
Soirbheas

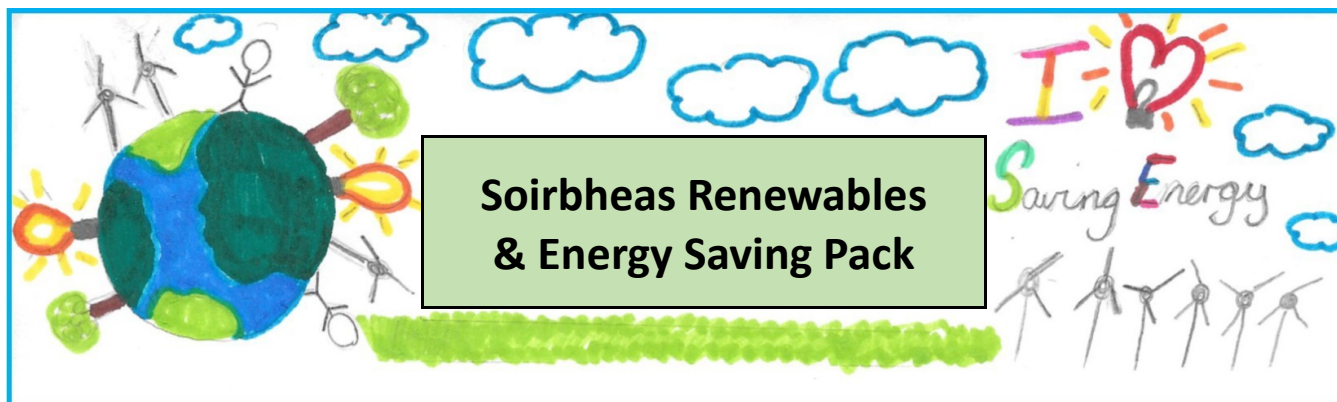
Investing in the communities of Glen Urquhart & Strathglass

Renewables & Energy Saving Education Pack



Registered Scottish Charity: SC041340
Company limited by guarantee: SC356487

Registered office: 4th Floor Metropolitan House 31-33 High Street Inverness IV1 1HT



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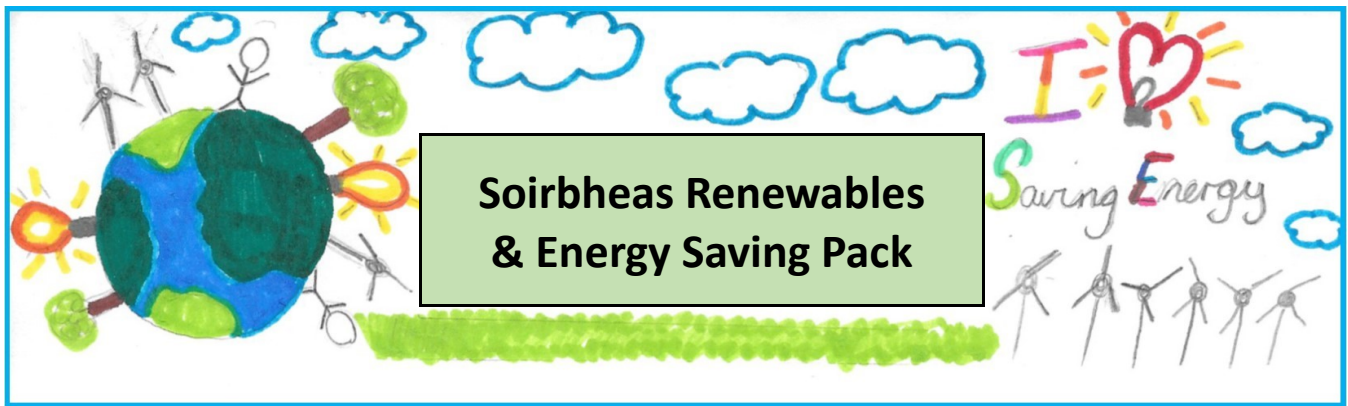
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Background

Soirbheas is a registered charity formed in 2009, whose aim and objectives are to strengthen and support the communities of Glen Urquhart and Strathglass, through investment in local renewable energy schemes.

There are a number of key objectives that Soirbheas is committed to delivering:

- Reduce fuel poverty
- Make the region greener
- Enhance the attractiveness of the area for economic growth and investment
- Improve the quality of life for existing residents

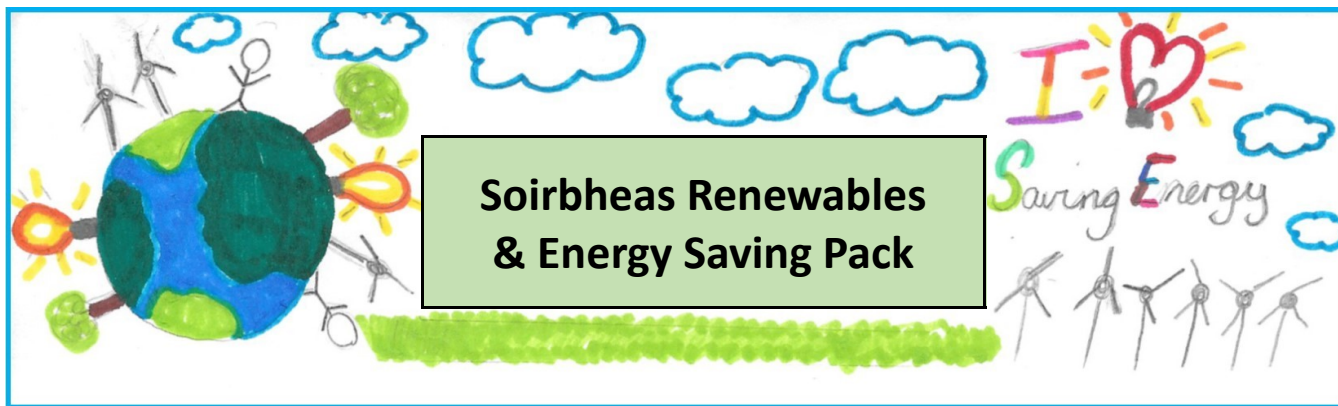
Presently we have invested in one wind farm and are looking at a number of other options including micro hydro developments.

The money from the investment is distributed back into the community via the Soirbheas community grants. The grant programme was launch April 2014; there are currently two grant programmes:

- Tier 1 (up to £500)
- Tier 2 (up to £10,000)

There are plans to launch two new grant schemes including an Apprenticeship Grant Scheme for young people and Tier 3 Grants (over £10,000) when enough funding is available.

