

Values

Money and Me

# COSTING THE EARTH

KS1/2 Learning Resources



## Story Overview

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Children will explore how energy is used in the home and discover simple strategies to conserve energy. Children will plan individual actions to reduce energy waste around the home and the school environment. They will work collectively to create an energy-saving action plan for the class or whole school.

## Baseline and Assessment

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Conduct the quiz as a baseline for unit, using the activity to identify gaps in the children's knowledge and understanding and to set the agenda for learning. Record scores for children on score sheet (this is in the teachers area).

Repeat the quiz as a follow up for unit - record follow up scores for children on score sheet to evaluate their improvement over the unit.

## Learning Objectives

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## Lesson Overview for this Unit

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Although we have suggested delivering this unit as separate lessons these can easily be combined together or split down further to suite and your classes needs.

### Lesson 1: Costing the Earth

Exploring energy saving, this activity flows from the story book Fair Days Pay.

It can also be done as a stand-alone activity to explore the cost of energy in the home. A Saving

Energy Factsheet is provided for use in the classroom and at home.

Using the click and pop-up pictures, children explore the ways in which they can contribute to saving energy around the home (and even at school). Each pop-up offers advice on how they can make small changes that all add up to a big saving.

This is a must for all budding eco-warriors.

### Lesson 2: I pledge

Children will consider individual actions they can take to reduce energy waste around the home and the school environment. Children will work collectively to create an energy saving action plan for the class or whole school.

Mathematics and English extensions are included

### Lesson 3: Costing the Earth Boardgame

Using a simple boardgame, children explore the concepts contained in the click-on activity through a different format. You will need to print out, cut up and prepare the game elements and you will also need dice.

### Working Together: Activities to Explore at Home

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We suggest that the children revisit the Costing the Earth click-on activity and boardgame at home with their family if this is practical and appropriate. Alternatively the downloadable storybook.

Paper version of the activity included. This will familiarise the family with the unit and it's content and promote discussion on the issues raised.

Saving Energy Factsheets to take home.

Storybook (pdf version) to take home.

I Pledge plan taken home to add family contribution (see "I Pledge" lesson plan).

Read VMM  
ground  
rules here



# LEARNING OBJECTIVES

KS1/2 | COSTING THE EARTH

Met?	Link	Links to PSHE Outcomes KS1
	<b>1b</b>	To share their opinions on things that matter to them and explain their views.
	<b>2b</b>	To take part in a simple debate about topical issues.
	<b>4a</b>	To recognise how their behaviour affects other people.
	<b>2d</b>	That there are different kinds of responsibilities, rights and duties at home, at school and in the community, and that these can sometimes conflict with each other.
	<b>2e</b>	To reflect on spiritual, moral, social, and cultural issues, using imagination to understand other people's experiences.
	<b>2j</b>	That resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment.
	<b>4g</b>	Where individuals, families and groups can get help and support.
Met?	Link	Links to PSHE Outcomes KS2
	<b>1b</b>	To recognise their worth as individuals by identifying positive things about themselves and their achievements, seeing their mistakes, making amends and setting personal goals
	<b>1f</b>	To look after their money and realise that future wants and needs may be met through saving.
	<b>2a</b>	To research, discuss and debate topical issues, problems and events.
	<b>2j</b>	That resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment.

# LEARNING OBJECTIVES

KS1/2 | COSTING THE EARTH

Met?	Link	Links to Financial Capability KS1 (PFEG)
	<b>FU6</b>	I can work well in a group, cooperating with others to achieve a joint outcome.
	<b>FU5</b>	I can work well in a group, cooperating with others to achieve a joint outcome.
Met?	Link	Links to Financial Capability KS2 (PFEG)
	<b>FU7</b>	Recognise household expenses and regular financial commitments.
	<b>FC4</b>	Understand that we need to save if there isn't enough money for everything we want or have to buy.
	<b>FC6</b>	Begin to be able to plan and think ahead.
	<b>FR1</b>	Prioritising needs and wants – balancing needs and wants, and prioritising what gets first call on a limited supply of money.
	<b>FR2</b>	Understand the difference between good debt (planned and manageable) and bad debt (unplanned and unmanageable).

