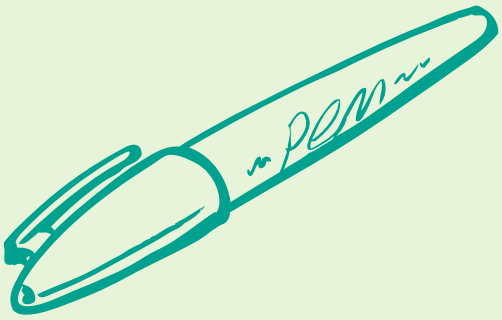
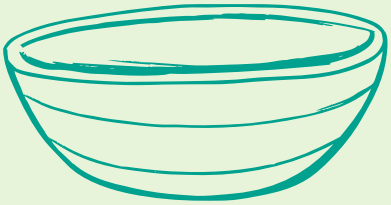
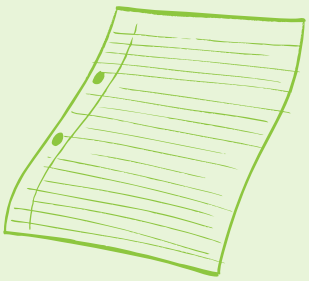
Healthy Planet



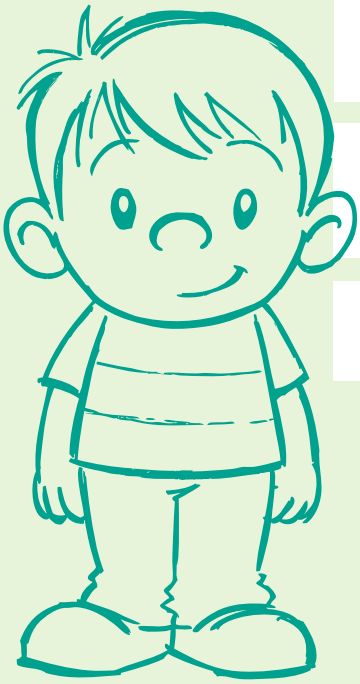




22 April

Earth Day Lesson Plan

Life in a Bubble



Year 4

– This pack contains 2, ready to use 1 hr lesson plans.

Key Inquiry Question:
Why is recycling important?

– What waste do we produce?
– Can you throw things 'away'?
– How can we reduce our waste?

Possible Culminating Activities:

– Create a, 'What a waste!' bubble collage to display in classroom.
– Write a formal letter to the local council about recycling.
– Set up a recycling system around your school.
– Make posters for your school to romote recycling.

www.healthyplanet.org

Science

National Curriculum Objectives addressed in this unit:

Key Stage 2
Sc1 Scientific enquiry
Knowledge, skills and understanding

Ideas and evidence in science

1. Pupils should be taught:

a. That science is about thinking creatively to try to explain how living and non-living things work, and to establish links between causes and effects [for example, Jenner's vaccination work]

b. That it is important to test ideas using evidence from observation and measurement.

Investigative skills

2. Pupils should be taught to:

Planning

a. Ask questions that can be investigated scientifically and decide how to find answers

b. Consider what sources of information, including first-hand experience and a range of other sources, they will use to answer questions

c. Think about what might happen or try things out when deciding what to do, what kind of evidence to collect, and what equipment and materials to use.

Obtaining and presenting evidence

e. Use simple equipment and materials appropriately and take action to control risksmake systematic observations and measurements, including the use of ICT for datalogging.

Considering evidence and evaluating

j. Use observations, measurements or other data to draw conclusions

m. Review their work and the work of others and describe its significance and limitations.

Art and Design

Key Stage 2
Knowledge, skills and understanding

Investigating and making art, craft and design

2. Pupils should be taught to:

a. Investigate and combine visual and tactile qualities of materials and processes and to match these qualities to the purpose of the work.

Knowledge and understanding

4. Pupils should be taught about:

b. Materials and processes used in art, craft and design and how these can be matched to ideas and intentions.

