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FOREWORD BY BRIAN ENO

Scientists now think there may be at least 20 sextillion (20,000,000,000,000,000,000,000) planets something like ours in the Universe. However, despite centuries of human observation of the heavens, the particular planet that we live on seems to be the only place where there actually is life in this unthinkably vast Universe. All the dazzling variety that we know about – from amoebas to antelopes, from zorillas to zebras – appears to be unique to this single planet.

But the last few years have been challenging ones for our planet. You all know the story: there's a swamp of plastic in the oceans, air pollution is reaching higher and higher levels and whole species are disappearing every day. Climate change is changing lives and habitats across the globe.

This growing crisis sometimes seems unstoppable, but there is some good news. We've seen some remarkable people standing up and taking action to save this beautiful Earth, and there are now millions of citizens of all ages putting their energy and time into trying to tame the crisis.

One of the most effective of these groups is the charity ClientEarth, a coalition of lawyers, scientists, researchers and others who have decided to work for the planet. I've been involved with ClientEarth for more than ten years and have seen first-hand how it uses the power of law to bring about a lasting difference.



'Using the Power of Law' means, for example, helping governments write laws that will encourage better practices of land use, waste disposal and energy production. It also means enforcing existing laws – often by taking to court governments or other organizations who are behaving irresponsibly. From tackling air pollution to protecting forests, oceans and wildlife, the law is a powerful tool in the battle to protect our environment. You can think of the people who work at ClientEarth as legal Guardians of the Planet. And now, by reading this book, you can become a Guardian, too.

Becoming a Guardian of the Planet sounds daunting, but together we can meet the challenge. By joining with other Guardians – in your local school, your friends and family, or connecting with groups across the world – you have incredible power to make a difference.

The future of the planet is in all our hands. By taking just a few of the actions in this book, you will be part of creating a better world for everyone, now and in the future. I'm delighted to join together with you, fellow Guardians of the Planet, and make a stand to protect our wonderful wildlife, clean up the air and make the changes that will ensure our planet and all the incredible forms of life on it thrive.







INTRODUCTION:

GUARDIANS OF THE PLANET

The Earth has existed for over 4,500 million years. Despite being bombarded by asteroids, trampled underfoot by dinosaurs and suffering planet-wide ice ages, it has endured and flourished. But now Earth is in trouble and Guardians of the Planet are needed ... URGENTLY.

This book is packed with tips and projects to help make our planet greener, safer and more sustainable. One person alone cannot save the planet. But there are hundreds of things you can do at home, at school and in your local community that can make a HUGE difference.

By the time you turn the final page, you will have all the skills and knowledge you need to be a fully-fledged Guardian of the Planet. Spread the word and encourage family, friends, neighbours and classmates to do their bit, too. If we work together, we can make a vital contribution and help to look after the incredible world that we call home.



CHAPTER 1

HOME HERO

There's no place like home, but it's also one of the main places where stuff is wasted. This makes your home the perfect place to get stuck in and begin your Guardian training.

By 2025, the World Bank estimates that humans will be producing 6 million tonnes of waste per day. To clean this up, we'd need a line of rubbish trucks 5,000 Km in length. That's as long as the country of China is wide.

WASTE AROUND THE WORLD

People living in wealthy, developed nations consume and throw away an awful lot. Each person in the US, for example, chucks out an average of 2 kilograms of rubbish per day. That means a family of five throw 3.6 tonnes of rubbish out a year. People in other parts of the world waste less. In Colombia, the figure is 950 grams per day while in Ghana it's just 90 grams.

WHAT A WASTE!

Waste is a really good name for rubbish as it represents the waste of resources that were originally used to make the objects. Waste also uses resources when it's disposed of, including thousands of rubbish trucks worldwide. Combined, they burn millions of litres of polluting fuels each year.

WHERE DOES IT ALL GO?

Most waste is either burned or buried.