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Aims of the Pack

The purpose of this educational pack is to provide the staff and pupils at your school with information, fun activities and support to promote increased awareness of energy saving and renewables. With children (and possibly staff!) gaining knowledge that can benefit energy saving at school and be transferred to their homes.

The pack has been designed to be as flexible as possible to allow you to be able to plan for different amounts of time available and levels of ability within the school. The activities can be stand alone or be part of longer project which may be part of day, week or term length projects. They activities also fit well with Eco School and can also be used for homework sheets.

Some of the activities are best suited to younger pupils and others go into more detail and are applicable to older pupils. The activities are listed in four stages, but please use your judgement on who you think each one is best suited for your class.

Please remember this pack is just a guide. There are also suggestions of other resources at the back to give you more ideas. We hope to add to this pack from time to time and will let you know when we do this.

We would also like to encourage the learning to be extend to the home, to encourage the family as a whole to get involved in energy saving (see letter home to parents).

If you would like a school visit from your Community Development Officer to delivery a session with your class please contact: carolmasheter@soirbheas.org

To download a copy of the pack please visit our website: www.soirbheas.org

We hope you all have fun!

Thank you to Glenurquhart Primary pupils who contributed images to the pack.



Dear Parent/Carer

Renewables & Energy Saving Education Pack

With the aim to promoting Eco awareness Soirbheas, the local community benefit charity Soirbheas have developed the above pack for use in schools. The aim is to provide information, activities and support to pupils, staff and families to reduce their carbon emissions.

The pack is a collection of fun, interactive sessions to help everyone gain knowledge to benefit both school and home. This may involve your child doing some activities with you at home and we would appreciate your support with this.

I visited your school today to provide an introductory session to pupils and staff. During the next few months and longer term we hope the children will be able to put what they have learned into practice to encourage positive energy reduction steps in their own homes!

You can visit our website for more information or to access the full education pack and attached is an information sheet with some helpful websites and resources you can use to support your whole family to save energy and reduce your household bills.

Soirbheas also work in collaboration with Home Energy Scotland who have a team of specially trained home renewables advisors who can provide guidance tailored to your individual circumstances and advice on solid wall insulation.

As part of this free service they can provide in-depth advice over the phone or visit your home. For more information visit energysavingtrust.org.uk/free-home-visits or call 0808 808 2282.

If you have any queries or feedback about the pack please do not hesitate to contact me at info@soirbheas.org or call 0751 445 2783.

Kind regards

Carol Masheter

Soirbheas Community Development Officer

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Soirbheas Renewables & Energy Saving Pack

CLASS ACTIVITY IDEAS

Level 1: Task A1

Eco Colouring In

Aim of the Activity: For young children begin to think about renewable energy and energy saving.

Equipment: Print off copies of the sheets provided, Ref: A1

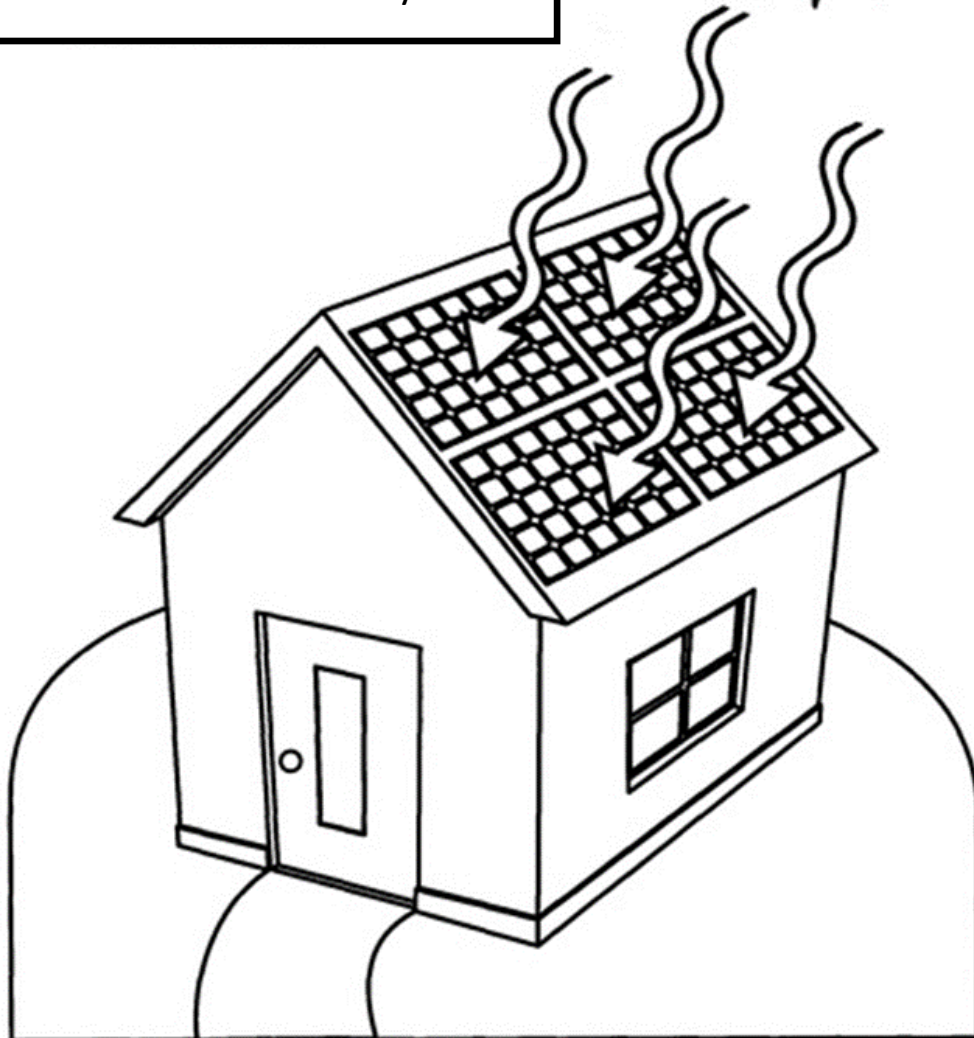
Suggestions: To use this exercise as part of a wider discussion on the use of renewable energy in our area and beyond.

Solar Panels

There are two types of solar panel - Photovoltaic (PV) solar panels or solar thermal—water heating panels. PV solar panels or “photovoltaic cells” turn sunlight directly into electricity using chemicals inside the individual cells. Solar Thermal heating panels can be used on people’s homes to directly heat up water for washing and heating in the house. This works as water is pumped through pipes in the solar panel. The panels are black so that they can absorb more heat.