Citizenship

Key Stage 2
Knowledge, skills and understanding

Developing confidence and responsibility and making the most of their abilities

1. Pupils should be taught:

a. To talk and write about their opinions, and explain their views, on issues that affect themselves and society

c. To face new challenges positively by collecting information, looking for help, making responsible choices, and taking action.

Preparing to play an active role as citizens

2. Pupils should be taught:

a. To research, discuss and debate topical issues, problems and events.

Geography

Key Stage 2
Knowledge, skills and understanding

Geographical enquiry and skills

1. In undertaking geographical enquiry, pupils should be taught to:

a. Ask geographical questions [for example, 'What is this landscape like?', 'What do I think about it?']

b. Collect and record evidence [for example, by carrying out a survey of shop functions and showing them on a graph]

c. Analyse evidence and draw conclusions [for example, by comparing population data for two localities]

d. Identify and explain different views that people, including themselves, hold about topical geographical issues [for example, views about plans to build an hotel in an overseas locality]

e. Communicate in ways appropriate to the task and audience [for example, by writing to a newspaper about a local issue, using email to exchange information about the locality with another school].

2. In developing geographical skills, pupils should be taught:

a. To use appropriate geographical vocabulary [for example, temperature, transport, industry]

b. To use appropriate fieldwork techniques [for example, labelled field sketches] and instruments [for example, a rain gauge, a camera]

c. To use atlases and globes, and maps and plans at a range of scales [for example, using contents, keys, grids]

d. To use secondary sources of information, including aerial photographs [for example, stories, information texts, the internet, satellite images, photographs, videos]

e. To draw plans and maps at a range of scales [for example, a sketch map of a locality]

f. To use ICT to help in geographical investigations [for example, creating a data file to analyse fieldwork data]

g. Decision-making skills [for example, deciding what measures are needed to improve safety in a local street].

Lesson

1hr

Objectives

- To understand the Earth is a 'closed system'
- To identify ways to reduce, reuse and recycle in school and local community

Activities

Introduction

Begin the lesson with the teacher blowing bubbles.

Ask Children to describe the bubbles and record these words on a flipchart.

Draw the children's attention to the fact that a bubble is a 'closed system', this means that nothing can get in or out.

Show A picture of a bubble with a person in it, introduce the person and say, "This is Gerald, and he lives in this bubble.

Ask What would life be like for Gerald?"

Conduct a PMI for living in a bubble in groups of two or three on mini whiteboards(A Positives, Minuses and Interestings/Improve). E.g.:

P	M	I
Quiet	Trapped	
Warm	Where would you put your rubbish?	
Safe		

Talk the children through a day in the life of our bubble boy. Each child will have an item that, when they hear it read out loud, they come and put it into the plastic container or a picture on the flipchart of a bubble, whichever item you have that represents a bubble. (See resources below)

Activity

Create a rubbish bubble collage using rubbish collected at lunch time.
Children can draw Gerald and stick different types of rubbish into the bubble if now rubbish is available. This could also be done for themselves thinking about what they have thrown away over the past day/week, etc.

Plenary

Ask In Gerald's bubble, is there any 'away'? Where are all the things that Gerald has thrown away?

Say Our Earth is just like Gerald's bubble, there is no away. We live in a closed system where everything that is on Earth will always be here.

Ask Where do the things that you throw away go? (Landfill, recycling plant, etc).
Tell children that we are going to talk about this further in the next lesson.

Resources

- Bubble mix
- Collection of rubbish or children can draw this if none available
- Big plastic container, something that can represent a bubble. Use image of bubble if nothing available

Assessment

I can say that the Earth is a closed system.
I can understand that the term 'away' does not mean that the thing disappears.

Lesson

1hr

Objectives

- To understand the Earth is a 'closed system'
- To identify ways to reduce, reuse and recycle in school and local community

Activities

Introduction

Ask the children to tell you how the Earth is like a big bubble.
What do the words 'closed system' mean?
Discuss with the children what they 'throw away' each day – make a list.
Refer to collages.

Ask Where does this go?

Show images of landfill and discuss facts. Have children with cards read out their fact to the class and put on board.

