

#308, 301 - 14 Street NW Calgary, Alberta T2N 2A1 TEL: [403] 230 | 1443 www.greencalgary.org

**Guess the Watts!** 

There are many appliances that we commonly use in our daily routines, but how much energy does each appliance use? This activity is a guessing game for the *average* relative energy consumption for common appliances in your home!

Suitable for ages: 7 and up

Curriculum links:

- Grade 1 to 6 Science Inquiry (https://education.alberta.ca/media/159711/elemsci.pdf)
- Grade 5 Electricity and Magnetism (https://education.alberta.ca/media/159711/elemsci.pdf)

## Instructions

What you will need checklist:

Scissors

## Instructions:

- 1. Cut along the lines of the worksheet provided to create individual rectangular pieces with different appliances on them.
- 2. Once all squares are cut out, try to put the appliances in order from requiring the most amount of energy (in watts) to the least.
- 3. Check your answers using the answer key below!

Post-Activity questions to consider:

- 1. Were you surprised with the answers?
- 2. Do you use the higher ranked appliances often? How about the lower ranked appliances?
- 3. Are there other alternatives you can think of instead of using these appliances?
- 4. What types of energy do these appliances utilize (non-renewable, renewable)?
- 5. How do you think these values would differ with energy efficient appliances? (Grade 5)



## Did you know?

Lightening is also a source of energy, it is potential energy that is transformed into light and sound!

## Share with us!

We would love to see photos of your low-waste crafts and activities at home. Feel free to tag us or hashtag #GreenCalgary in your social media posts! Find us here:





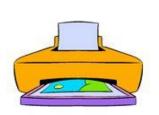








Dishwasher running for 1 hour



Printer printing for 15 minutes



Fridge nning for 24 hours



Laptop computer charging for 6 hours



Phone charging for 3 hours



Microwave heating for 30 minutes



Dryer drying clothes for 15 minutes



Incandescent light bulbs on for 5 hours



Hair dryer on for 10 minutes



LED light bulb on for 5 hours



Air conditioning cooling for 3 hours



Oven on for 1 hour



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# **Answer Key**

Order for energy usage of appliances (highest to lowest):

- 1. Dryer for 15 mins = 3000 watts
- 2. Oven for 1 hour = 2400 watts
- 3. Dishwasher for 1 hour = 1800 watts
- 4. hair dryer for 10 mins = 1500 watts
- 5. Microwave for 30 mins = 1200 watts
- 6. Air conditioner for 3 hours = 1000 watts
- 7. Fridge for 24 hours = 180 watts
- 8. Laptop when plugged in for 6 hours = 60 watts
- 9. Incandescent light bulb for 5 hours = 60 watts
- 10. Printer for 15 mins = 40 watts
- 11. LED light bulb for 5 hours = 10 watts
- 12. Phone charger for 3 hours = 5 watts

Information source: <a href="http://energyusecalculator.com">http://energyusecalculator.com</a>