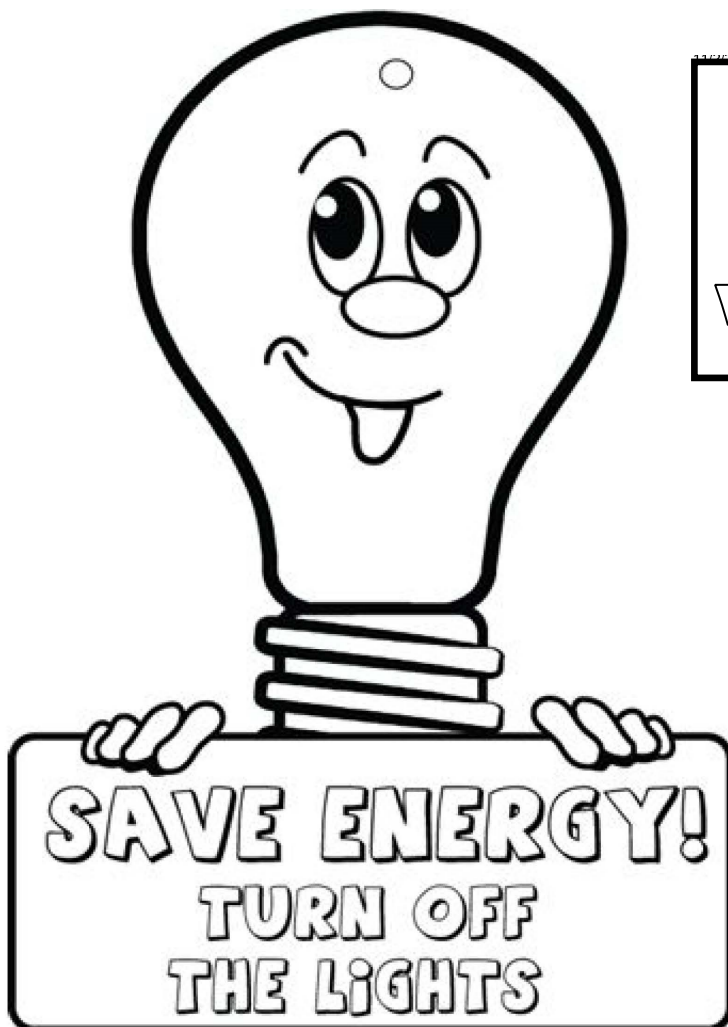
Fact

The sun releases more energy in one hour than the world uses in an entire year!