# FRAMEWORK REFERENCE

KSI/2 | COSTING THE EARTH

Met?	Links to Spoken Language Years 1 to 6
	Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings.
	Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments.
	Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas.
	Participate in discussions, presentations, performances, role play, improvisations and debates.
	Consider and evaluate different viewpoints, attending to and building on the contributions of others.
Met?	Links to Reading Comprehension Years 3 and 4
	Listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks.
	Reading books that are structured in different ways and reading for a range of purposes.
	Identifying themes and conventions in a wide range of books.
	Checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context.
	Asking questions to improve their understanding of a text.
	Identifying main ideas drawn from more than one paragraph and summarising these.
	Retrieve and record information from non-fiction.
	Participate in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say.
Met?	Links to Writing Composition Years 3 and 4
	Discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar.
	Organising paragraphs around a theme.
	In non-narrative material, using simple organisational devices [for example, headings and sub-headings].
	Assessing the effectiveness of their own and others' writing and suggesting improvements.

# FRAMEWORK REFERENCE

KSI/2 | COSTING THE EARTH

<b>Met?</b>	<b>Links to Mathematics Year 3</b>
	Interpret and present data using bar charts, pictograms and tables.
<b>Met?</b>	<b>Links to Mathematics Year 4</b>
	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

<b>Date of unit</b>	
<b>Delivered by</b>	



## Lesson 1 Costing the Earth

You will need:

- Costing the Earth interactive activity accessible from the Exploring Pride Place page or the Activities page menu.
- If you are working with KS2 you may wish to precede this activity with the story activity 'A Fair Day's Pay' as this also references the Debbie Clayton household and her wasteful nephew Roger.
- KS1 and 2 will both be able to use the Costing the Earth Activity

## Lesson Outcomes

Children know some of the ways in which they can contribute to saving energy around the home.

## The Activity

- Using the online or downloaded activity children work in small groups, or as a whole class, using their mouse or interactive board to find pop-up information hidden in the pictures of the kitchen and living room in Debbie, Ali and Roger's house.
- When exploring the webpage, the cursor will change from an arrow to a pointing finger when you are hovering over a 'hotspot'. Clicking will trigger the pop-up.
- The activity represents the research phase of the pledges they will make in Lesson 2 | Pledge.

## Working Together: Activities to Explore at Home

We suggest that the children revisit the Costing the Earth click-on activity at home with their family if this is practical and appropriate.

This will familiarise the family with the unit and its content and promote discussion on the issues raised.

Take the  
quiz here







## Lesson 2 I Pledge

You will need:

- **RESOURCE 2.1**  
I Pledge sheets – one per child
- **RESOURCES 2.2 – 2.3**  
Saving Energy Factsheets  
– enough per group/child
- Costing the Earth Interactive click-on activity (you will need computers for this or it can be done as a class using a whiteboard)

## Lesson Outcomes

Children will consider individual actions they can take to reduce energy waste around the home and the school environment.

Children will work collectively to create an energy saving action plan for the class or whole school.

## The Activity

- Using the Costing the Earth interactive click-on scenes of Debbie Clayton's house explore the kitchen and living room with the whole class.
- Explain/revisit each energy saving opportunity to ensure the children understand each item's value.
- Review what has been discussed using the Saving Energy Factsheets.
- Hand out the I Pledge activity sheet and explain what a pledge is.
- Ask the children to work in small groups or pairs to discuss the suggestions on the sheet and tick which ones they pledge they will be able to do in their own home.
- Ask them to add to the list their own energy saving ideas.
- Encourage each child / pair / group to share their ideas with the whole class and add any new ideas to their own pledge sheet.
- In addition produce an energy saving pledge list for the school and display it in the classroom or the school notice board to encourage a whole school approach. Maybe present it as an assembly and encourage other classes to pledge too. *(This activity can make useful links with the school council.)*

## Extend: Mathematics

- Children present information from complete pledge sheets as bar graphs or pictograms.
- They gather information from a group of pledge sheets and construct a bar chart or pictogram where the symbol represents a group of units.

