houses or structures. The act of creating these structures from land.

Diesel

A petroleum-based fuel, which is burned in engines, ignited by compression rather than spark. It is commonly used for heavy-duty engines including buses and trucks.

Dioxin

A man-made chemical by-product formed during the manufacturing and burning of other chemicals. Studies show that dioxin is the most potent animal carcinogen ever tested, as well as the cause of severe weight loss, liver problems, kidney problems, birth defects, and death.

Dump sites

Waste disposal grounds.

Ecologist

A scientist who studies the relationship of plants and animals and their environment.

Ecology

A branch of science concerned with the relationship of plants and animals and their environment.

Economy

The system or range of money and resources in a country, region, or community. Careful, thrifty management of resources, such as money, materials, or labour.

Ecosystem

An interconnected and mutually beneficial grouping of animals, plants, fungi, and microorganisms.

Endangered species

Species in danger of extinction throughout all or a significant part of its range.

Energy conservation

Using energy efficiently or prudently; saving energy.

Energy efficiency

Technologies and measures that reduce the amount of electricity and/or fuel required to do the

same work, such as powering homes, offices and industries.

Environment

The circumstances or conditions that surround you. The totality of circumstances surrounding an organism or group of organisms. The combination of external physical conditions that affect and influence the growth, development, and survival of organisms.

Evaluation

To examine and judge carefully; appraise.

Fairtrade

A commercial agreement where distributors sell products of a given type at no less than a minimum price given to the manufacturer.

Forests

Lands on which trees are the principal plant life, usually conducive to wide Bio diversity.

Fossil fuel

A fuel, such as coal, oil, and natural gas, produced by the decomposition of ancient (fossilised) plants and animals.

Free trade

Trade between nations without protective customs tariffs, where the buyer is free to set whatever price the market dictates, no matter how small.

Geothermal

Literally, heat from the earth. Energy obtained from the hot areas under the surface of the earth, sometimes natural hot springs or naturally heated water.

Global warming

Increase in the average temperature of the earth's surface.

Grassroots

Local or person-to-person. A grassroots campaign or movement is one which comes directly from the people affected by the problem, attempting to create a solution for themselves.

Green design

A design, which conforms to environmentally sound principles of building, material and energy use. A green building, for example, might make use of solar panels, skylights, and recycled building materials.

Greenhouse effect

The process that raises the temperature of air in the lower atmosphere due to heat trapped by greenhouse gases.

Greenhouse gas

A gas involved in the greenhouse effect, such as carbon dioxide, nitrous oxide, methane, chlorofluorocarbons, ozone.

Greenhouse

A building made with translucent (light transparent, usually glass or fibreglass) walls, meant to give as much light as possible and conducive to plant growth.

Greenway

Undeveloped land usually in cities, set aside or used for recreation or conservation.

Growth overfishing

The process of catching fish before they are fully grown and have had a chance to reproduce, resulting

in a decrease in the average size of the fish population.

Habitat

The natural home of an animal or plant.

Human rights

The basic rights and freedoms, to which all humans are entitled, often held to include the right to life and liberty, freedom of thought and expression, and equality before the law.

Hydro

To do with water.

Hydroelectric

Electric energy produced by moving water.

Hydropower

Energy or power produced by moving water.

Industrialised countries

Nations whose economies are based on industrial production and the conversion of raw materials into products and services, mainly with the use of machinery and artificial energy (fossil fuels and nuclear fission). Generally located in the northern and western hemispheres (North America, Japan, Europe).

Insecticides

Substances used to kill insects and prevent infestation.

Inter-connected

To be connected with each other, rely on each other in some way.

Inter-dependence

To be dependent on each other, one can not survive as well without the other.

Landfills

Disposal areas where garbage is piled up and eventually covered with topsoil.

Less developed country

Previously called, 'third world nations'. They comprise all regions of Africa, Asia (excluding Japan and Singapore), Latin America and the Caribbean, plus Melanesia, Micronesia and Polynesia.

Litter

Waste material, which is discarded on the ground or otherwise disposed of improperly or thoughtlessly.

Logging

Cutting down trees for commodity use.

Lumber

Wood or wood products used for construction.

Managed growth

Growth or expansion that is controlled so as not to be harmful.

Mining

The removal of minerals (like coal, gold, or silver) from the ground.

More developed country

Previously called 'first world nations'. They comprise all regions of Europe plus Northern America, Australia/New Zealand and Japan.

Nitrogen oxides

Harmful gases (which contribute to acid rain and global warming) emitted as a by-product of fossil fuel combustion.

