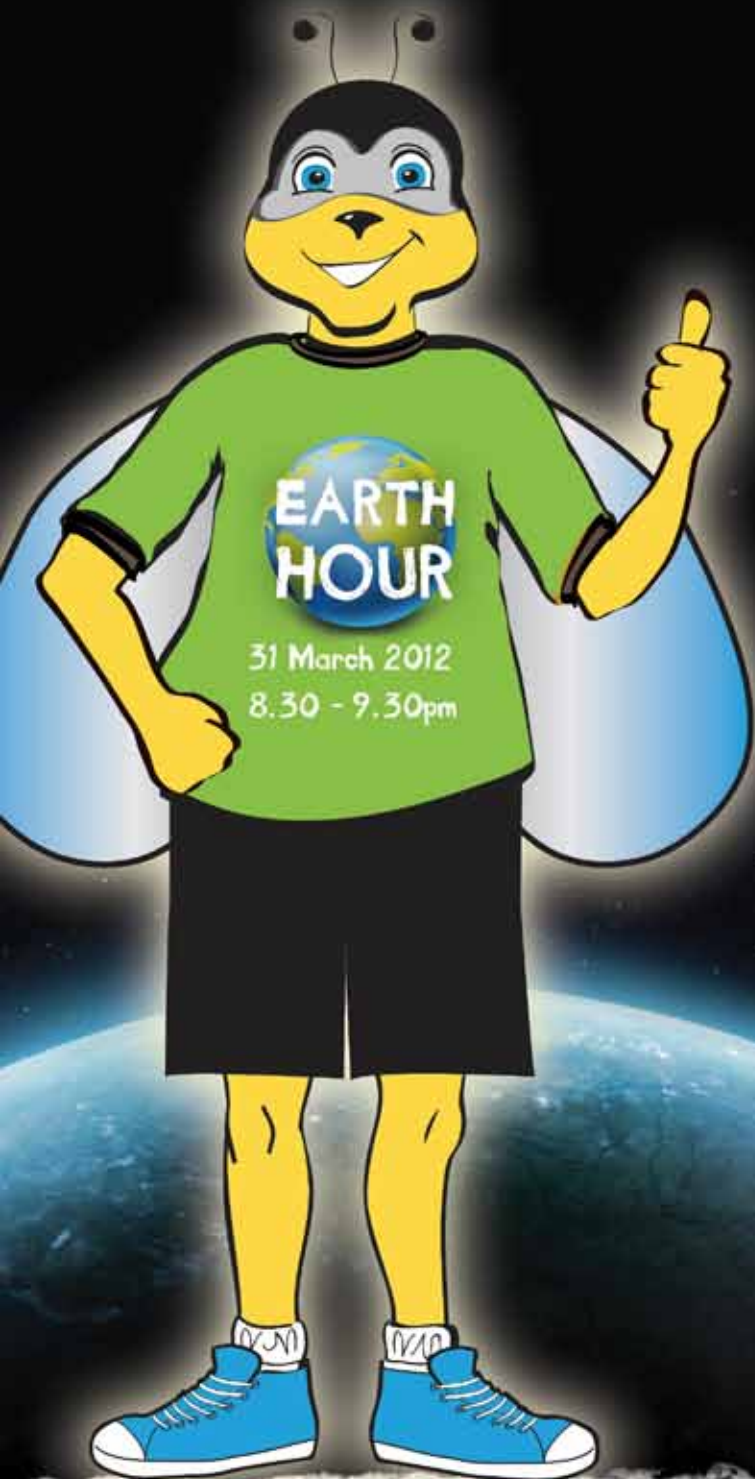




EARTH HOUR & HOLIDAY FUN

ISSUE 50 - MARCH 2012



Tēnā koutou e hoa ma

Hello pollution busters! We hope you had lots of fun over the summer and learned heaps about water and water pollution in our last issue.

Thanks for all the entries in the competition; it was great to see that so many of you remembered all the information from last year's issues. Check out the winners on the club page.

Coming up at the end of March we have Earth Hour which is why we are sending you this issue earlier than normal. It will be great if we could all participate in this event to help our planet, all the information on how you can get involved is on pages two and three.

There are also lots of fun activities and crafts in this issue and our competition is on page six.

BuzzBOP loves getting all your mail and emails about the things you are doing out in the environment so please keep sending them in!

We hope you enjoy the rest of the school term and have a great holiday break.

"Kia u, kia ngakaunui ki nga mahi pai" Be steadfast and conscientious in all your good work.

From BuzzBOP and the team at Bay of Plenty Regional Council.



When: Saturday 31 March
8-30pm – 9.30pm (or later!)

Who: Everyone!

Where: Everywhere!