Ask Where is our closest landfill site?

Ask Would you like to live nearby?

Look at a recycling bag for your local borough and find out what can be recycled. Sort through some of the rubbish from the children's collages and identify just how much rubbish cannot be recycled. Read the packaging for the item to see if it is able to be recycled. Why do they think that our borough does not recycle these items? How does this make you feel?What impact does this have on our bubble?

Activity

Your children could be given a choice of activities at this stage depending on your class.

- Write a formal letter to your local council about recycling and why certain items are not able to be recycled by our borough. You could extend children to write a balanced argument.
- Children plan to set up a recycling system around the school incorporating a compost bin
- Children could make posters to promote recycling in their school/classroom.

Plenary

Go back to blowing bubbles in front of the children. Go back to the original PMI and discuss what they thought about living in bubble at the start of the lesson. What do they think now? Ask children how they are going to change their habits to respect the bubble they live in.

Resources

- Print off and cut out facts about rubbish from resources below
- Find out where your closest landfill site is
- Recycling bag/sack for your borough

Assessment

I can say that the Earth is a closed system.
I can understand that the term 'away' does not mean that the thing disappears.

Rubbish in the bubble activity

Gerald wakes up in the morning and begins his day with a nice bowl of cereal. He finishes the box and throws it away. Gerald also finishes the milk, and being such a tidy child, he throws the old milk container away.

He then goes and has a shower and opens the packaging for a new bar of soap and throws the packaging away. He also uses the last of the toothpaste and also throws this away as well.

On the way to school Gerald reads a Metro and when he is finished he... throws it away.

In his first class Gerald goes to use one of the felt tip pens but someone has left the lid off it over night and so Gerald throws the felt tip away.

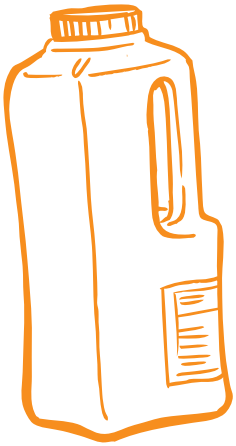
At lunch Gerald eats all of his packed lunch, sandwiches wrapped in cling film, crisps, cheese, juice and a piece of fruit and throws his rubbish away.

In the afternoon Gerald draws a picture in art but decides he would like to start again and throws the piece of paper away. The ruler he was using got snapped when he sat on it accidentally and his teacher tells him to throw it away.

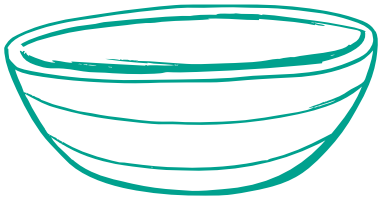
That night Gerald's mum had to rush off to work and made him a microwave dinner and threw the packet in the bin.

When Gerald went to get into bed he found a little present from his Mum, he tore off the wrapping paper and ribbon and found a new book.

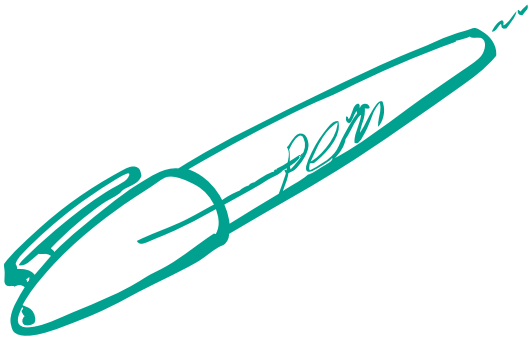
He fell asleep reading.