SAVE ENERGY!
REPLACING LIGHTBULBS
WITH LOW ENERGY LIGHT

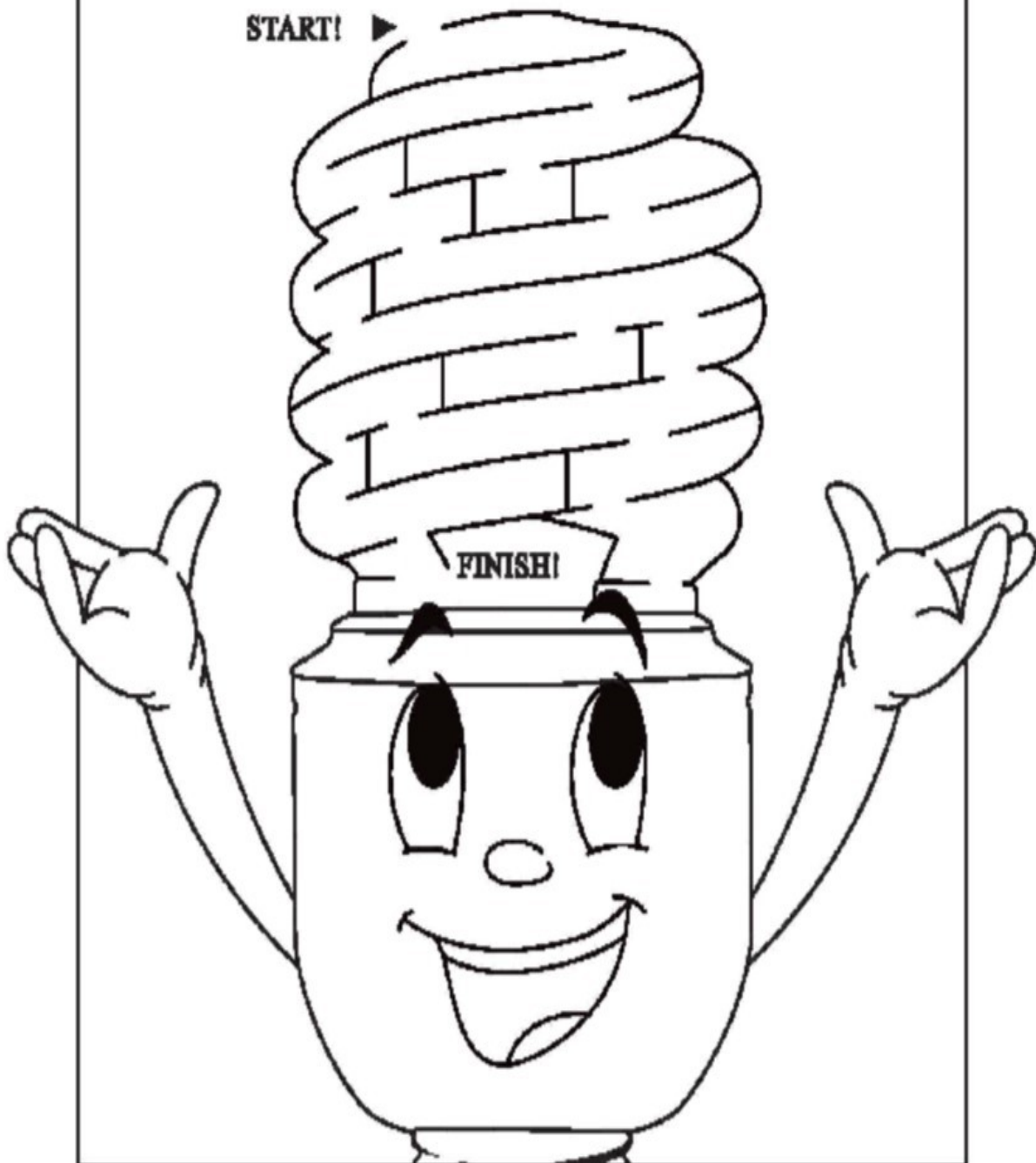


Energy Saving Maze

Activity Sheet: Task A3

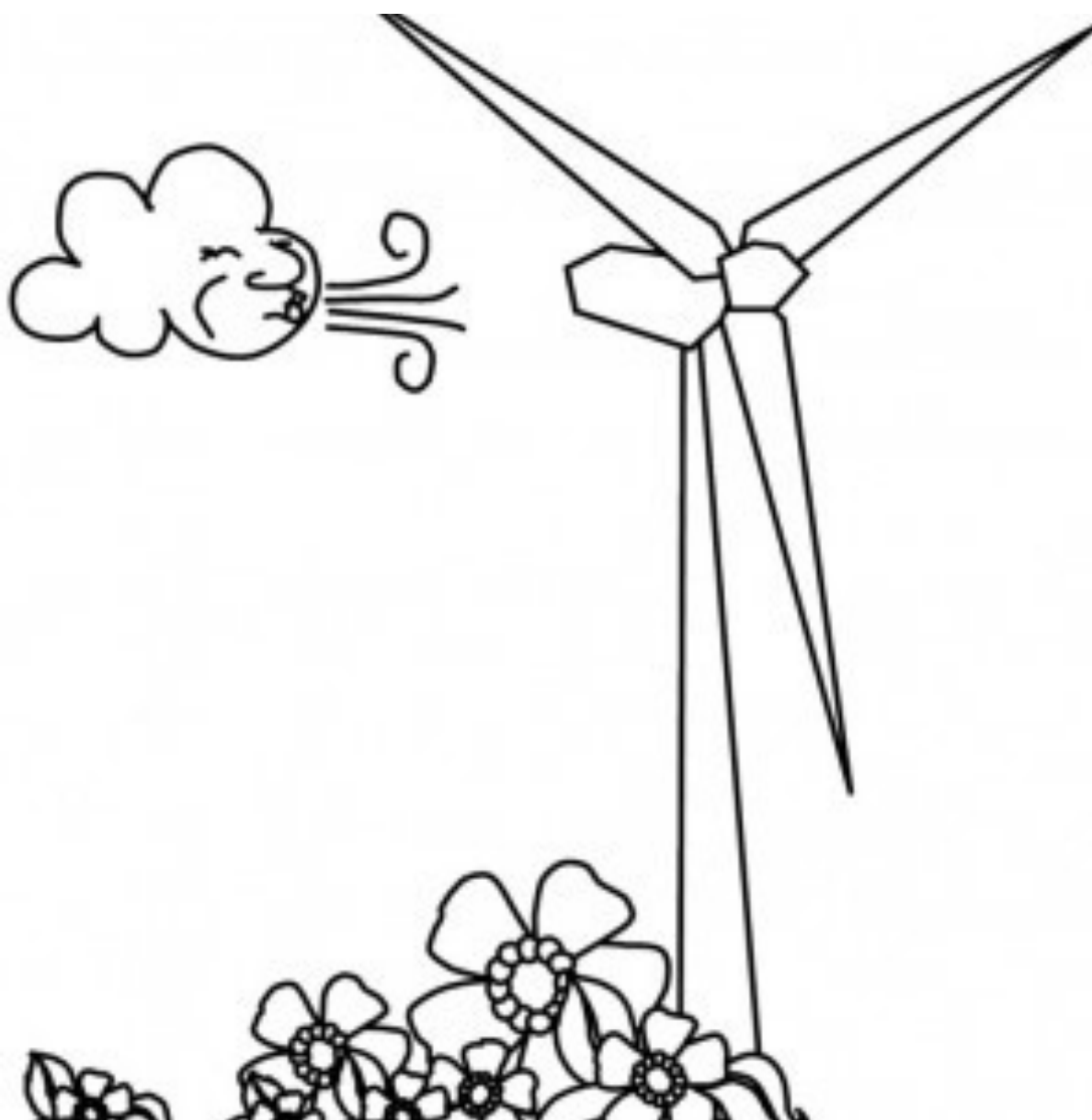
A- Maze Your Mind!

Low Energy Light (LEL) bulbs use 70% less energy than regular light bulbs. They also last up to 10 times longer! Follow the maze through the LEL to become an energy saving champion.



Wind Turbines

In 2013 2.6% of the world's energy was produced by wind power. Wind turbines consist of 2 or 3 blades on the top of a tall pole. They need an average wind speed of 25km per hour but can turn at over 100 mph! The turbine is connected to a generator and this is where the energy can be turned into electricity. A group of wind turbines is called a wind farm.



Soirbheas Renewables & Energy Saving Pack

CLASS ACTIVITY IDEAS

Level 1: Task A2

Woeful Wasters – Introduction to Energy Saving

Aim of the Activity: To start to introduce young children to the idea that they can help to save energy in their homes.

Materials: Use the sheet ref: A2

Instructions: Show the children the pictures below and get them to say whether they think it demonstrates a good or bad thing.

Woeful Wasters - Introduction to Energy Saving

Activity Sheet: Task A2

Do you think the following are good or bad things to do in your house? Bad things use more electricity than you need to.

1. Turning the light off when you leave a room



2. Leaving the Fridge Door open



3. Filling the kettle with water when you are only need a little



5. Not leaving the tap running while you are brushing your teeth



4. Forgetting to shut the front door on a cold day



2. Leaving the Television on when no-one is watching

Soirbheas Renewables & Energy Saving Pack

CLASS ACTIVITY IDEAS






Level 1: Task A3

Super Spotters – Introduction to Energy Saving

Aim of the Activity: To start to introduce young children to factors that can help to produce, retain or lose heat and energy in their own homes

Materials: Use the sheet ref: A3

Instructions: Provide each pupil with a sheet A3 and ask them to count the number they have in their house.

Super Spotters	
Activity Sheet Ref: A3	
Item	How many are in your house?
<p>Light Fittings</p> 	
<p>Single & Double Glazed Windows</p> 	<p>Single Glazed:</p> <p>Double Glazed:</p>
<p>Open Fire</p> 	
<p>Outside Doors</p> 	
<p>Televisions</p> 	

PLEASE COMPLETE THIS **WITH** AN ADULT AND TAKE IT BACK TO SCHOOL TO TALK ABOUT WITH YOUR CLASS!

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CLASS ACTIVITY IDEAS

Level 2: Task B1

Renewables Word Search

Aim of the Game: For children to find the names of different sources of renewable energy in the grid

Equipment: Print off copies of the sheet provided ref: B1

Suggestions: To use this exercise as part of a wider discussion on the use of renewable energy in our area and beyond.