## Extend: English

- Write to the school governors to persuade the school to implement new 'green' measures e.g.: recycling bins.

## Working Together: Activities to Explore at Home

Ask the children to take their I Pledge sheet and the Saving Energy Factsheets home and discuss with their family. Encourage them to consult family members and ask them to add any new ideas and help them to keep a record of how well they do by scoring in the score box provided.

After an agreed period, for example 1 week, ask the children to bring their completed pledge sheets back to school. Discuss the outcomes with the children. How well did they do? Did family members help? Did it change the way the child or family thinks about saving energy at home?

Take the  
quiz here





# I PLEDGE SHEET

Energy saving pledge	Tally (how many times you did it)
<input type="checkbox"/> Turn light switch off	
<input type="checkbox"/> Put on a jumper to keep warm	
<input type="checkbox"/> Close door to keep room warm	
<input type="checkbox"/> Take less time in the shower	
<input type="checkbox"/> Put less water in the bath	
<input type="checkbox"/> Turn plugs off when not in use	
<input type="checkbox"/> Turn light switch off	
<input type="checkbox"/> Add your idea.	
<input type="checkbox"/> Add your idea.	



## Energy Saving Tips



- Dry clothes on the line, not the radiator. Avoid using the tumble drier where possible.
- Turn off plugs when not in use. Leaving things on standby uses energy.
- Boil a kettle with only as much water as you need.
- Wash clothes at a lower temperature (30 degrees) and try to make sure the washing machine is full.
- Don't leave the hot tap dripping.
- Use energy saving light bulbs.
- Try not to leave fridge door open.
- Defrost the freezer regularly.
- Cover pots and pans when cooking, they will boil a lot quicker.
- Cook several different things on one ring using a steamer.
- Turn central heating down by one degree and put a jumper on.
- Close doors to prevent losing heat from the room.

Useful website for energy saving tips  
[www.direct.gov.uk](http://www.direct.gov.uk)



# FACTSHEET: ENERGY SAVING TIPS

Household Item	Average Cost Per Week
Fridge Freezer	£0.50
Dishwasher (1 wash per day)	£1.00
TV	£1.40
DVD player	£0.50
Cable / satellite TV box	£0.50
Computer	£0.35
Electric fire (on all evening)	£23.00
Shower (one per day)	£3.30
Vacuum cleaner	£0.50
Gas fire (on all evening)	£5.60
Central heating 5 hrs a day	£15.50
Boiling a full kettle (6 times a day)	£0.85



## Lesson 3 Costing the Earth Board Game

You will need:

- **RESOURCE 3.1**  
Costing the Earth Board Game pre-prepared
- **RESOURCES 3.2 – 3.4**  
You will need to print out the base board A3 and print the cards onto A3 card and cut out into the 3 decks
- You may wish to laminate the game components so they can be re-used
- Dice – one per game
- Counters or coins – 1 per player
- Red / green / yellow paper and marker pens (if making a giant game version)\*

## Lesson Outcomes

Children explore how energy can be wasted and understand the ways in which they can contribute to saving energy around the home.

## The Activity

- Children can work in a number of small groups (you will need to prepare multiple games for this option) or use one single game and children work in teams (acting collectively as a single player).
- They take turns to throw the dice and move around the board. Depending on the colour of the square where they land, take an 'Eco Warrior' or 'Eco Horror' card and follow the instructions after reading it out loud to the group.
- There are also a number of 'Energiser' cards with actions/tasks that can be completed by the individual player or the whole group.
- \*Alternatively you can prepare a large scale 'board' on the floor using green, yellow and red paper squares to replicate the A3 board. In this case the children stand on the paper numbers and move themselves around the 'board'. This is recommended in summer as it can be played outside or in the hall.
- The winner is the first player or team to reach the final target at the end of the trail.

## Working Together: Activities to Explore at Home

Children signpost the game to their family and encourage them to download and make the game to play it at home if it is appropriate. Alternatively children can make up a game to take home.

This will familiarise the family with the unit and its content and promote discussion on the issues raised.

