



## Conserve Energy!

### The longest day of the year is coming!



On June 21<sup>st</sup>, we will celebrate **summer solstice!** This is the longest day of the year, because of how many hours of sunlight we will have! In Douglas County, we will have **15 hours and 23 minutes** of sunlight on June 21<sup>st</sup>. The sun will rise at 5:33 AM and not set until 8:57 PM. That's a lot of daylight to enjoy. You don't have to wake up at 5:33 in the morning, but you can definitely do more outside later in the evening without needing the lights on. Even though the sun is 94 million miles away right now, it is still sending down lots of rays for us to enjoy!

Other than playing outside later, there is a lot that we can do with this sunlight to use less electricity in our homes. Even if you're not the one paying the electricity bill every month, you can still help your family out, but conserving energy!

### The power of using a little less electricity

This picture on the right shows Europe at night, with all of bright areas being city lights. Imagine if even just  $\frac{1}{2}$  of those lights were not turned on, there would be so much less light out there. This night light actually confuses wildlife like birds and insects, who lose direction and get confused about where they are going. We can take little steps to reduce the amount of "**light pollution**" that our house lets out.



Follow the activities below to see how you can help you family save energy, money and our environment!

### EXPERIMENT 1: Lights out before 8!

Now that it is lighter longer, see how long your family can run on just sunlight.



#### Instructions:

1. The first thing you want to do is set a **baseline behavior**. This means taking note on what your family is doing normally. Do the lights come on at 7? Or are there certain rooms in the house that are darker and need more light from electricity?
2. You can record in your journal what time lights go on in different rooms at night. I even wrote the times on the light switch with a dry-erase marker to help remember.
3. The next night, see if you can turn on the lights later - spend more time outside, or make sure all of your window blinds are open to let more light in.
4. See if your household can turn on the lights just a little bit later each night up to summer solstice on June 21<sup>st</sup>!

### Experiment 2: Energy Audit

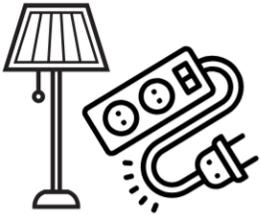
You can do an energy audit on your house, to locate the main places you use electricity, and figure out how to help your family make a plan to use less. This will not only help your energy bill, but also the environment!

#### Instructions:

1. Walk around your house with the energy audit sheet below - you can print it out or just take notes in your notebook!
2. See if your family is doing everything on the list, or if not, sit down together and talk about how you can change your energy-use practices to help your home and your planet!

# @Home Energy Audit

Help reduce the amount of electricity your household uses with these easy steps! You can be the Energy Superhero of your household!



Make sure that all lights are turned off when no one is in the room. You can all switch off power strips when they are not being used! Unplug your devices when they're done charging.



Only run big appliances like laundry machines and dishwashers until they are completely full! This saves water and electricity!



The next time a lightbulb burns out in your house, replace it with an LED light bulb. They use 75% less energy than a regular incandescent light bulb! They also last years longer!



Start to remember to unplug appliances when they are not being used. Things like toasters, blenders, fans and portable heaters are actually still using tiny bits of electricity just by being plugged in!



On those days when it starts to get a bit chilly, rather than turning up the heat right away, try and put on an extra sweater or socks. If it's not going to be too cold, you can save energy by not running the heater.



Take advantage of all that sun! If you have the space, put up a line, and hang your laundry to dry outside in the sun. You will save energy by not running the dryer and your clothes will smell nice and fresh!



### Craft 3: Recycle your bulbs!

Light bulbs don't go out that often – but when they do, it can be fun to use them in an art project. You can find more activities that use recycled art in [Recycling Superheroes](#) and [Environmental Art](#).



#### You will need:

- A dead lightbulb
- String
- Glue
- Scissors
- Markers (permanent is preferred)
- Glitter or stickers (optional)



#### Instructions:

1. The next time a lightbulb goes out, ask your household to save it for you!
2. Carefully handle the lightbulb while doing your craft, so that it doesn't break.
3. Start by tying string in loops around the bulb. You can put down some glue to help it stay in place to make a loop.



4. While the glue is drying, you can draw a design on the bulb with your markers. I drew a globe since my lightbulb was very round! But you can be creative and try draw other things, like animals.



5. When you're all done, leave it to dry for an hour. Once it is ready you can hang your bulb around your house, or store it away as holiday decoration!
6. I added a little silver star sticker on my globe to show where home is!



### Taking it a step further:

With the help of an adult, see if you can transform a lightbulb into a terrarium. Here are some helpful instructions and ideas: click [HERE](#) for the link.



Thanks for conducting science with me for this Home Explorer activity from Umpqua Watersheds Education Program.  
Join me for new activities posted every week!

- Ms. Robyn