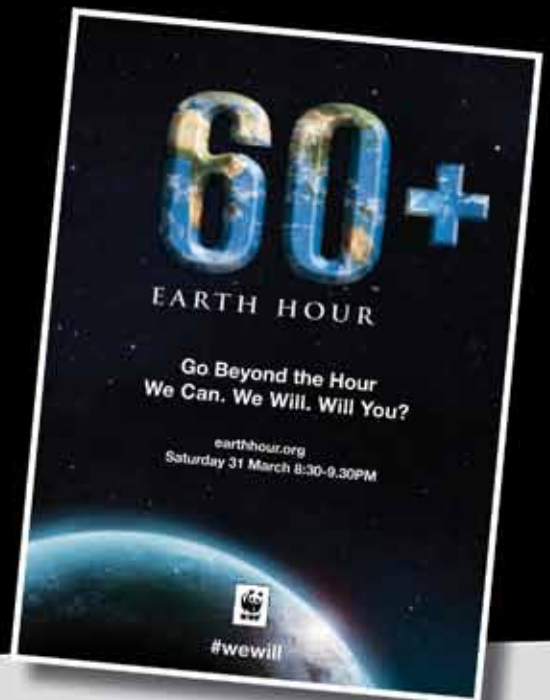
www.earthhour.org
www.wwf.org.nz

What is Earth Hour?

Earth Hour is the largest environmental event in the world. It's when, for one hour, hundreds of millions of people all around the world save energy to help protect the planet. Electricity can be made in sustainable ways like wind farms and hydropower stations but it is often made by burning coal, oil or gas. Burning non-renewable fuels like these produces harmful greenhouse gases that cause climate change.

During Earth Hour people switch off their lights, computers, televisions and other items that use electricity to send a message about taking action for climate change. It is also a great way to get people talking about the things we can do to reduce our impact on the earth and how important it is to do something now.

Global warming is the greatest threat facing our planet today. Climate change has already started, but it's not too late to take action. There's still time for us all to be part of the solution.

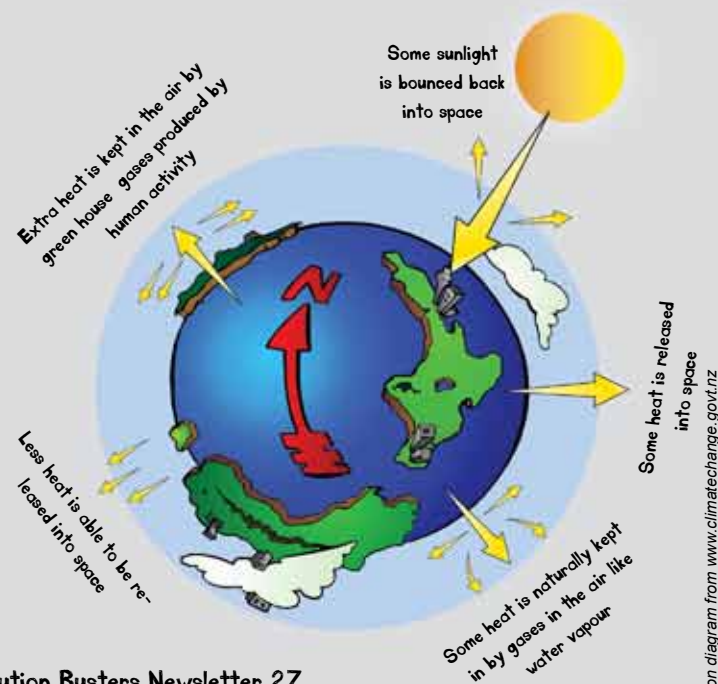


What is climate change?

Climate change is a big and lasting change in the weather patterns and the earth's temperature over time. The warmer temperatures are causing lots of other changes around the world, like melting glaciers, floods, droughts and stronger storms. These changes are happening because the air, water, and land are all linked to the climate of the Earth.

What causes climate change?

Peoples' activities, like driving cars, can pollute the environment, for example air pollution (we learnt about that last year in issue 46), fires, and cutting down forests produce greenhouse gases. The more greenhouse gases people create, the faster the world's climate heats up. The greenhouse gases from peoples' activities gather in the atmosphere, wrap around the earth and trap the sun's heat.



If you want to know more about climate change see Pollution Busters Newsletter 27
<http://www.boprc.govt.nz/residents/kids/newsletters> or
<http://www.climatechange.govt.nz>

Things you can do for Earth Hour

Take action! Try some of the following things to save energy, reduce your impact on the environment, and help spread the word about Earth issues like climate change. Don't wait for Earth Hour – you can start now!