Take the  
quiz here



# COSTING THE EARTH BOARD GAME



**✘ Eco Horror**

You fill the kettle too full

Back 1 space

**✘ Eco Horror**

You leave the hall light on

Miss a turn

**✘ Eco Horror**

You have a very deep bath

Back 2 spaces

**✘ Eco Horror**

You turn the heating up really hot and sit in a tee shirt

Back 2 spaces

**✘ Eco Horror**

You dry clothes in the tumble dryer on a sunny day

Miss a turn

**✘ Eco Horror**

You leave the fridge door open

Back 1 space

**✘ Eco Horror**

You leave your computer on when you are not using it

Back 2 spaces

**✘ Eco Horror**

You leave the TV on standby overnight

Back 1 space

**✘ Eco Horror**

You leave the back door open in winter

Back 2 spaces

**✘ Eco Horror**

You leave the games console on standby overnight

Miss a turn

**✘ Eco Horror**

You put the dishwasher on to wash one plate

Back 1 space

**✘ Eco Horror**

You leave the hot tap dripping

Back 1 space



## Energiser

Jump up and down to get warm



## Energiser

Squeeze all your muscles as tight as you can



## Energiser

Run around in a circle



## Energiser

Do 'the twist' (fast dance)



## Energiser

Count from 1 to 30 as fast as you can



## Energiser

Do an impression of a happy dog with a waggy tail



## Energiser

Name 5 things that use electricity



## Energiser

Name 5 items of clothing that can keep you warm



## ECO WARRIOR CARDS

✓ **Eco Warrior**

You only fill the kettle enough for the drink you are making

Forward 2 spaces

✓ **Eco Warrior**

You switch off your bedroom light when you go downstairs

Extra turn

✓ **Eco Warrior**

You have a really fast shower

Forward 3 spaces

✓ **Eco Warrior**

You are cold so you put on a jumper to keep warm

Forward 2 spaces

✓ **Eco Warrior**

You dry your clothes on the washing line

Extra Turn

✓ **Eco Warrior**

You help defrost the fridge freezer

Forward 2 spaces

✓ **Eco Warrior**

You replace your old light bulbs with energy saving bulbs

Forward 3 spaces

✓ **Eco Warrior**

You switch off TV at the plug when you go to bed

Forward 2 spaces

✓ **Eco Warrior**

You block the draft coming in under the back door

Forward 3 spaces

✓ **Eco Warrior**

You switch off games console at the plug when you go to bed

Forward 2 spaces

✓ **Eco Warrior**

You walk to school instead of going in the car

Extra turn

✓ **Eco Warrior**

You turn the heating down a little bit

Forward 3 spaces and extra turn

# WORKING TOGETHER

## ACTIVITIES AT HOME

### Dear Parent/Carer

Your child has been working hard on the Values, Money and Me programme. She/he is bringing this activity home in the hope you can do some learning together that they can take back into school.

The unit we have been working on is called Costing the Earth. The lessons in this unit are:



### Lesson 1 Costing the Earth

Using the click and pop-up pictures, children explore the ways in which they can contribute to saving energy around the home (and even at school). Each pop-up offers advice on how they can make small changes that all add up to a big saving.

This is a must for all budding eco-warriors.

*We would like you to do the following activities if it is practical (or more if you wish)*

- Try the Costing the Earth activity online with your child.

This can be found at: [www.valuesmoneyandme.co.uk/teachers/costing-the-earth](http://www.valuesmoneyandme.co.uk/teachers/costing-the-earth)

- Read the Saving Energy Factsheet.
- Add your family contribution to your child's Pledge to Save Energy sheet to make a family pledge.
- Make and play the Costing the Earth board game with your family.

### Lesson 2 I Pledge

Children will consider individual actions they can take to reduce energy waste around the home and the school environment. Children will work collectively to create an energy saving action plan for the class or whole school.

### Lesson 3 Costing the Earth Board Game

Using a simple board game, children explore the concepts contained in the click-on activity through a different format. You will need to print out, cut up and prepare the game elements and you will also need dice.

