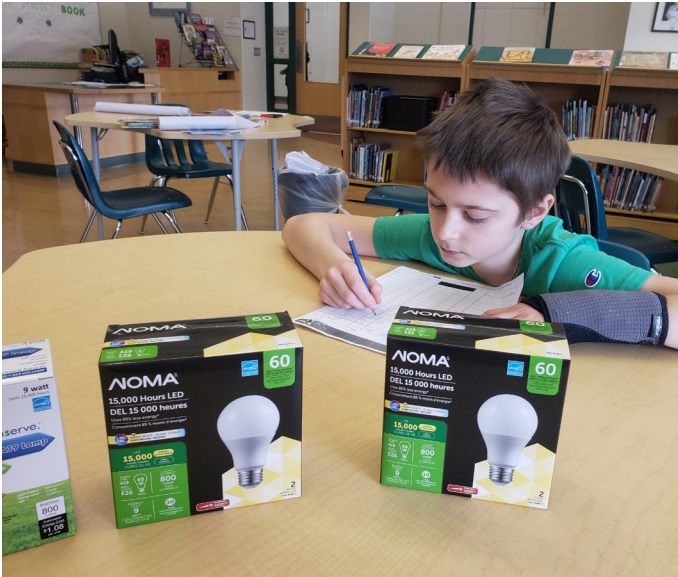


STUDENT ACTION FOR A SUSTAINABLE FUTURE

2019/20
SCHOOL YEAR

Classes were right in the busiest time of their projects, doing education and action, compiling data, and preparing for a large public Showcase of their work when schools closed in mid-March as a result of COVID-19. The Student Action for a Sustainable Future (SASF) committee are so proud of all of the work students were doing in the areas of energy, water, waste, food, transportation and biodiversity. Here are a few photos of some of this great, creative work. For more information on the SASF program: environmentalsociety.ca/programs/k-12-school-programs/sasf



5 Light Bulbs is an SES project in which students identify the 5 biggest energy using light bulbs in their homes and change them out with LED light bulbs provided by SES. Small groups of students in four SASF schools took on this challenge, changing out over 100 bulbs to save energy and money. They tracked the energy, the lights used, and the time the lights were on to change both the technology and their behaviour to reduce electricity and greenhouse gas emissions.

Waste audits at several schools showed that **single use plastics** make up a significant amount of garbage. These students were in the first step of their reduction project – finding out what kind of single use plastics students were bringing to school in their lunches every day. They created presentations and went class to class providing alternatives and solutions to this issue, focusing not only on the waste, but on the problem of plastic pollution in our waterways and the effect this has on the creatures that live in or near the water.



As a first step in learning about how to reduce food waste at their school by **composting organic waste**, these students made jars of compost and studied them over a month as the organic materials broke down into a rich soil amendment. (see their jars above)



With the topic of **food security**, these students focused on growing lettuce, carrots and other vegetables at school. They connected Indigenous traditional knowledge and sustainable practice to the preparation of the foods they fished, gathered and grew.



When it comes to transportation, there are two ways students help to reduce greenhouse gas emissions. They walk to school if they are able and they promote **Idle-Free Zones** near their schools. These students posted the signs as part of a plan to educate parents and caregivers to turn off vehicle engines.



Field trips make up an important part of the SASF program. Students visit many organizations and out of school spaces to investigate the topics of energy, water, waste, food, transportation and biodiversity. These students visited Saskatoon Light and Power to learn more about how SLP provides electricity to Saskatoon.

Once schools were closed, SES refocused education efforts on creating clear and simple learning resources for students to use at home with limited support from teachers. See the resources here: environmentalsociety.ca/resources/teachers-for-students-at-home

SAVE ENERGY! Bingo Game

E	N	E	R	G	Y
Compost food and yard waste	Take a 5-minute shower	Go for a walk on an evening	Use your bike instead of the car	Have an electronics-free evening	I saved energy by...
Hang up clothes to dry	Asked a friend to turn out lights when not in use	Run your dishwasher only when it is full	Turn down the heat 5 degrees at night	Unplug	Have a
No screen time family night	Close the blinds at night to keep the heat in	Walk to a destination	I saved water by...		
Turn off lights when not in use	Turn off an idling vehicle	Put recyclables in the blue recycling bin	Turn down the heat 2 degrees during the day		
Make your own granola bars and snacks	No single use plastics for 2 days!	Eat a garbage free lunch	Use a reusable water bottle		

Energy: Power x Time = Energy
 How can I reduce my electricity use, reduce greenhouse gas emissions, and save money?

STUDENT ACTION
 Take photos of the actions you are taking to save energy or keep a list or journal of what you are doing to save electricity. Share your actions with your teacher, family, and friends.

- I turn out lights when not needed**
 - Make use of natural light from windows.
 - If it is a sunny day only turn on the lights that you need.
 - Turn out lights when you leave the room.
 - Place a poster by each switch to remind your family to turn out the lights.
 - Use your journal to track how you reduced lighting use over 3 days.
- I unplug stuff that's not in use**
 - Phantom or standby power** is the power a device uses even when it is turned off. It is using some power if it has ... a clock, a remote control, a visible light when not in use, it is programmable, it is instant on, or it is a SMART device.
 - Use a power bar, to make it easier to turn devices on and off.
 - By reducing phantom load by 50% the average home saves:
 - power (350 kWh/y)
 - greenhouse gas emissions (210 kgCO₂e/y), and
 - money on utility bills (\$40/y)
 - Make a list of all the things in your home that use phantom power. Identify the ones you can unplug.
- I change an old light bulb for a new LED light bulb**

Compare the 2 bulbs:

Power	x Time	= Energy
40 Watt incandescent light bulb	x 5h/d	= 300 Wh/d
300 Wh/d x 365 d/y = 109,500 Wh/y/1000 kWh = 109.5 kWh/y		
109.5 kWh x 0.6 kgCO ₂ e = 65.7 kgCO ₂ e/y		
9 Watt LED light bulb	x 5h/d	= 45 Wh/d
45 Wh/d x 365 d/y = 16,425 Wh/y/1000 kWh = 16.43 kWh/y		
16.43 kWh x 0.6 kgCO ₂ e = 9.9 kgCO ₂ e/y		

W = watt h = hours d = day y = year
 kg = kilogram CO₂e = carbon dioxide equivalent