- **Tell others** - Get your school or community group to include Earth Hour information in their newsletter.
- **Invite your friends over** - You can help spread Earth Hour awareness by inviting your friends, family or neighbours to join you for Earth Hour.
- **Make a lantern** (see page 4 for instructions)
- **Fill up your freezer** - Did you know that an empty freezer uses up more energy than a full one? If you have empty space in your freezer, you can conserve energy - and reduce your power bill – Fill empty containers like milk, or plastic bottles two thirds full of water and freeze. Once frozen the ice will help keep the temperature in the freezer and use less energy. This could also be a good way to store some water for an emergency (see [www.boprc.govt.nz/residents/kids/newsletters/issue 43 - Bee prepared](http://www.boprc.govt.nz/residents/kids/newsletters/issue%2043-%20Bee%20prepared)).
- **Turn off the computer** - Make sure you turn off the computer when it's not being used; it still uses power on standby.
- **Keep the fridge closed** - Decide what you want to eat before opening the fridge, don't just stand there with the door open!
- **Unplug** all unnecessary appliances, lamps, nightlights and mobile phone chargers - After Earth Hour only plug them back in when you need to use them – some things could stay unplugged for a long time!
- **Try not to use a vehicle** – Give the air a break!
- **Turn off the TV** - Get out a book or play a game outside.
- **Turn off the lights** - It's probably a bit strange sitting around in the dark, but it's only for one hour. Get creative and have some fun in the dark!

Can you think of any more things you could do? If you want more earth hour information go to www.earthhour.org

Tauranga is the lead city in New Zealand for Earth Hour 2012 which is very exciting.

If you want more information go to www.tauranga.govt.nz

WORDFIND FOR EARTH

S	C	A	T	M	O	S	P	H	E	R	E	T	ATMOSPHERE
O	O	S	U	N	I	L	T	L	C	T	N	T	CHANGE
U	N	I	U	N	G	E	A	L	G	E	P	E	CLIMATE
R	S	E	O	S	N	N	I	B	M	P	E	M	CONSERVATION
C	E	L	E	A	T	M	I	N	O	G	T	P	EARTH
E	R	O	L	E	A	A	O	T	N	L	E	E	ENERGY
R	V	P	R	T	R	R	I	A	I	O	G	R	ENVIRONMENT
U	A	N	E	P	I	E	H	N	P	N	Y	A	FUTURE
T	T	S	A	V	E	C	D	L	A	G	U	T	GLOBAL
U	I	R	N	O	A	Y	E	U	R	B	T	U	GREEN
F	O	E	E	C	R	C	T	E	C	T	L	R	LANTERN
H	N	E	P	L	T	L	N	A	N	E	E	E	NATURE
G	R	E	E	N	H	E	R	U	T	A	N	T	PEOPLE

ATMOSPHERE
CHANGE
CLIMATE
CONSERVATION
EARTH
ENERGY
ENVIRONMENT
FUTURE
GLOBAL
GREEN
LANTERN
NATURE
PEOPLE
PLANET
RECYCLE
REDUCE
SAVE
SOURCE
SUSTAINABLE
TEMPERATURE
UNITING

Can you find the earth hour message with the left over letters?

answer on page 12



ACTIVITY

RECYCLED PLASTIC BOTTLE LANTERN

YOU WILL NEED:

- plastic bottles
- scissors/craft knife
- pen (for marking where to cut and put holes)
- hole punch
- tape/stickers (optional)
- paints
- paint brushes/old sponges
- old wire
- beads (paper beads would be cool - see *Issue 48 Love New Zealand* for instructions)
- sand or small stones
- glow sticks

WHAT TO DO:

- 1 Take labels off bottles, mark where to cut and put holes for handle.
- 2 Using scissors or a knife cut the top off the bottle (an adult might need to help).
- 3 Use a hole punch to make 2 holes, one on each side for the handle.
- 4 Paint a colourful design on the bottle. You can put stickers or tape on the bottle before you paint to keep some parts clear for the light to shine through - if you do that peel them off before the paint is totally dry.
- 5 When the paint is dry, one third fill with sand or some stones (this will stop it blowing over).
- 6 Thread one end of the wire through the hole on one side. Twist the wire back up towards the handle and thread on the beads. Leave enough free wire so that you can twist that around the handle so that the beads don't fall off (see picture). Do the same with the other end of the wire. (You could use harekeke for the handle if you don't have any wire).
- 7 Put your glow sticks inside the bottle (you can use tea light candles but glow sticks are much safer as a candle can cause the bottle to get hot and melt. If you do use candles a recycle a glass jar instead, but be careful as it could get hot).
- 8 Use your new recycled bottle lantern for earth hour!



