

# SCHOOLS ENERGY AUDIT

## Resource Booklet





Hello! My name is **GREEN FINGER** also known as the Dynamic Digit!

It is my mission to stop energy wasting crimes - maybe you can help me out and be on the look out for things in your school that are wasting energy, stop them and help to improve your energy rating.

D.E.C. Stands for Display Energy Certificate - and to the right you can see an example of one.

They're a bit like the label you'd find on a fridge - but worked out using how much energy the school uses from things like lighting (electricity) and heating (gas or oil).

If your school has a floor area of over 1000 square metres then it should have had a survey done and a DEC calculated. Have you seen it? Do you know what rating the school has?!



Let's get started!



# Lights

Classrooms often have large windows in them to allow the sun's natural light and heat to enter the room. Having the blinds open during the day normally means that it is bright enough to work without having the lights switched on. The electricity for the lights comes from power stations where they burn fossil fuels, this causes pollution.

If it is bright enough without the lights on, we should turn them off!  
(This will also help the schools energy rating)

Now go around the school and record whether the blinds or curtains are open or closed and if the lights are on or off using a table like the one below:

Room	Lights	
Classroom 1	On	Off
Classroom 2	On	Off
Classroom 3	On	Off
Classroom 4	On	Off
Hall	On	Off
Staff Room	On	Off
Library	On	Off

Circle the correct answer for each room like this



# Lights Record Sheet

Day:

Time:




Room			
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
	On Off	On Off	On Off
Assembly Hall	On Off	On Off	On Off
Staff Room	On Off	On Off	On Off
<b>Library</b>	On Off	On Off	On Off
Girls toilets	On Off	On Off	On Off
Boys Toilets	On Off	On Off	On Off




Circle the correct answer for each room.



# How to read your thermometer

Drawing arrows - link up the temperatures next to the thermometer on the left, with the actions on the right.

	°C		
	27	HORRIBLY HOT	GET AN ADULT TO TURN UP THE HEATING
	21	WONDERFULLY WARM	ASK AN ADULT TO TURN DOWN THE HEATING
	15	FRIGHTFULLY FREEZING	THE ROOM IS AT THE RIGHT TEMPERATURE
	12		
	9		

Now take your thermometer around the school and measure the temperatures in each of the rooms. Write them in the table below and say if it's too hot , too cold  or just right 

ROOM	TEMPERATURE	ROOM	TEMPERATURE
CLASSROOM		COMPUTER ROOM	
SCHOOL HALL		CLOAKROOM	
SICK ROOM		CORRIDOR	
OFFICE		STAFF ROOM	
LIBRARY		TOILETS	




## REMEMBER!




Don't touch any hot radiators or the heating controls for the school - always tell a grown up if you think the temperatures need to be changed.



# TEMPERATURES

To be alert and awake at school the temperature of the rooms should be at a certain level, if they are too warm then you are wasting energy and causing pollution and you might feel sleepy. If the temperatures are too cold then you might not feel very well.











Now take your thermometer around the school and measure the temperatures in each of the rooms. Write them in the table below and say if it's too hot , too cold  or just right 

Room	Ideal temperature	Actual temperature	 /  / 
Your Classroom	18 °C		
School Hall	16 °C		
School Office	18 °C		
Medical Room	21 °C		
Boys Toilet	16 °C		
Girls Toilet	16 °C		
Corridor	16 °C		

Now you know what you are doing fill out sheets for each day of the week - Monday to Friday.



















# ELECTRICAL EQUIPMENT AUDIT

Go around the school tallying up the electrical equipment you can find. You might find some of it in the Staff Room and Office as well as the classrooms. When you have finished write the totals in the boxes.



# ELECTRICAL EQUIPMENT COUNT

<b>Room</b>					
<b>Class</b>	8:30	ON OFF	ON OFF	ON OFF	ON OFF
	10:30	ON OFF	ON OFF	ON OFF	ON OFF
	12:30	ON OFF	ON OFF	ON OFF	ON OFF
					
<b>Class</b>	8:30	ON OFF	ON OFF	ON OFF	ON OFF
	10:30	ON OFF	ON OFF	ON OFF	ON OFF
	12:30	ON OFF	ON OFF	ON OFF	ON OFF
					
<b>Class</b>	8:30	ON OFF	ON OFF	ON OFF	ON OFF
	10:30	ON OFF	ON OFF	ON OFF	ON OFF
	12:30	ON OFF	ON OFF	ON OFF	ON OFF
					
<b>Class</b>	8:30	ON OFF	ON OFF	ON OFF	ON OFF
	10:30	ON OFF	ON OFF	ON OFF	ON OFF
	12:30	ON OFF	ON OFF	ON OFF	ON OFF

DAY:



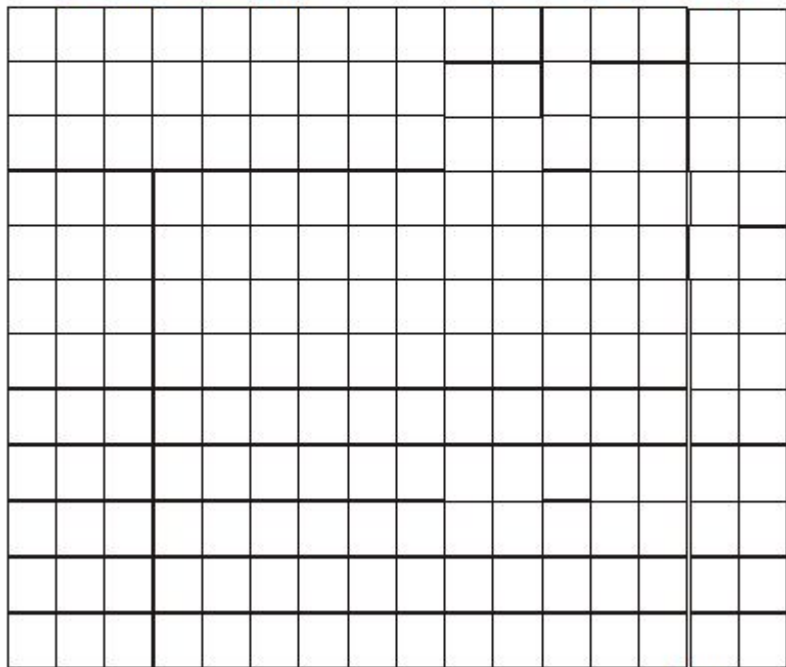
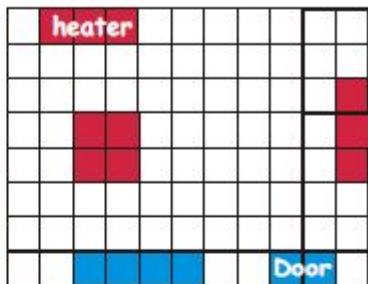


# ENERGY IN YOUR CLASSROOM

Draw a plan (a bird's eye view) of your classroom below.

Show on it things that:

- Use energy - such as heaters, computers, projectors etc
- Let energy out - such as doors, air vents, windows etc



Door

Do the radiators in your classroom have these fitted to them?



Yes

No



# ENERGY IN YOUR CLASSROOM

List the things on your plan that are needed to make your classroom the correct temperature.

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Use the plan you drew to help you find places where energy is being wasted in your classroom. Think about windows, doors, lights, computers & heating.

In each box below write a way you think energy is wasted.



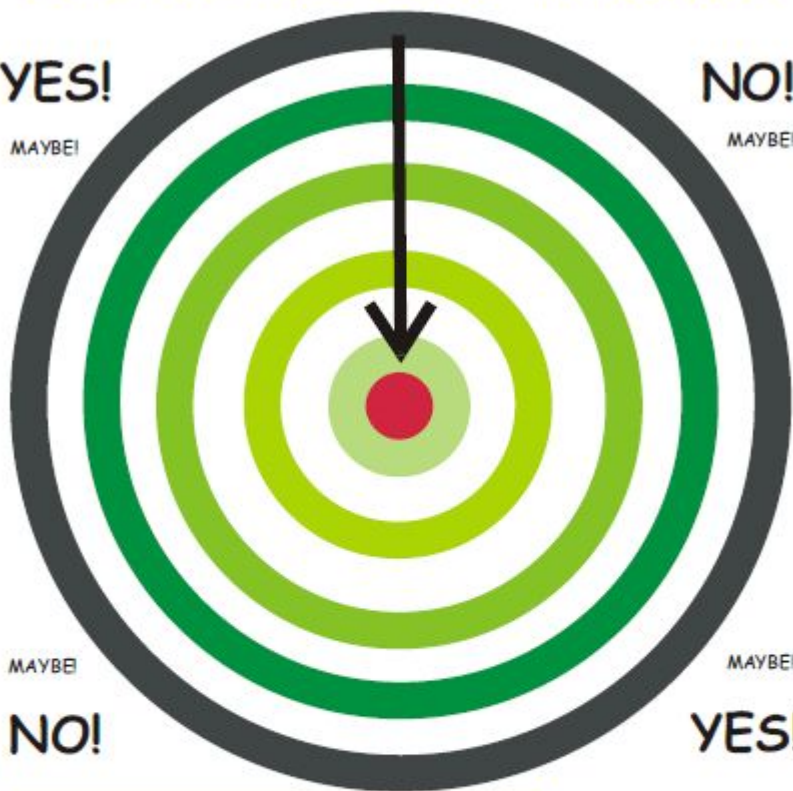
# DID WE HIT OUR TARGET?!

**YES!**

MAYBE!

**NO!**

MAYBE!



MAYBE!

MAYBE!