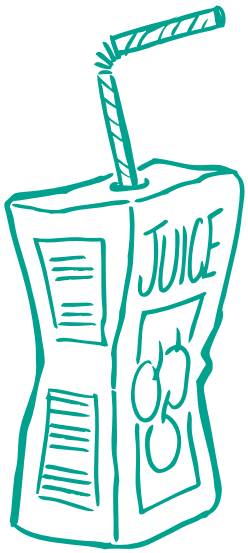



POPS




DAILY TIMES

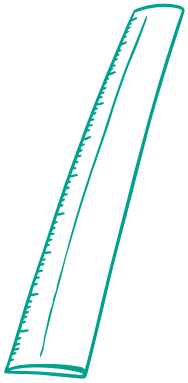

pen

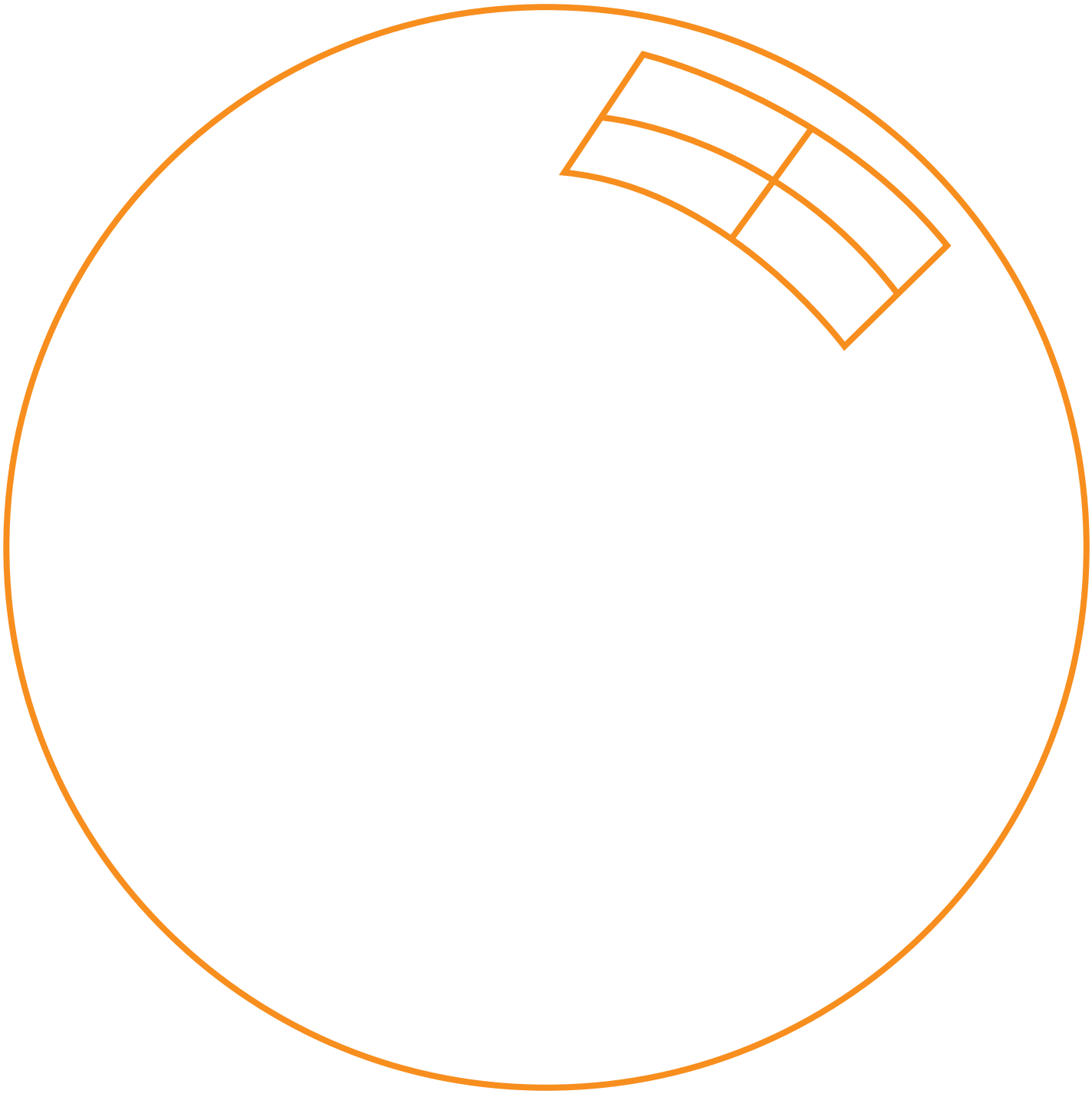

JUICE


CHEESE


CRISPS


Bubbles





Recycling facts

- The UK produces more then 100 million tonnes of waste every year. In less than two hours, the waste we produce would fill the Albert Hall in London. Every eight months it would fill Lake Windermere, the largest and deepest lake in England!
- The average household in the UK produces more then a tonne of waste every year. Put together, this comes to a total of 31 million tonnes per year, equivalent to the weight of three and a half million double-decker buses, a queue of which would go around the world two and a half times.
- Every year we produce about 3% more waste than the year before. This might not sound much but, if we carry on at this rate, it means that we will double the amount of waste we produce every 25 years.
- Most of the world's waste is produced by people from the 'developed' world (which includes Britain), even though these people only make up about 5% of the world's population.
- Two-thirds of paper is recycled, making it one of the main materials recycled in the UK.
- Each Christmas as much as 83 square kilometres of wrapping paper ends up in UK rubbish bins, enough to cover an area larger than Guernsey, one of the Channel Islands.
- It is not known how long glass takes to break down, but it is so long that glass made in the Middle East over 3,000 years ago can still be found today.
- In 2003, the recycling of glass saved enough energy to launch ten space shuttle missions!
- We produce and use twenty times more plastic today than we did 50 years ago.
- Every year an estimated 17.5 billion plastic bags are given away by supermarkets. This represents over 130,000 tonnes of plastic - enough to cover an area the size of London twice with a layer of bags.

facts taken from http://www.recyclezone.org.uk/iz_wastefacts.aspx

What can your school do for Healthy Planet?

Adopt land and earn a grant