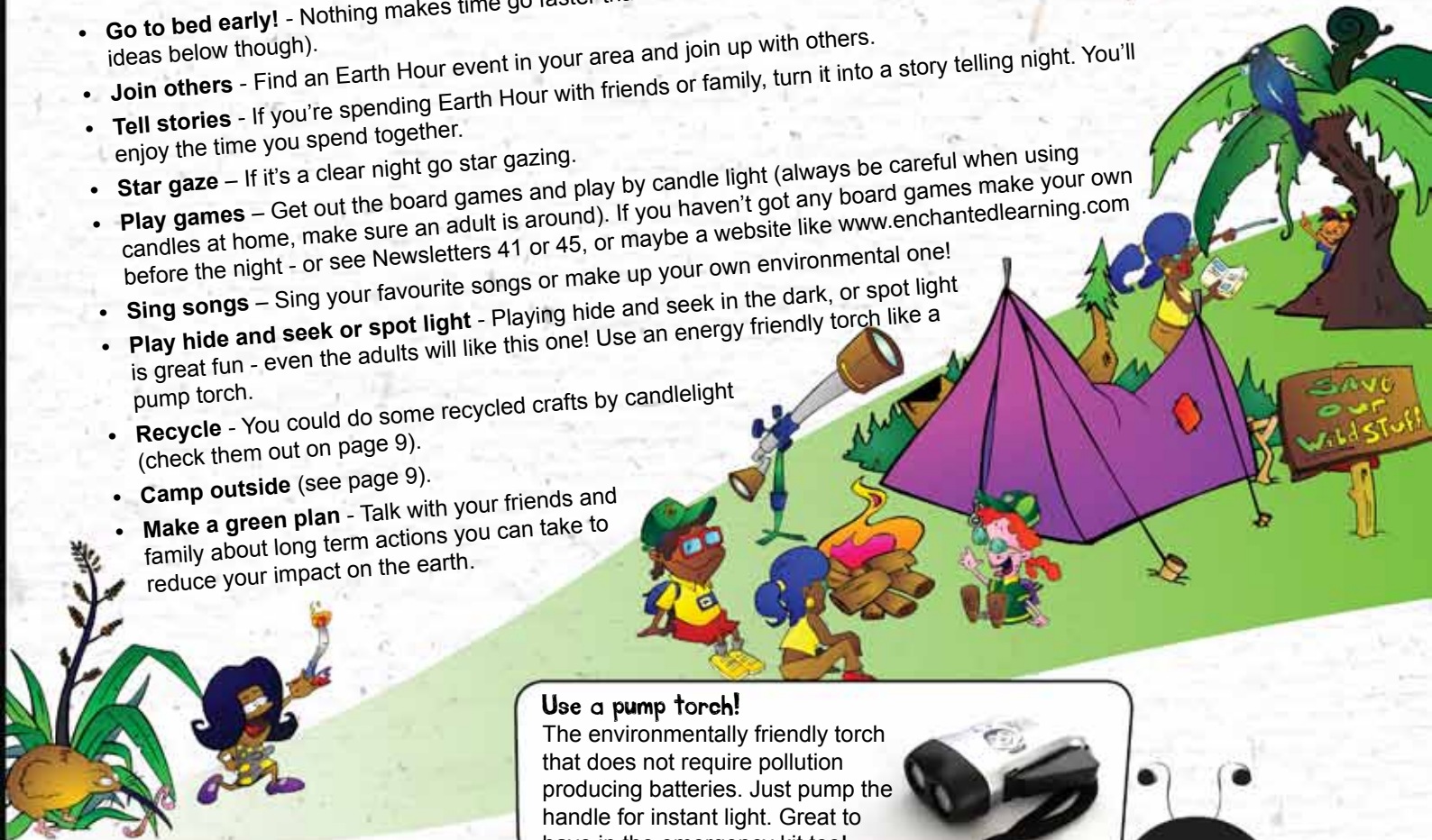
Activity adapted and sourced from www.miycreations.com
Check out the website for more sustainable crafts.

Some things to do during Earth Hour

Think of Earth Hour like a power cut. Get prepared for it, think what you could do instead of watching TV, or using the computer - remember you can't read in the dark (and using torches is still using energy!).

To help make Earth Hour go faster, here are some fun activities that you can do:

- **Go to bed early!** - Nothing makes time go faster than sleep! (Not as much fun as some of the ideas below though).
- **Join others** - Find an Earth Hour event in your area and join up with others.
- **Tell stories** - If you're spending Earth Hour with friends or family, turn it into a story telling night. You'll enjoy the time you spend together.
- **Star gaze** - If it's a clear night go star gazing.
- **Play games** - Get out the board games and play by candle light (always be careful when using candles at home, make sure an adult is around). If you haven't got any board games make your own before the night - or see Newsletters 41 or 45, or maybe a website like www.enchantedlearning.com
- **Sing songs** - Sing your favourite songs or make up your own environmental one!
- **Play hide and seek or spot light** - Playing hide and seek in the dark, or spot light is great fun - even the adults will like this one! Use an energy friendly torch like a pump torch.
- **Recycle** - You could do some recycled crafts by candlelight (check them out on page 9).
- **Camp outside** (see page 9).
- **Make a green plan** - Talk with your friends and family about long term actions you can take to reduce your impact on the earth.



Use a pump torch!

The environmentally friendly torch that does not require pollution producing batteries. Just pump the handle for instant light. Great to have in the emergency kit too!



Scrambled words

Can you unscramble the words? Answers are at the bottom of the page.