Eco Word Search

Activity Sheet Ref: Task B1

Renewable Energy Sources - Word Search

C O V U Y Z K N L N U S G J P
N I O N G O J M I L R V R P C
I E R G O U T A G A G E C Z C
Q B L T I S B Z Z P S E S E I
F C A S C R A X V E D Z N Z W
L E M D O E B V L A I K U S T
T M R R O L L B I O M A S S I
Y O E V M O A E C N A C X O D
X M H Q T W W R O F G Z I C A
E S T W E K I Y E R W G N T L
N H O N O E P L O G D J E H R
R T E H V F P N U K C Y W H V
H R G L I W B W E H H I H D W
B V F T B U H U S Y N U S S Y
D W C L C A R U A D E V A W M

BIOMASS
GEOTHERMAL
HYDROELECTRIC
RENEWABLES
SOLAR
TIDAL
WAVE

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CLASS ACTIVITY IDEAS

Level 2: Task B2

Finish the Eco Sentence

Aim of the Activity: For children to complete the sentences by matching up the beginning with the end.

Equipment: Print out the sheet ref: B2 (children to complete individually or in pairs)

Finish the Eco Sentences

Activity Sheet Ref: B2

You have finished watching TV.....

....tell them to only boil the amount they need

Its cold outside.....

...make sure you get an energy saving one to replace it

Someone boils the kettle.....

.....so turn the light out

A light bulb has blown.....

....make sure the windows are closed and the outside door is shut

You are the last person to leave a room.....

.....So now turn it off (making sure it's not on Standby!)

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CLASS ACTIVITY IDEAS

Level 2: Task B3

Eco Whispers

Aim of the Game: Children should be put into small groups and arranged in a circle. Show or whisper the first child one of the words below and ask them to pass it round the circle from one child to the next. They need to whisper it quietly so no-one else hears. Then ask the last child in the circle to repeat out loud the word they have heard. Explain to the children what the correct word should have been and answer any questions that arise.

Equipment: Cut out the words in the boxes on the sheet provided, Ref: B3

Suggestions: Try the test word 'Glen Affric' first so everyone gets the idea

Solar Panels

Hydro Power

Wind Turbines

Renewable Energy

Fuel Poverty

Climate Change

Fossil Fuels

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CLASS ACTIVITY IDEAS

Level 2: Task B4

Energy Eagles – Introduction to Energy Saving

Aim of the Activity: To start primary children thinking about energy usage in their homes

Materials: Use the sheet ref : B4

Instructions: Provide each pupil with a sheet below and ask them to count the number they have in their house.

CLASS ACTIVITY IDEAS

Level 2

Activity Sheet Ref : B4

PLEASE TAKE THIS SHEET HOME AND COMPLETE WITH AN ADULT.

Take a walk round your home and choose one of the following rooms:

- **Livingroom**
- **Kitchen**
- **Your bedroom**

Circle which one you have chosen then list below all the items in that room that use electricity:

Once you have done that list any things you think you could do to make that room more energy efficient (e.g draw the the curtains, use draft excluders, etc)

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CLASS ACTIVITY IDEAS

Level 3: Task C1

Energy Quiz

Aim of the Game: A team game for older children to think about Energy saving.

Equipment: Print copies of the question sheet provided for each team (ref C1)

Instructions: Split your class into mixed ability teams of approximately 5 children. Give them 15 - 20 minutes to complete the sheet and then go through the answers with them.

Suggestions: To use this as an opportunity to talk about Renewable Energy and Energy Saving

Energy Quiz
Activity Sheet Ref: C1
Question Sheet

Team Name _____



Lighting

Fact - A household still using an old fashioned 60W light bulbs in the main living rooms, could save £5 for every bulb replaced with a low energy bulb. Turning off lights when they are not needed could save around £15 on annual energy bills.

Q1. How much does the average UK household spend a year on electricity for lighting the home?

A) £30 B) £65 C) £86

TV's & Computers

Fact -In general smaller TVs use less energy. A new TV uses about 70% less energy in standby mode than one bought before 2007.

Q2. What uses more energy? A) Laptop B) Desk top computer C) Tablet

Water Heating

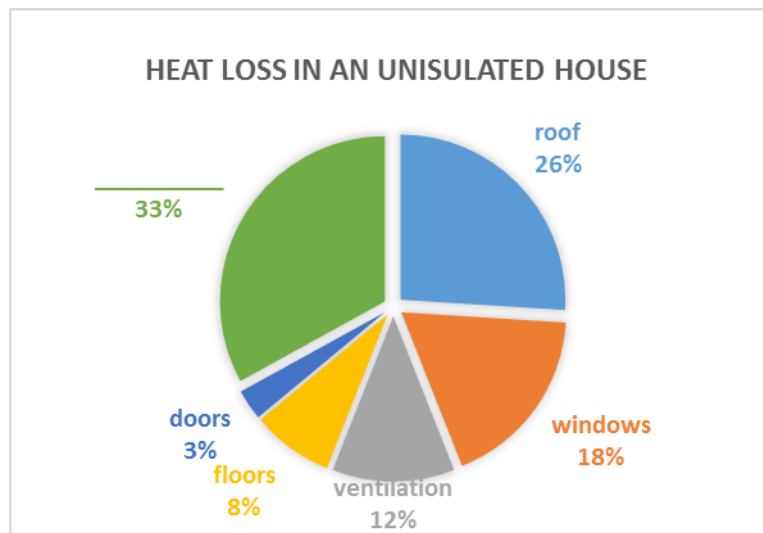
Fact - If everybody in a four person family replaces one bath a week with a 5 minute shower it could save around £15 on energy bills.

Q3. Is it more energy efficient to have a bath or a shower? A) Bath B) Shower

Heat Loss

Fact - Insulating our homes helps to prevent heat loss and saves energy.

Q4. The chart below shows the heat loss from an uninsulated house. There is a word missing from _____ 33% is it? A) Chimney B) Letter box C) Walls



Fossil Fuels

Fact - Both coal, oil and natural gas are called "fossil fuels" because they were formed deep under the earth during dinosaur times. The problem is that fossil fuels can't be replaced - once we use them up, they're gone forever. Another problem is that using fossil fuels causes pollution which contribute towards climate change.

Q 5. What do you think we use "fossil fuels" for? Circle all that you think are correct

Making clothes	Getting rid of our rubbish	Running cars	Producing food
Heating water transport	Heating our homes	Making electricity	Running public
Making plastics	Tarmac for our roads	Producing make-up	Making medicines

Renewable Energy

Fact - Why don't we use renewable energy all the time? Unlike natural gas and coal, we can't store up wind and sunshine to use whenever we need to make more electricity. If the wind doesn't blow or the sun hides behind clouds, there wouldn't be enough power for everyone.