**NO!**

**YES!**

**AGREE?** Middle **DISAGREE?** Edge  
**Not Sure?** Somewhere inbetween

- I learnt something this week about energy saving
- I enjoyed doing the survey of my school
- This was useful for my school work
- I will use things I learnt today outside of school
- I will use things I learnt today in the future

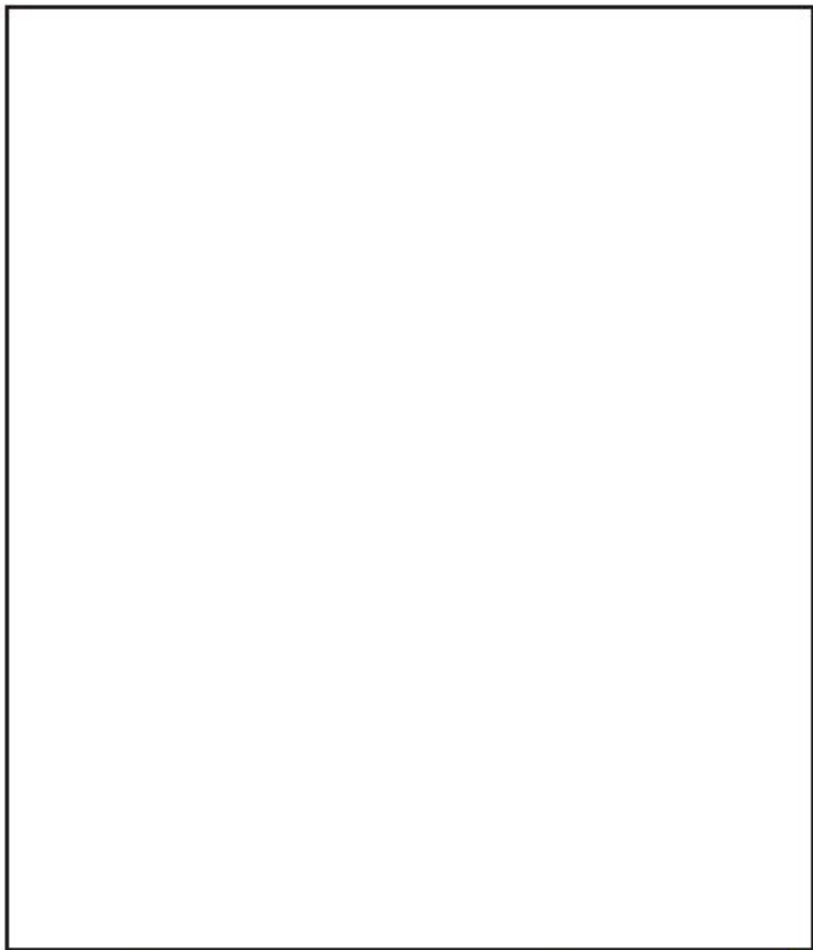
Your school is:

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# DESIGN A POSTER



You can use the box above to design a poster, telling everyone in your school how they can help save energy or maybe you could draw a picture of what you been doing this week or a picture of green finger being an energy superhero!



# WHAT YOU CAN DO AT HOME



Now that you've learnt all about how energy can be saved at school why not tell your parents about it and see what things you can do at home to help save energy and make gas & electricity bills smaller!

Here are some things you and your family can do:



When making hot drinks only boil the amount of water you actually need.



Use the right size pan on the right sized hob - and turn the heat down when the water has boiled. Put a lid on your pans when you're cooking - this will help retain the heat.

Also, vegetables only need to be just covered by the water.



Chop vegetables into smaller pieces so they cook more quickly. This is particularly true of potatoes especially if you are going to mash them anyway!



If you need to reheat something try using the microwave - it uses less energy than the oven.



Even if you have double glazing, closing your curtains when the sun goes down can prevent a lot of energy escaping through the glass and out into the night.



If you feel a bit chilly put on a nice big woolly jumper instead of turning the heating up. Having it too hot wastes energy and cost a lot of money.



Say **GOODBYE TO STANDBY** and turn off electrical equipment when you're not using it.



# TEACHERS FEEDBACK

## Feedback & Evaluation

Both positive and negative comments will be useful for us as we develop our education programme. Please be honest! Thank you.

### Staff Meeting

Was it helpful?

What further information would you have liked?

Would you make any changes to it?

### Assembly

Please rate the following on a scale of 1-5:

(1 = very poor, 2 = poor, 3 = OK, 4 = good, 5 = very good)

#### Content

Appropriateness for age/ability range	1	2	3	4	5
How interesting you found it	1	2	3	4	5
How interesting the students found it	1	2	3	4	5
The amount of information put across	1	2	3	4	5
Everyday relevance to the children	1	2	3	4	5
<u>Style of presentation</u>					
Balance of talking/activity	1	2	3	4	5
Interaction/Involvement of students	1	2	3	4	5

### Data Collection

Do you think the children benefitted from carrying out the survey work?

Yes  No

What was good/bad about it?

How could it be improved?

### Action Plan

Is it useful?

How could it be improved?

