WWF

NEWSLETTER

FEBRUARY

2012

Activities for schools

LEARN ONLINE

These activities are designed to complement the Spring 2012 edition of Learn, our termly poster resource for schools. They highlight the links between WWF's global Earth Hour campaign, and the UN's conference on sustainable development (known as Rio+20).

The Learn poster can be downloaded from **wwf.org.uk/learn/earthhour**

Activities within this resource

My brilliant world treasure box

Procedure:

Explain:

A key message behind WWF's Earth Hour in 2012 is Our World Is Brilliant – Help Keep it That Way.

Ask pupils to create a list poem based on the idea of a treasure box. They'd fill this box with the things that are most precious to them; things that make the world a brilliant place. They might include things about friends or family (e.g. my mother's smile); places (e.g. the leafy lane to my grandma's cottage); feelings; emotions; weather; seasons; wonderful creatures or special days.

Here's what one young person says about what she thinks is precious:

"... everything around you has its own beauty... That's the reason I take pictures. To make everyone else see that every single thing, no matter how ordinary or plain it is, can be beautiful, you just need to look at it with the right eyes."

Celia Morgan, age 13

Extension:

Ask pupils to think about how they might use their poems as a starting point for another piece of work. The poem might inspire a painting or be turned into lyrics for a piece of music. It might be used as the starting point for a story similar to the tale of Pandora's Box or a piece of dance.

Evaluation:

Think about the things in your treasure box. Which ones can you protect or conserve? What can you do to achieve this?

Learning cycle:

Reflection

Age range:

9-14

Curriculum links:

English

Time needed:

40 minutes

Group size:

Individuals

Setting:

Indoors

Key vocabulary:

change, conserve, precious, protect, value,

Learning outcomes:

- To understand that change is part of the natural world.
- To recognise that some changes are caused by human activity and that we can do things that will stop these changes.

Preparation:

- Tell pupils about the activity at least 1 day in advance. Ask them to talk to friends or family about the kinds of things that they'd want to keep safe in a treasure box. Explain that making notes is a good idea but that talking about ideas is the best form of preparation.

Resources needed:

Paper

Learning cycle:

Motivation

Age range:

9-14

Curriculum links:

English

Time needed:

30 minutes

Group size:

Whole Class

Setting:

Indoors

Key vocabulary:

inspiration

Learning outcomes:

- To understand how people can be inspired to make a positive difference
- To begin to think about some of the things that prevent people making sustainable choices

Resources needed:

Access to the following websites:

mtn.wwf.org.uk
earthhour.wwf.org.uk

Inspiration

Procedure

Explain that one of the aims of events like Earth Hour is to inspire people to take action that will help to protect the world that sustains us and to build 'The Future We Want'.

Brainstorm:

Imagine you are making a short video designed to inspire people to look after their environment. What sorts of words, music, sounds and images might you use? What emotions will you target in your audience?

Watch and evaluate the following videos using these questions:

- What does the video want the audience to do?
- How does it try to inspire people to do this?
- Does it work?

My True Nature: **mtn.wwf.org.uk**

Earth Hour 2012: **earthhour.wwf.org.uk**

Plenary

Discuss pupil's ideas. Write your top tips for an inspirational video.

Extension

Develop a piece of creative work based on the My World in Brilliant/Earth Hour theme.

Use some of the work you did for the 'My brilliant world treasure box' activity or the work presented on the following website to inspire you:

mtn.wwf.org.uk/beInspired.htm

Evaluation

Think about the videos you watched. Did they help to make you think, feel or act differently? Will they make a lasting change?

Rio+20 - The Future We Want

Procedure

Explain that:

- Rio+20 is the United Nations Conference on Sustainable Development.
- The first such conference, called the Earth Summit, took place 20 years ago in 1992, followed by the World Summit in 2002.
- Countries will discuss ways to provide people with the food, energy and fresh water they need in ways that protect the environment.

Look at resource sheet 1 (page 8). Read and discuss the statement by the UN Secretary General.

Task:

Ask pupils to think about the changes described on resource sheet 1. Ask them to make notes about the causes or effects of these changes.

The slogan of Rio+20 is 'The Future We Want'. Ask pupils to think of things that could be done to tackle those changes that are causing environmental damage, and to help build the future they want. At what level should these actions happen – international, national, regional, local, individual?