- | | |
|--------------|-------|
| aerht | _____ |
| ourh | _____ |
| tasnesibalu | _____ |
| rneeyg | _____ |
| rnmevnointe | _____ |
| glsiht | _____ |
| dureec | _____ |
| oonetivasnrc | _____ |
| ufuert | _____ |
| balogl | _____ |
| uerse | _____ |
| yclrece | _____ |



Answers: earth, hour, sustainable, energy, environment, lights, reduce, conservation, future, global, reuse, recycle

I WALKED/BIKED/TOOK THE BUS
INSTEAD OF USING THE CAR

I TOOK A SHORTER SHOWER

I TURNED TAP OFF WHILE BRUSHING MY TEETH

I MADE AN ECO-FRIENDLY TOY
SEE PAGE NINE

COMPETITION TIME

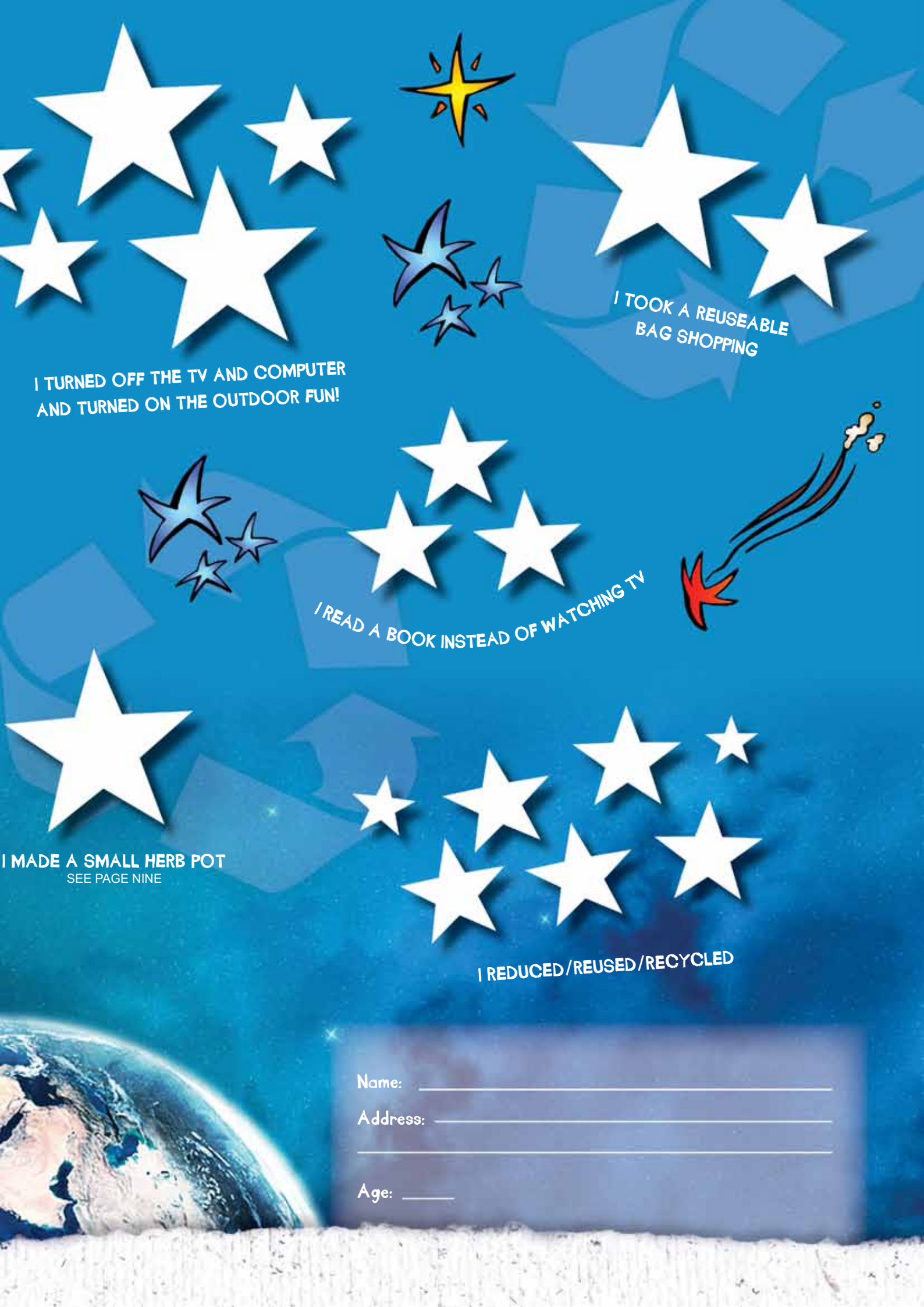
Every time you take one of the above actions
colour in a star.

Age groups are: Preschool, Under 7 years
7 - 11 years, 11 years and over.

Globe, science prizes and maps up for grabs! When
you have completed the star chart post it to:

Bay of Plenty Regional Council
Freepost 122076, PO Box 364, Whakatāne 3158
Email: buzzbop@boprc.govt.nz





I TURNED OFF THE TV AND COMPUTER
AND TURNED ON THE OUTDOOR FUN!