Oil

A black, sticky substance used to produce fuel (petroleum) and

materials (plastics).

Organic

Involving the use of fertilisers or pesticides that are strictly of animal or vegetable origin. Raised or conducted without the use of drugs, hormones, or synthetic chemicals. A substance, especially a fertiliser or pesticide, of animal or vegetable origin.

Over-fishing

Fishing beyond the capacity of a population to replace itself through natural reproduction.

Over-grazing

Grazing livestock to the point of damage to the land.

Ozone

A naturally occurring, highly reactive gas made of atomic oxygen formed in the presence of ultraviolet radiation. This naturally occurring gas builds up in the lower atmosphere as smog pollution, while in the upper atmosphere it forms a protective layer which shields the earth and its inhabitants from excessive exposure to damaging ultraviolet radiation.

Ozone depletion

The reduction of the protective layer of ozone in the upper atmosphere by chemical pollution.

Ozone hole

A hole or gap in the protective layer of ozone in the upper atmosphere, exposing the planet to the harmful ultraviolet rays of the sun.

Pesticides

Chemical agents used to destroy pests.

Plastics

Durable and flexible synthetic-based products, some of which are difficult to recycle and pose problems with toxic properties, especially PVC plastic.

Pollution

The contamination of soil, water, or the atmosphere by the discharge of harmful substances.

Population

The total number of people inhabiting a certain area.

Poverty

The state of being poor; lack of the means of providing basic material needs or comforts.

Power plants

Facilities (plants) that produce energy.

Public transportation

Various forms of shared-ride services, including buses, vans, trolleys, and subways, which are intended for transporting the public.

Pulp

Raw material made from trees used in producing paper products.

Rainforest

A large, dense forest in a hot, humid region (tropical or subtropical). Rainforests have an abundance of diverse plant and animal life, much of which is still unrecorded by the scientific community.

Recycle

System of collecting, sorting, and reprocessing old material into usable raw materials.

Reduce

Act of purchasing or consuming less to begin with, so as not to have to waste, reuse or recycle later.

Renewable energy

Energy resources such as wind power or solar energy that can keep producing indefinitely without being depleted.

Reservoir

An artificial lake created and used for the storage of water.

Resource

Something that can be used for support or help. An available supply that can be drawn on when needed.

Resources

Available for economic and political development or to a company for increasing production or profit. Includes plant, labour, and raw material.

Reuse

Cleaning and/or refurbishing an old product to be used again.

Salvage logging

The logging of dead or diseased trees in order to improve overall forest health; used by timber companies as a rationalisation to log otherwise protected areas.

Sea level

The level of the ocean's surface, especially the level halfway between mean high and low tide, used as a standard in reckoning land elevation or sea depths.

Second-growth forests

Forests that have grown back after being logged.

Smog

A dense, discoloured radiation fog containing large quantities of soot, ash, and gaseous pollutants such as sulphur dioxide and carbon dioxide, responsible for human respiratory ailments.

Society

The total of social relationships among humans. A group of humans broadly distinguished from other groups by mutual interests, participation in characteristic relationships, shared institutions, and a common culture.

Solar energy

Energy derived from sunlight.

Solid waste

Non-liquid, non-gaseous category of waste from non-toxic household and commercial sources.

Surface water

Water located above ground (e.g., rivers, lakes).

Sustainable communities

Communities capable of maintaining their present levels of growth without damaging effects.

Sustainable

Capable of being continued with minimal long-term effect on the environment.

Tap water

Drinking water monitored and often filtered for protection against contamination, available for public consumption from sources within the home.

Timber

Logged wood sold as a commodity.

Transportation

Any means of conveying goods and people.

Urban planning

The science of managing and directing city growth.

Utilities

Companies (usually power distributors) permitted by a government agency to provide important public services (such as energy or water) to a region.

Utilities are provided with a local monopoly, so their prices are regulated by a government agency.

Water quality

The level of purity of water; the safety or purity of drinking water.

Well

A dug or drilled hole used to get water from the earth.

Wetland

Land (marshes or swamps) saturated with water constantly or recurrently. Allows for wide Bio diversity.

Wilderness

Land remaining in basically wild or undisturbed condition, with few if any traces of human activities.

Wildlife refuges

Land set aside to protect certain species of fish or wildlife.

Wildlife

Animals living in the wilderness without human intervention.

Wind power

Power or energy derived from the wind.

Zero emission vehicles

Vehicles (usually powered by

electricity) with no direct emissions from tailpipes or fuel evaporation.

Zoning

The arrangement of land areas for various types of usage in cities, boroughs or town.