Different groups could tackle different issues.

Plenary

Invite groups to share their work.

Extension

Write a message to UN Secretary General, Ban Ki-Moon about the future you want.

Evaluation

How does what you have learned make you think and feel? How will you act now?

Learning cycle:

Building knowledge

Age range:

9 - 14

Curriculum links:

Geography, citizenship, English

Time needed:

50 minutes

Group size:

3 - 5

Setting:

Indoors

Key vocabulary:

delegate, Rio+20, United Nations (UN)

Learning outcomes:

- To understand that global issues are addressed by countries at the United Nations.
- To recognise that environmental issues are addressed at local, national and global levels.

Resources needed:

Copies of resource sheet 1 (page 8), large sheets of paper

Learning cycle:

Building knowledge

Age range:

9-14

Curriculum links:

Science, geography, English

Time needed:

60 minutes

Group size:

2-3

Setting:

Indoors

Key vocabulary:

charcoal, climate change, deforestation, fossil fuel, generate, global, greenhouse gas, irrigation, kerosene, local, pollution, solar

Learning outcomes:

- To understand that technology can make a positive contribution to environmental protection and development
- To recognise the links between local and global issues and action

Resources needed:

Copies of resource sheet 2 (page 9), access to the online interactive map at **www.ashden.org./winners**

Making a difference

Procedure:

Explain that:

Energy is one of the key foci of the UN Conference on Sustainable Development (Rio+20). The Ashden Awards celebrate the work of enterprising individuals, communities and small businesses that come up with creative solutions to providing sustainable energy to people in the UK and across the world.

Many of these schemes tackle both local and global issues. For example:

- Local – homes without electricity
- Global – electricity from renewable sources can help to tackle issues such as climate change and deforestation.

Read and briefly discuss the problems listed on resource sheet 2 (page 9)– Is that a global or local issue? Is that problem best tackled by global or local action?

Demonstrate the interactive map and ask pupils to use notes and mapping diagrams to collect information about some of the award-winning schemes.

Plenary

Invite pupils to share their research, ideas and opinions about the schemes.

Extension

Invite pupils to select their favourite scheme(s) from those on the map. Ask them to explain their reasoning. For example, they might select the scheme with the biggest impact or the scheme that provides the simplest/cleverest solution.

Evaluation

Look at some of the schemes with a partner. Discussion: How has this scheme helped people locally? Does this scheme help to address any global issues? How?

Food glorious food

Procedure

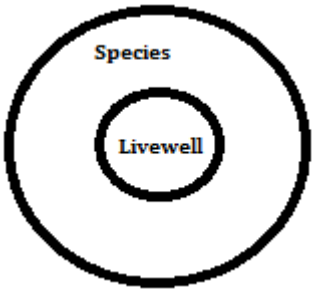
Food is a key issue being addressed at Rio+20. Watch the following film: Why we're helping save the Cerrado:

www.wwf.org.uk/what_we_do/safeguarding_the_natural_world/forests/forest_conversion/iconic_species_of_the_cerrado.cfm

Read the background information on resource sheet 3 (page 10).

Explain the task:

To create a piece of artwork that can be used to explain how eating meat affects the wildlife of the Cerrado. The design will be based around two concentric circles. The inner circle will represent a plate showing foods that support the **Livewell 2020** food campaign. The outer circle will be used to illustrate species that we are helping by reducing the amount of meat we eat.



Ask pupils to use the background information and research links on the resource sheet to help them plan and create their work.

Extension

Ask pupils to think about how they'd explain the message or meaning of their artwork and how they might use it to convince people to adopt the principles of Livewell 2020 food campaign.

Evaluation

Keep a food diary. How well have you adopted the principles of Livewell 2020 food campaign?

Learning cycle:

Taking action

Age range:

7-14

Curriculum links:

art, science, geography

Time needed:

60 minutes

Group size:

Individuals

Setting:

indoors

Learning outcomes:

- To understand that farming can lead to habitat loss.
- To recognise the link between local choices and global issues.