- Burning occurs in machines called incinerators. It can reduce the space that waste takes up by 90%. However, polluting gases, including sulphur dioxide and nitrous oxide, and toxic chemicals may all enter the air as a result.
- Thousands of tonnes of waste are illegally dumped. This can harm wildlife and it costs a fortune to clean up.
- Millions of tonnes of waste are buried in giant holes called landfills. There are half a million of these in Europe alone. Toxic chemicals in many landfills cause soil and water pollution. Greenhouse gases such as methane are also released as the rubbish decays.

REPAIR AND REPURPOSE

Before your waste hits the bin, ask yourself the BIG question: can it be reused in some way or repaired? Finding creative ways to revamp your trash is not only good for the planet – it can be fun, too. Here are some handy ideas to get you started.

OPEN A REPAIR CAFÉ

In the past, people 'made do and mended' rather than buying new – so why not revive some of these skills? Repair Cafés have become popular since they started in the Netherlands in 2009. People get together to fix clothes, bikes, computers and other items, as well as learn and share skills. You can look at the Repair Café website to see if there is one near you. Or you could set up your own version with some friends, snacks and an invited guest – an adult handyperson who's skilled at fixing certain things and can show you how.

Christmas and birthdays can be incredibly wasteful times of year. Open presents carefully so you can reuse the wrapping paper another time. You could also make your own gift tags from old greetings cards.

SEW EASY

It's tempting to throw away clothing because it's ripped or needs alterations. But remember that many clothing repairs are quick and easy with a bit of know-how, and can save money.

- Missing buttons or broken poppers can be replaced.
- A torn seam in your favourite T-shirt can be sewn up easily.
- Outgrown trousers may have enough cloth in the hem to be made longer.
- Why not cover a small tear or stain with a badge or patch?
- Ripped jeans can be converted into shorts.

REPURPOSING AND UPCYCLING

Repurposing is when you reuse an object for a different task. Jam jars, for instance, make handy storage for craft materials and empty lip-balm pots can make great containers for travel toiletries. You could also have a go at 'upcycling' to turn old, unwanted objects into new, cool items.

- Paint or decorate old cereal boxes, then cut out the top third of the narrow side to make a perfect paper or magazine holder.
- Crisp packets can take over 80 years to decompose. Save up a load, turn them inside out and wipe clean – then use them to create foil paper chains for a party.
- Paint empty coffee tins in bright colours so they can be used as plant pots to spruce up the garden or windowsill.

If you can't find a use for something, donate don't discard! You may not be able to reuse an object, but that doesn't mean someone else can't. Check in your local area for organizations which take in items such as clothing, shoes, bikes, computers and phones.

CHAPTER 3

FOOD-WASTE FIGHTER

The saying goes that 'you are what you eat'. One thing's for certain – whatever you eat, your diet has some effect on the planet. Some foods and ways of farming, though, have a greater impact than others.



LOTS OF LAND

Land may seem endless but it covers less than 30% of the planet. About a tenth of this is made up of icy glaciers and another fifth, such as mountain tops and deserts, cannot support crops. Of all the land that remains, half is used for farming.



More than three times as much land is used for farm animals as for growing crops.



Cows, sheep and other farm animals create almost 15% of all the climate-changing gases generated by human activity (see page 30).

INTENSIVE FARMING

People's demand for food has seen farming change. Intensive farming uses giant fields and lots of chemicals to produce greater amounts of crops. As a result, areas of woodland and hedgerows, which once divided fields and provided homes for wildlife, have been destroyed, reducing biodiversity.



POISONOUS PESTICIDES

Pesticides are chemicals sprayed on crops which kill weeds or on insects that eat crops. Many of the poisonous substances they contain remain in the soil or are washed into rivers. These chemicals can build up in food chains (see page 13), harming lots of different animals.

A 2019 study by Greenpeace found 100 different pesticides in small rivers and canals across Europe.

NATURAL HELPERS

Organic farmers use methods with less environmental impact, such as encouraging ladybirds in their fields to eat pests instead of using pesticides. They may also sow 'companion' plants beside their fields, such as mustard whose bright flowers attract insects away from crops. Organic farming creates less pollution but smaller harvests, so the food is often more expensive.

