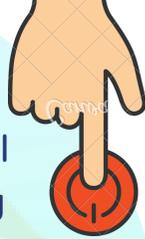


## Standby Slayer

They're tiny. Those bright little lights, all over your house. So tiny that you barely notice them but they're sucking up your energy - standby lights showing that your appliances are neither on, nor off. Harmless? Hardly - although tiny, these energy vampires will end up costing you £££s.

Go on a hunt and see how many of these energy vampires you can find. With adult permission, switch them off at the wall.



## Lockdown? Powerdown!

Take action on energy efficiency at home.

# 5 Day Energy Lockdown Challenge

## Make friends with your Smart Meter

Did you know that your Smart Meter display shows how much energy you're using right now! This very minute.

Can you get it to show zero?  
How low can you go?

See page 2 for some more activities.



## It ain't half hot - not!

Does Mum or Dad's tea get cold before they have a chance to drink it?

See our simple investigation into insulating materials on page 3.



## Catch those Draughts

All doors and windows shut?  
That's a good start.

Follow our instructions on page 2 to make a ridiculously easy no-sew draught excluder to keep those stubborn breezes out.

## Thermostat Ninja

Bet nobody would notice if you turned your home's thermostat down 1°C ... Why not try?  
Get your parents' permission but don't tell them when you're going to do it. If they don't even notice, turn it down another 1°C!



## Energy Sparks

Helping schools fight climate change

## Catch those Draughts

Here's a quick a simple way to keep those draughts at bay. This cute excluder can be used on chilly window frames or at the bottom of doors.

You will need:

- some old tights or socks
- some stuffing (an old pillow, old rags, lots of newspaper)
- a teddy bear looking for a mission



1) Stuff the socks or tights with all your stuffing. Push all the way to the very toes and pack it firmly. If you want a draught excluder that works as a door stop you might want to fill it with uncooked corn kernels or lentils.

2) Leave a space in the seat of the tights for your helpful teddy.

3) Sit the teddy inside the seat of the tights and pull the waist band around it. Alternatively slide the teddy's legs into each sock. You could use a ribbon to tie the tights or socks more tightly on to the teddy.



<https://www.uswitch.com/energy-saving/guides/free-energy-saving-tips/>

Turning down your thermostat 1°C could save you £80 a year!

## Make friends with your Smart Meter

Your Smart Meter is a bit like your school receptionist - it knows almost everything that's going on in your house. There is nothing you can plug in and switch on that it's not aware of.

Your meter display is definitely good looking enough that it shouldn't be hiding in a cupboard. Get it out and plug it in somewhere you can see. Get your mum or dad to switch the display to "Usage now" - that will show how much electricity or gas you're using right now at this very minute.

How much you're paying  
How power is being used



## Energy Sparks

Helping schools fight climate change

Find home learning activities at <http://energysparks.uk/resources>

Did you know the average UK house spends £35 each year keeping appliances on standby. Not much - but it all adds up in terms of pennies and planet warming carbon emissions.

<https://energysavingtrust.org.uk/advice/home-appliances/>

Ready for a game? Switch on every single light in your house. How much electricity is being used? What is the cost? Next go and switch them all off - make sure you don't miss any! Now how much electricity are you using? What's the cost?

Fancy some subtraction? Find the difference between the two - that is how much money it would cost to keep all the lights on for an hour. How much do you think it would cost to keep them all on for a whole day?

What's the lowest you can get your usage to? Can you ever get to zero? Why might this be difficult?

## It ain't half hot - not!

Poor Mum and Dad - what with homeschooling and work and kids at home all the time - there's barely enough time to drink a cup of tea before it gets stone cold! If only there was some way of keeping their delicious beverage cosy for longer?

**Insulation is a material that is used to prevent heat energy being transferred from one area to another. We might use foam in the walls of our house or a woolly jumper to stop heat leaving our bodies. Birds trap air under their feathers and polar bears are insulated by a hefty layer of fat!**

1) First prepare the cups. Wrap one cup in your insulating material. Use tape or an elastic band to fix your insulation to the cup so that it doesn't slip off.

2) Get an adult to help you pour those tasty hot drinks into each cup. Try to make sure both cups have the same amount so the test is fair.

3) Put a lid on both cups. This is to keep the heat escaping from the top! A saucer works well for this - or you could make an insulated lid too!

4) Distract your parent. After an hour or so get your guinea pig (Mum or Dad that is - not Twinkles!) to test how hot each drink is.

**Did the insulation keep the drink hot for longer?**  
Repeat the experiment again with different materials if you like to find out what type of materials are the best insulators. Rather than Dad's tongue, what might scientists use to measure the drink temperature?

You will need:

- adult supervision when using hot water!
- two identical mugs of tea or a cosy drink of your choice
- a saucer or lid to cover each cup
- an insulating material of your choice - fabric, paper, foam, or anything else of your choice
- elastic band or tape



## Energy Sparks

Helping schools fight climate change

Energy Sparks is an online, school-specific energy analysis tool & energy education programme.  
<http://energysparks.uk>

A poorly insulated house could lose 1/4 of its heat through the roof and 1/3 of its heat through its walls! Brrr!  
<https://www.funkidslive.com/learn/curious-kate/curious-facts-insulation/#>



64% of UK households have their thermostat set to 20°C or higher - higher than recommended by the Climate change Committee. By turning your thermostat down just 1 degree could save you £80 a year

<https://www.theccc.org.uk/the-need-to-act/what-can-we-all-do/>