Preparation:

Resources needed:

Copies of resource sheet 3 (page 10), internet access, art materials

Learning cycle:

Building knowledge

Age range:

9-14

Curriculum links:

Maths, geography

Group size:

Pairs

Setting:

Indoors

Key vocabulary:

industry, irrigation, livestock, manufacturing, production

Learning outcomes:

- To understand that water is used in growing and manufacturing the things we buy.
- To understand that we can reduce the amount of water that we use.

Resources needed:

Copies of resource sheet 4 (page 11)

Water footprints

Procedure:

Explain:

One of the challenges for Rio+20 is to improve the way the world conserves and manages water.

There is enough water to service all of our needs and the needs of the natural world both now and into the future – if we are careful about the way we use it.

If we don't improve the way we conserve and manage water, over 7 billion people could be living with chronic water scarcity by 2020.

Explain that one of the things we can all do to improve the way we use water is to improve our awareness of the ways we use it. Ask them to complete the questions on resource sheet 4 (page 11).

Plenary:

Explain the correct answers and discuss why certain foods and goods might require so much water to produce.

Extension:

Explore water footprints using the following website:

www.waterfootprint.org/?page=cal/WaterFootprintCalculator#result

You might also want to carry out some of the freshwater focussed activities in the Autumn 2011 issue of Learn available at **wwf.org.uk/learn/rivers**.

Evaluation:

Think about your water use in the last 24 hours. What could you do to reduce your use in the next 24 hours?

Answers:

A. Taking a bath: 80 litres, D. A burger: 2400 litres, B. Taking a shower: 35 litres E. Wheat in bowl of cereal: 2001 litres, C. Flushing the toilet: 9 litres, Total D+E: 4401 litres, Total A+B+C: 124 litres
F. A sheet of A4 paper: 10 litres, H. A cotton shirt: 3000 litres, G. A cup of black coffee: 140 litres, I. Cotton trousers: 12000 litres, Total F+G: 150 litres, J. Shoes: 8000 litres, Total H+I+J: 23000 litres
K. 1 kg of beef: 1540 litres, N. 1 litre of milk: 1000 litres, L. 1 kg rice: 2500 litres, O. 1 kg sugar: 1800 litres, M. 1 kg white bread: 1600 litres, Total N+O = 2800 litres, Total K+L+M = 5640 litres
P. Average UK daily water use (showers, washing, drinking etc): 150 litres, Q. Average UK daily water use to the cotton we use: 210 litres, Total P+Q =360 litres

Resource sheet 1: Rio+20

UN Secretary General, Ban Ki-Moon, said young people needed to be included in Rio+20 and other UN meetings:

'Young people can and must play a central role in bringing dynamic new ideas, fresh thinking and energy to the Rio+20 process.'

Rio+20 takes place 20 years after the 1992 United Nations Conference on Environment and Development.

CHANGE SINCE 1992

	1992 to 2012	**Notes**
Consumption of ozone depleting substances	Down by 93%	An example of successful action by countries working together
World Population	1 450 000 000 more people	Growth rate down from 1.65% to 1.2% per year
Average meat consumption	Up from 34kg to 43kg per person per year	Meat production creates 18-25% of global greenhouse gas emissions
Deforestation	300 million hectares	
Wildlife (Living Planet Index)	Down by 12%	About 20% of vertebrate species are classified as threatened by extinction
CO2 emissions	Increased by 36%	
Global average temperature	Increased by 0.4°C	
10 hottest years on record	1998, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2009, 2010	
Renewable energy	Solar generation up by 30 000%, wind generation up 6000%	Wind and solar still only generate 0.3% of global energy
Oceans	Sea levels rising by 2.5 mm per year, average temperatures rising, acidification increasing	

Source: http://www.unep.org/geo/pdfs/Keeping_Track.pdf

Resource sheet 2: Solutions

Task:

Find out about some of the schemes that have won the Ashden Award.

Think about questions that will help you to focus your research e.g.

- What local/global problem(s) does this scheme address?
- How does it do this?
- How has this scheme helped to improve the lives of local people?