I TOOK A REUSEABLE
BAG SHOPPING

I READ A BOOK INSTEAD OF WATCHING TV

I MADE A SMALL HERB POT
SEE PAGE NINE

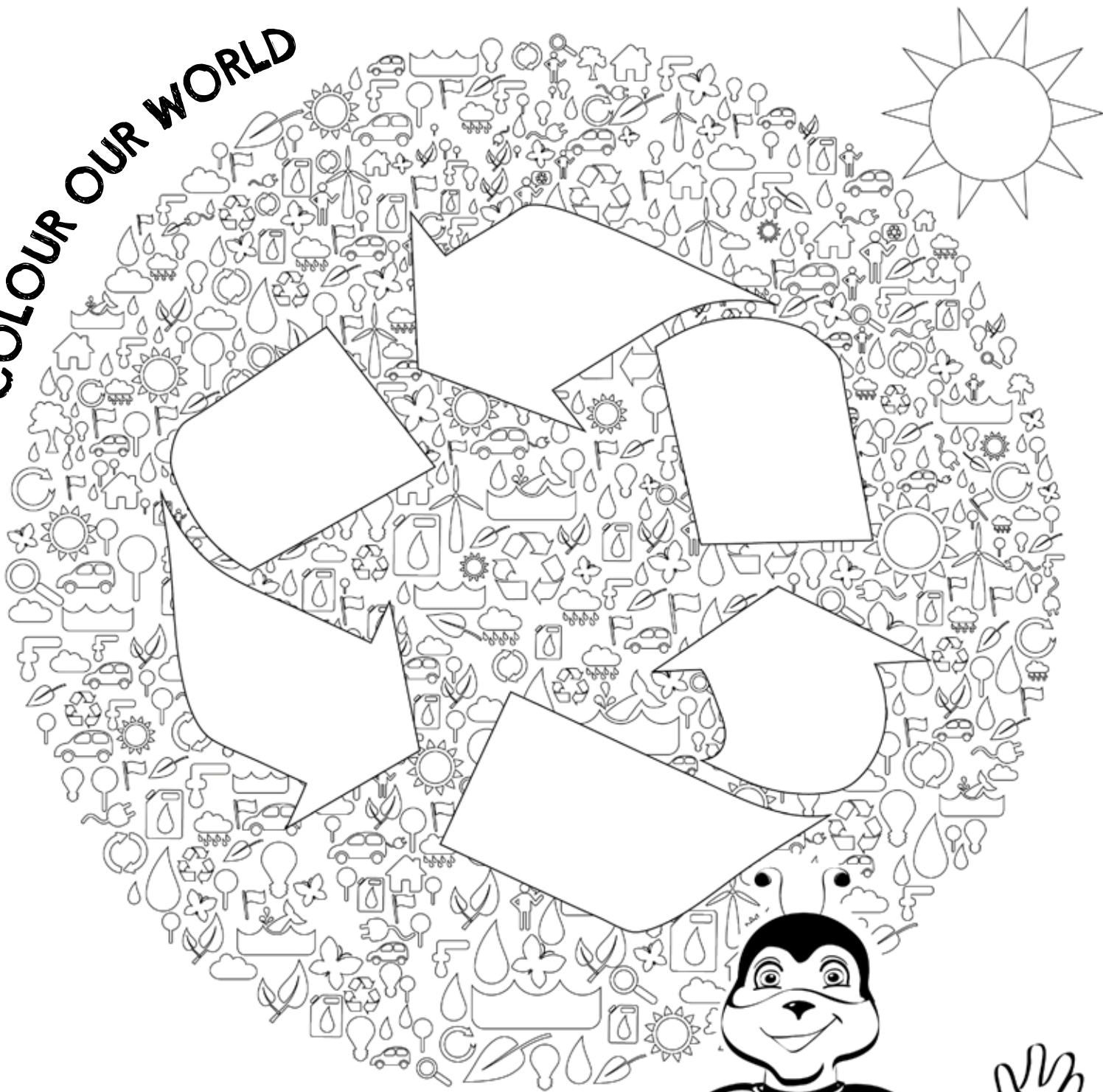
I REDUCED/REUSED/RECYCLED

Name: _____

Address: _____

Age: _____

COLOUR OUR WORLD



EARTH - FAST FACTS

Age of the Earth: 4.5 to 4.6 billion years

Circumference: about 40,000 kilometres

Human population: Seven billion (November 2011)

Highest point: Mt. Everest 8850 metres

Percentage of land: 30 percent

Percentage of water: 70 percent

Lowest point: Dead Sea: 417 metres below sea level

Deepest point in the ocean: Mariana Trench, Western Pacific Ocean
10,924 metres (wow that's deep)



SMALL HERB POTS

You will need:

- empty aluminum can or other small container
- nail and hammer
- decorations - *use your imagination and decorate with just about anything like paint, shells, buttons, paper*
- iceblock sticks
- black permanent marker
- small stones
- potting mix
- seeds
- water

How to make it:

1. Completely wash and dry can or container. (If you are using a can an adult might need to sand the edges so there are no sharp bits).
2. Turn can/container upside down. Use a hammer to tap the end of the nail to make the holes in the bottom. (An adult may need to do this for you).
3. Paint can/container and decorate however you like.
4. Place enough small rocks or pebbles in the can/container to cover the bottom.
5. Add enough potting mix to nearly fill the can/container.
6. Plant seeds and cover with potting mix.
7. Place on a plate (to catch any water that comes out the bottom) and water the seeds.
8. Write the type of herbs on the iceblock stick and put in dirt being careful not to disturb your seeds.
9. Place your new mini garden in a sunny window and remember to water them and watch them grow!