Q 6. Where does renewable energy come from? Match up the 2 columns

Hydro	Underground
Turbines	Water
Solar	Wood
Bio Mass	Sun
Geothermal	Wind

Climate Change

Fact - The word 'climate' means the average weather conditions over a number of years; including temperature, wind and rainfall. When we talk about climate change, we mean the unusual changes in the Earth's weather patterns that have happened over the last 100 years. When all temperatures are taken together, we would expect any ups and downs in the year to cancel each other out and the average temperature to stay roughly the same from one year to the next. However, scientists have found that the temperature is not staying the same and our planet is actually getting warmer each year. This is called 'global warming' and it is a major part of climate change.

Q7. What can we do to help prevent climate change? List 3 actions below that you think would help prevent climate change.

1. _____
2. _____
3. _____

Energy Quiz
Activity Sheet Ref: C1
Answer Sheet

1. £65
2. Desk Top Computer
3. Shower
4. Walls
5. All
6. Hydro → Water, Turbines → Wind,
Solar → Sun, Bio Mass → Wood, Geo-
thermal → Underground
7. Answer should be judged by the
teacher if appropriate

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CLASS ACTIVITY IDEAS

Level 3: Task C2

Energy Saving Crossword

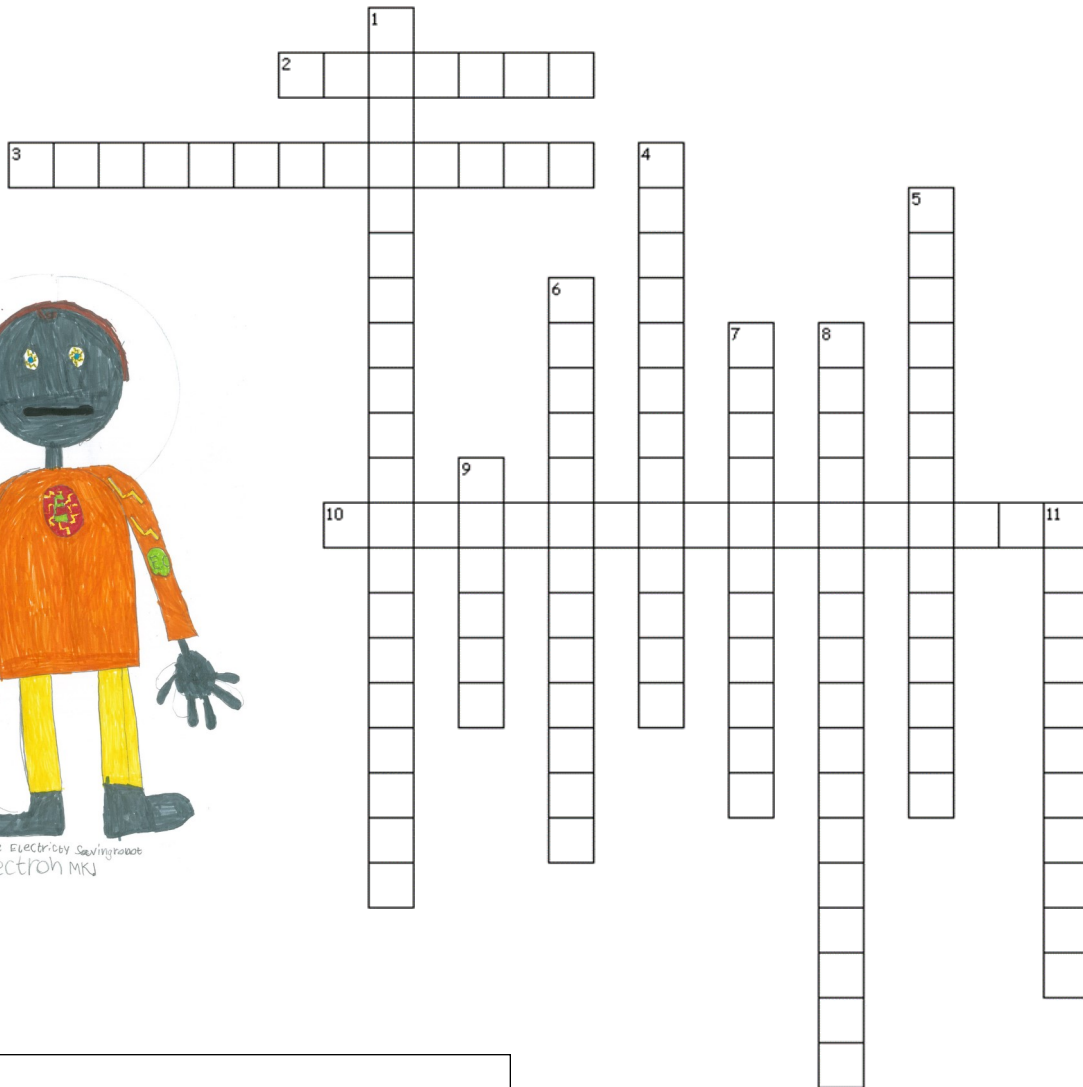
Aim of the Activity: To increase knowledge of the ways we can all save energy. Children can work individually or in small groups. Help to find the answers can be found on the internet (e.g <http://www.cse.org.uk/advice/energy-saving-tips/tip-house>)

Equipment: Print copies of the sheet provided for each individual (C2)
The answers can be found on sheet ref: C2 Answers

Suggestions: To use this as an opportunity to talk about Energy Saving in the home and school

Energy Saving Crossword

Activity Sheet Ref: C2



Across

- 2. Leaving your TV on this still uses electricity (7)
- 3. You should do this when leaving a room (4,3,6)
- 10. Use these to light your house or school (6,6,5)

Down

- 1. Stops heat escaping through the walls (6,4,10)
- 4. Your windows are seeing double (6,7)
- 5. Put this in your loft (4,10)
- 6. A way of checking what electricity you are using (6,7)
- 7. Best way to dry your washing (7,4)
- 8. Stop heat escaping by using these (7,5,5)
- 9. The best rating for your appliances (1,5)
- 11. These pre-heat your water or generate electricity (5,6)

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CLASS ACTIVITY IDEAS

Level 3

Answer sheet: C2 Answers

Across

- 2. Leaving your TV on this still uses electricity—**STANDYBY**
- 3. You should do this when leaving a room— **TURN OFF LIGHTS**
- 10. Use these to light your house or school—**ENERGY SAVING BULBS**

Down

- 1. Stops heat escaping through the walls—**CAVITY WALL INSULATION**
- 4. Your windows are seeing double—**DOUBLE GLAZING**
- 5. Put this in your loft— **LOFT INSULATION**
- 6. A way of checking what electricity you are using—**ENERGY MONITOR**
- 7. Best way to dry your washing—**WASHING LINE**
- 8. Stop heat escaping by using these—**DRAUGHT PROOF DOORS**
- 9. The best rating for your appliances—**A RATED**
- 11. These pre-heat your water or generate electricity—**SOLAR PANELS**

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CLASS ACTIVITY IDEAS

Level 3: Task C3

Eco Spot the Difference

Aim of the Activity: For older children to look at the two pictures and discuss in small groups the differences between the pictures and decide which is a more waste free lifestyle.... How many energy or money saving tips can they spot.