As well as making small changes to contribute to a healthier planet, your children might want to do more. By adopting a hectare of endangered land, your class will be protecting it for generations to come.

Choose, adopt, dedicate and view your plot online and earn your school a grant.

At Healthy Planet we think you should choose where your donation goes. It doesn't have to be parents putting their hands into their pockets. It's about children making a difference to their lives and the world around them.

Green fundraising to adopt land

Cash for cans children can collect aluminium cans that can be returned for cash.

A car boot sale children will learn the benefits of reusing books, clothes and toys whilst raising money towards their hectare of land. Contact property@healthyplanet.org for help with finding a free venue.

Old mobile phones we will help your school make money from old phones through companies willing to swap cash for older models. www.healthyplanet.valuerecycling.com

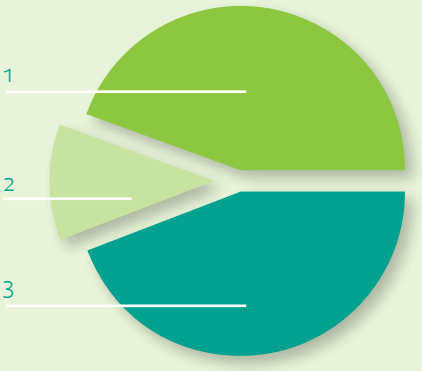
At work recycling children can ask their parents to bring home empty ink cartridges from work that can be exchanged for up to £3 each.

A spring clean children can bring in old clothes and shoes to be donated to children and families in developing countries and in return for cash.

By participating in any of the activities listed, your children will begin to live the process of reducing, reusing and recycling.

Raise GBP £180 and see how your cake gets cut

1. GBP £79.78 goes to the park where your school adopted a plot
2. GBP £20.44 goes to Healthy Planet's brilliant ideas factory
3. GBP £79.78 goes to your children's choice: back to your school, or back to 1 and 2



Healthy Planet

Working with the Geographical Association

Earth Day Lesson Plan

Life in a Bubble

Published by Healthy Planet

Healthy Planet is a charity set up to inspire, encourage and support people around the world and helps you to make a positive & measurable difference.

www.healthyplanet.org/earthday

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