ECO FRIENDLY TOY

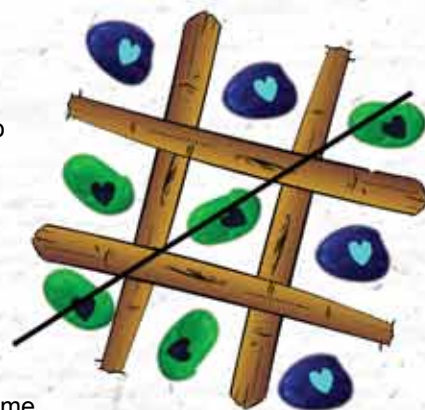
enviro noughts and crosses

You will need:

- 4x sticks
- 10x stones
- paint/markers anything to decorate each set

How to make it:

1. Paint or decorate five stones the same.
2. Paint or decorate the other five stones the same.
3. Use your imagination when decorating - you could have O and X's or glue old buttons on one set and paint the others.
4. Lie sticks in a criss cross pattern (see above).
5. Now play! The object of the game is to get three in a row (vertical, horizontal, or diagonal).



<http://kids.nationalgeographic.com> (outdoor fun)

<http://www.kaboose.com> (craft projects)

<http://www.earthour.org>

BACKYARD CAMPOUT

You don't have to travel to have a fun campout, just grab your family and a torch and head outside into your backyard - you can invite your pets too!

You will need

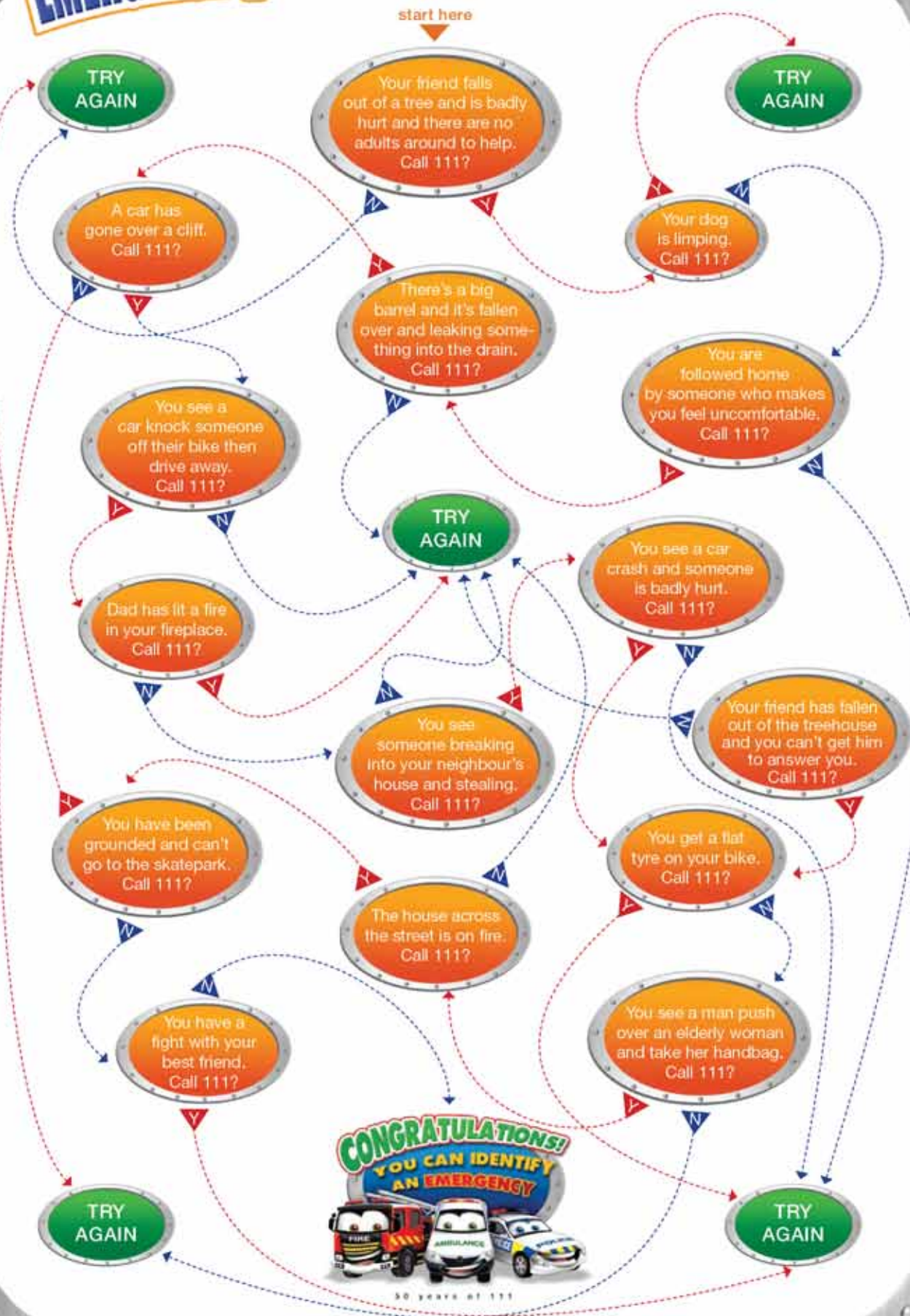
- A tent
- Bedding (like sleeping bags, blankets, pillows)
- An energy friendly torch (remember the pump torch)
- Snacks
- Playing cards or board games