Equipment: Print off copies of the sheets provided, Ref : C3

Suggestions: To use this as an opportunity to start talking about Renewable Energy



Spot the Difference



CLASS ACTIVITY IDEAS

Level 3: Task C4

Debating Topics

Aim of the Activity: To encourage older children to research and discuss the sometimes controversial area of renewable energy.

Instructions: Create two teams of about 3-5 pupils each and decide on the topic for the debate. Give each team a side to research and argue for (one for: the Proposers and one against: the Opposers). This can take as much time as you think is necessary. When they are ready to debate, decide on a Chairperson from the rest of the children. This person will try to control the debate and ensure the rules are kept to! The rest of the class can be the audience.

Suggested Structure of a debate:

1. The Chair opens the debate by reading the topic question (also known as the motion)
2. One person from the Proposers team, speaks in favour of the motion followed by someone from the Opposers who talks against it.
3. Following this other pupils from each team can take a turn to make a speech.
4. Then the chair can open the motion 'open to the floor' and anyone in the audience may now speak, either for or against the motion
5. In order to be heard, anyone who wishes to speak raises their hand and waits for permission from the chair.
6. The chair then asks the Opposer side to give a brief summary of why people should vote against the motion.
7. The Proposer is then asked to give a brief summary of why people should vote for the motion.
8. Finally, a vote is organised by the Chair. This can be done publicly with a show of hands or by a private ballot.
9. The chair announces the result and declares that the motion is either passed or defeated.

Debating Topics
Activity Sheet Ref: C4
Ideas Sheet

Topic 1:

Is Global Warming really happening? Yes or No?

Topic 2:

Is renewable energy as reliable as Fossil Fuels? Yes or No?

Topic 3:

Does energy saving really help the environment? Yes or No?

Topic 4:

Do we really need to worry about saving water? Yes or No?

Topic 5:

Is it our role to save the planet? Yes or No?

CLASS ACTIVITY IDEAS

Level 3: Task C5

Energy Saving Bingo

Aim of the Activity: To remind older children to get ideas how to be energy efficient and home and school

Instructions: Ask the children to design a game of bingo for the younger children in the school. They can try to come up with some eco slogans for the different numbers and design a pictorial baseboard to go along with the game.

Equipment: Bingo balls and machine (this can be a children's toy or use an on-line version) Bingo Sheets, pens

CLASS ACTIVITY IDEAS

Level 3: Task C6

Insulating Properties Demonstration

Aim of the Activity: To demonstrate how different materials are good or bad insulators of heat.

Materials: Collect a range of natural and manmade materials. Something metal (e.g a metal ruler, saucepan, etc), a stone, a piece of wood, some polystyrene

Instructions: Pass the above materials round the group. Ask the children to touch each item and decide what they think it made of and decide whether they item feels warm or cold. The metal and stone should feel cold to the touch. This is because they are good conductors of heat. The wood and polystyrene feel warm to the touch indicating they are insulators. Ask the children to:

- Put the materials in order of insulation value, ie. Best to worst
- Talk about foil that is a metal but the shiny-ness is used to reflect heat back into buildings.

Think of other building materials that are good at keeping in the heat; Straw, wool, rockwool, plasterboard, ...

CLASS ACTIVITY IDEAS

Level 3: Task C7

Eco Pairs

Aim of the Game: Children should be put into small groups and arranged in a circle. Show or whisper the first or second part of the word to one child and ask them to pass it round the circle from one child to the next. They need to whisper it quietly so no-one else hears. Then ask the last child in the circle to repeat out loud the word they heard. If correct then they need to guess what the matching word is.

- Explain to the children what the correct word should have been and answer any questions that arise.

Equipment: Cut out the words in the boxes on the sheet provided, ref: C7

Suggestions: Try the test word 'Glen - Affric' first so everyone gets the idea

Eco Pairs
Activity Sheet Ref: C7
Words

Solar Panels

Hydro Power

Wind Turbines

Renewable Energy

Fuel Poverty

Climate Change

Fossil Fuels

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CLASS ACTIVITY IDEAS

Level 3: Task C8

Awesome Energy Auditors – Introduction to Energy Saving

Aim of the Activity: To start older primary children thinking about energy usage in their homes and how it can be improved

Materials: Use the sheet ref: C8

Instructions: Provide each pupil with a sheet below and ask them to count the number they have in their house.

CLASS ACTIVITY IDEAS

Level 3

Activity Sheet Ref: C8

PLEASE TAKE THIS SHEET HOME AND COMPLETE.

Question	Answer	In terms of energy saving do you think this is? GOOD / MEDIUM / POOR
What type of heating/hot water boiler do you have?		
How old is your boiler?		
How many fluorescent light bulbs do you have?		
Do you leave your TV and other devices on standby when they are not being used?		
Do you have any draft excluders in the house (e.g under doors)		
Is your loft insulated?		
When you feel cold, do you turn up the heating or put on a jumper?		
Are your windows double or triple glazed?		

CLASS ACTIVITY IDEAS

Level 1-3: Task D1

Eco Corners – Yes & No

Aim of the Game: To encourage children of all ages to think about ways to be more environmentally friendly and work as a team.

Equipment: Cut out the words in the boxes on the sheet provided (ref: 4-1-1-0615 & 4-1-2-0615), The Question Sheet (ref 4-1-3-0615) & A baton or Bean Bag for each team.

Instructions: Split the class into teams (of up to 12). Standing the children in a line facing the YES and No signs pinned to the wall. Give the first child in each team a baton or bean bag. Read out one question at a time and ask the pupil to make their choice of answer - YES or NO by choosing the corner. The read out the answer and an explanation. The child return to the group then passes the baton to the next member and goes to the back of the group. Repeat with next question. You can keep scores for the teams and for younger children give them the options to ask/discuss the answer with their peers.