Problems addressed by some of the schemes:

- Every year, between 1.5 and 2 million people die as a result of indoor air pollution – often resulting from wood and charcoal fuelled cooking stoves and kerosene lamps used for lighting.
- Wood and charcoal are still the main source of energy for most people in developing countries. Consumption of fuel wood has increased by 250% since 1960 and is one of the causes deforestation and habitat loss.
- Almost 20% of the world's population do not have access to electricity. Amongst other things, electricity allows people to store food and medicines safely in fridges and enables people to learn and communicate.
- Most electricity is generated by burning fossil fuels. This creates greenhouse gases which fuel climate changes.
- Irrigated land is more than twice as productive as land watered naturally by the rain. Irrigation usually requires pumps which can be too expensive for some farmers to buy and run.
- Large dams are sometimes built across rivers to generate electricity. This can have a devastating effect on the species that live in the rivers and upon local communities that are moved because of flooding caused by the dams.

Solutions

Search the map on the following website to explore some of the solutions that are addressing these problems:

http://www.ashden.org/winners

- GIRA, Mexico
- CEHEEN, Nigeria.
- CRELUZ, Brazil
- Shaanxi Mothers, China
- AID Foundation, Philippines
- Solar Energy Foundation, Ethiopia

Resource sheet 3: Food glorious food

BACKGROUND INFORMATION

Changing the food that we eat is one of the most important things that we can do to protect the environment. It's also one of the changes that people are most unwilling to make.

WWF's Livewell 2020 food campaign encourages people to adopt 5 principles:

- Eat more plants
- Waste less food – we waste about 30% of the food in our homes
- Eat less meat
- Eat less processed food
- Eat certified food e.g. MSC fish, RSPO palm oil or RSPCA Freedom Foods

Soya is grown to provide feed for the animals that we eat. People now eat about twice as much meat as they did 50 years ago and there are now twice as many people. More and more habitat is being cleared to grow more and more animal feed like soya.

Eating less meat reduces the need to grow soya and helps to protect the wildlife in areas like the Cerrado.

RESEARCH

Livewell 2020

http://www.wwf.org.uk/what_we_do/campaigning/food_campaign/livewell_2020/

The Cerrado and its animals

Video, Photos and facts about species of the Cerrado – search for the word 'Cerrado' in the following website:

http://www.arkive.org

http://www.wwf.org.uk/what_we_do/safeguarding_the_natural_world/forests/forest_conversion/iconic_species_of_the_cerrado.cfm

Soya and supermarkets mapping diagram

http://www.wwf.org.uk/what_we_do/safeguarding_the_natural_world/forests/forest_conversion/soya_and_supermarkets/

Certified soya

http://www.wwf.org.uk/news_feed.cfm?4951/Waitrose-first-to-answer-our-call-for-certified-soya

Cerrado factsheet

http://assets.wwf.org.uk/downloads/cerrado_factsheet_english.pdf

Resource sheet 4: Water footprints

Water footprints are a way of thinking about the amount of water we use. Some of our water use is obvious – like turning on the tap to wash our hands. Some of our water use is hidden – like the water used to make this sheet of paper or the water used to grow the cotton and manufacture a cotton shirt.

YOUR TASK:

Estimate the total water use to complete each of these calculations:

A. Taking a bath	_____ **litres**	**D. A burger**	_____ **litres**
B. Taking a shower	_____ litres	E. Wheat in bowl of cereal	_____ litres
C. Flushing the toilet	_____ litres		_____ litres
Total A+B+C =	**124 litres**	**Total D+E=**	**4401 litres**

F. A sheet of A4 paper	_____ **litres**	**H. A cotton shirt**	_____ **litres**
G. A cup of black coffee	_____ litres	I.. Cotton trousers	_____ litres
	_____ litres	J. Shoes	_____ litres
Total F+G=	**8000 litres**	**Total H+I+J=**	**23000 litres**

K. 1kg of beef		**N. 1 litre of milk**	
L. 1kg of rice		O. 1kg of sugar	
M. 1kg white bread			
Total K+L+M=	**5640 litres**	**Total N+O=**	**2800 litres**

P. Average UK daily water use (showers, washing, drinking etc)	_____ **litres**
Q. Average UK daily water use to the cotton we use	_____ litres
Total P+Q =	**360 litres**

STAY TUNED FOR OUR NEXT EDITION OF LEARN

FOR MORE INFORMATION

Please feel free to contact Karen Gates

learn@wwf.org.uk

Why we are here
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.
wwf.org.uk