Here's how

1. Find a flat spot in your garden and help your family pitch the tent.
2. Set up your sleeping bags or blankets inside the tent.
3. As the sun sets, flick on your flashlights and sit in a circle. Tell stories, jokes, play games by torch light. If it's a clear night turn the torches off and check out the stars!
4. When you get tired, go inside your tent and have a good night's sleep.

Would you call 111 in the following situation? Follow your arrow to the next question.

[start here](#)

Reproduced from www.111.govt.nz see the website for more activities

CLUB PAGE

Prize winners from issue 49 December 2011 were drawn out of all the correct quiz answers.

The winners are:

- **Claytin Thompson (8)**
- **Cassie Steiner (13)**
- **Bailey Johnson (9)**

They will each get a Pollution Busters Drink bottle and the 3 x Pollution Busters Wrist bands.



Pollution Buster - Charlie Murray, helping her Dad, raking the grass clippings to use as mulch for fruit and other trees around the house.



Fun time at the beach.



Dear BuzzBOP,
In the holidays I went to Australia and went snorkelling and scuba-diving at the Great Barrier Reef. It was an amazing experience and it really made me appreciate all of the marine life that is so important and beautiful! I saw a blue spotted stingray, a rare manta-ray (but only at a distance), and even a white tipped reef shark! I learnt so much about the ocean and the animals which live in it! ☺
Thank-you so much for your awesome Newsletters, I love reading them!
From Emily!

Thanks for all the mail, keep it coming! If you want to see your photo on this page, email or post them to us along with what you are doing!



Pollution busting calendar



NOW

Get your firewood now so it has time to dry before winter. Remember to keep it covered.

MARCH

Seaweed	3 -11 March	www.seaweed.org.nz
World Forestry Day	21 March	
World Water Day	22 March	www.unwater.org
Earth Hour	31 March	www.earthhour.org

MAY

International Composting Week 7-12 May
www.compostweek.com.au

Coast Care dune planting season begins Mid May
email coastcare@boprc.govt.nz

Youth Week 19-27 May
www.youthweek.co.nz



JUNE

World Environment Day/Arbour Day 5 June

World Oceans Day 8 June



JULY

Maori Language Week 23-29 July



BuzzBOP's Friend

Kerry Gosling

Community Engagement Team Leader

What do you do?

I have a really interesting job. Sometimes it feels like our team supports and works with just about anybody and everybody, but of course we really love our work with pollution busters! We look after the Environmental Enhancement Fund where we help community groups across the region to improve the environment. Supporting EnviroSchools in kindergartens to secondary schools is also part of our work. As is supporting the work of the Sustainable Business Network (Bay of Plenty Regional Council is a key sponsor). So my work is different every day - there is no chance of getting bored in this job.

What do you like best about your job?

I love the variety and the challenge of supporting such a wide range of people and groups to the best of my ability. It makes my day when a pollution buster tells us about how they are helping our earth every day.

What are you going to do for Earth Hour?

Well, I live out in the country and we don't get TV. So I think I will take my deck chair out onto the back lawn and check out the stars. Then I might go down our driveway and see how bright the glowworms are looking.

What is your message to Pollution Busters?

Please, please keep adding to your collection of earth friendly actions - try adding a new one each month. By December you could be making even more of a difference!



Answer to wordfind message page 8 - UNITING PEOPLE TO PROTECT THE PLANET

Pollution Busters join up or change of address here...

Please have an adult check that the details are correct before you send this.

☐

I am a new Pollution Buster

☐

I am already a Pollution Buster but I have changed my address

Name _____

School _____ Birthday ____/____/____ day / month / year

Address _____

BuzzBOP and Team
Bay of Plenty Regional Council
Freepost 122076
PO Box 364
Whakatāne 3158

buzzbop@boprc.govt.nz

Write your name, age and address on your letters and on the back of your artwork.

Have you moved and changed address?

If you have moved and changed address, please write or email us so we can make sure you get your newsletter.