YES

NO

Eco Corners – Yes or No
Activity Sheet Ref: D1
Questions and Answers

Do Solar panels work at night? NO – Both types of Solar PV and Thermal need sun-light to work.

Is wood a renewable fuel? YES – some trees grow much quicker than others like willow which makes it a good renewable source but we do have to keep planting more trees to replace what we cut down.

Do Solar Thermal panels heat water? YES – the water is heated then stored in a large tank.

Are fossil fuels used to make renewable energy? NO – Renewable energy is made from water, wind, sun, waves and wood.

Does filling the kettle with only as much water as you need save money? YES – heating water is expensive so only heating what we need will save money

Do you save fuel if you walk or cycle instead of using the car? YES – Walking and cycling are both the best way to cut down on carbon emissions that come from petrol and diesel.

Does insulating your loft save energy? YES – insulation helps to keep cut down heat loss so saves energy and money.

Water is free, so can we use as much as we want? NO – Most homes are on a mains water supply which needs to be treated and the piped to our home so we should do what we can to save water.

Do Solar PV panels make electricity? YES – They convert sunlight to electricity.

Do you save energy by leaving your TV on standby instead of switch it off? NO – It's still using power on standby, if you switch it off at the wall it doesn't use any power at all.

Does insulation increase the speed a home heats up? YES - Because it stops heat loss particularly when the outside temperature is low.

Can we save money by drying clothes on the washing line instead of using the tumble drier? YES – Tumble drier use electricity but the wind is free.

Does reducing, reusing and recycling save energy? YES – by cutting down on the waste we produce, reusing and recycling more we save money and energy.

CLASS ACTIVITY IDEAS

Level 4: Task D2

Warm Up / Cool Down!

Aim of the Activity: A fun activity to measure room temperature and how we feel - suitable for all ages.

Materials: Use the sheet ref (D2)

Instructions: Copy the sheet and work through the activities with a group of children

Warm Up / Cool Down
Activity Sheet Ref: D2

(A) Start by recording the current room temperature as it is and check where it is on the chart below.

Start temperature of room _____

E) End temperature of room _____

°C	Is your room the right temperature?
27 - 26	T00 HOT – Reduce Heat
25 - 24	
23 - 22	
21 - 20	Comfortable – Don't change anything
19 - 18	
17 - 16	
15 - 14	Cool – Turn up heat
13 and under	Cold - Danger

(B) Ask the group how they are feeling at the moment it terms of comfort? eg take a hand count of who is too hot, too cold or just right

How do you feel	Start (B)	End (E)
Very hot		
Too warm		
Just right		
A bit chilly		
Very cold		

(C) Then have a chat about ideas about how they group could warm up or cool down

Too hot	Too cold
Drink a cold drink	Put on a jumper

Warm Up / Cool Down

Activity Sheet Ref: D2 (continued)

(D) Now do an activity to either cool down or heat up (depending on the weather or room temperature)

To cool down - you could go outside or drink a glass of iced water or put your hands in a bowl of cold water for a few minutes.

To warm up - play and active game e.g. Do 10 star jumps, hop around the room or put lots of outdoor clothing on or wrap up in a blanket. Or choose one of the suggestions from your discussion.

(E) After the activity ask the group how they feel temperature wise and record any change with a new hand count. Also check to see if there has been a change in the room temperature - have a chat about any changes and what this tells us about keep warm or cool and how this could save energy you could also ask the children about the heating and lighting they have at home as a home work activity.

For older Children – You can extend this activity over several days using the Temperature Recording Sheet (see resources) to record changes for maths statistics.

CLASS ACTIVITY IDEAS

Level 4: Task D3

Create an Eco Superhero

Aim of the Activity: A fun activity to help children to understand different natural resources used to make renewable energy e.g Wind, Sun, Water, Waves etc

Instructions: Tell the children you want them to create their own Eco character who's mission is to help make a better world. They can even make up a catch phrase or slogan to go along with their character if they wish. Encourage the children to make their pictures as colourful as possible and to reflect the quality of the renewable resource they have elected to represent.

Materials: See sheet Ref: D3 for an example to show the children



Wind
Woman!

CLASS ACTIVITY IDEAS

Level 4: Task D4

Your Home

Aim of the Activity: This activity is a good starting point to get children to think about their home and energy use habits, it also allows you to build up a visual picture of the sort of house they live in.

Instructions: Use questions on Ref sheet D4. Ask your children to sit on the floor with ideally a bit of space between each one. You will then ask the first question on the sheet. If a child wishes to answer yes to this (or subsequent questions) they should stand up (or put up their hand up if your space is limited). Standing up works well if space allows. For younger children it is easier if they sit back down before you ask the next question to save any confusion. If a child does not know the answer they stay seated. Try and keep discussion to a minimum and make it a quick fun activity. The questions get more difficult as you work down the list. You can add other more challenging questions for older children or adults. This activity works well for all ages.

Materials: See sheet Ref: D4

My Home
Activity Sheet Ref: D4
Questions

Do you live in a village?

Is your house an old house?

Do you have an open fire or stove?

Does your house have a staircase?

Do you have 2 or more outside doors in your home?

Do you have a bath in your house?

Do you have a bath more often than a shower?

Do you heat your water in your home with electricity or oil?

Do you know which one it uses?

If you use electricity to heat you water oil sit down?

Do you have double glazing?

Do you use low energy light bulbs?

Do you have loft insulation?

Does your home use a renewable heating/energy system? (e.g. solar panels, bio mass boiler, log burning stove, etc.)

Soirbheas Renewables & Energy Saving Pack

TEMPERATURE RECORDING SHEET—Ref E1

Monitoring the weather is a great way to collect data for maths projects and to study the changes in seasons and weather patterns.

[illegible]



Other Useful Information & Resources

The Internet has a vast array of information to help you to teach and promote awareness of environmental and energy saving issues. The following websites might help you further:

General Information	http://www.keeptoscotlandbeautiful.org/sustainable-development-education/eco-schools
Information & Activities	http://www.energysavingsecrets.co.uk/greenerkidscategory.html
Information, Puzzles & Activities	http://www.cse.org.uk/thefsource/browse/education-21/puzzles-games-and-activities-326
Information & Activities relating to Energy	http://www.childrensuniversity.manchester.ac.uk/interactives/science/energy/
General Information & Game	http://www.greenerscotland.org/reduce-reuse-recycle
General Information	http://www.greenerscotland.org/saving-energy
Information & activities relating to being greener	http://www.co-operative.coop/green-schools-revolution/