

**OPG Grade 1
Student Guide**



**LIVING
POWERFULLY**



Student's Name:

**ONTARIO POWER
GENERATION**

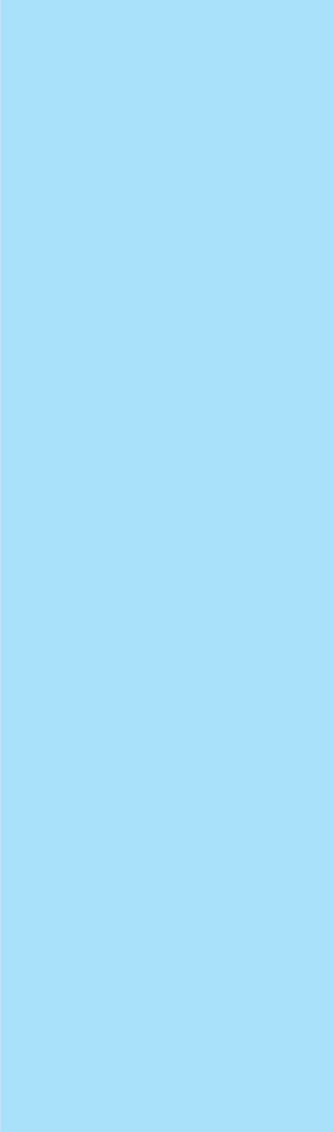
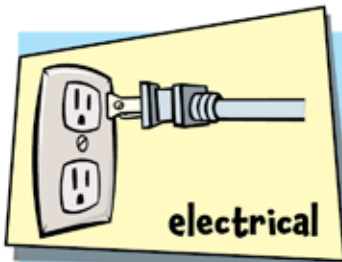


What are some sources of energy?

What makes things happen?

Cut out the pictures your teacher has given you.

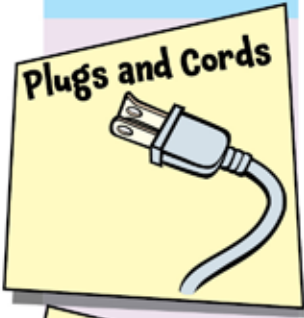
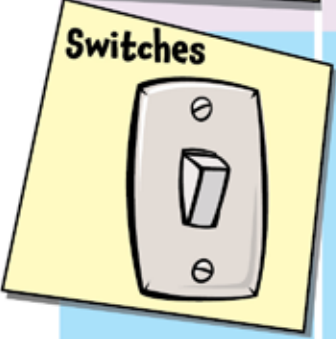
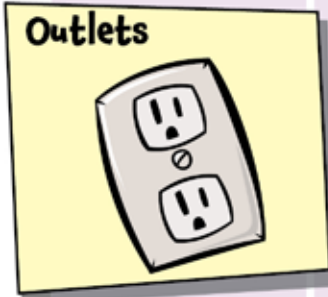
Paste them in the column under the energy source that makes them happen.



How do we know something uses electrical energy?



Make a tally for each plug, switch or outlet you find.

Features	Classroom	Library	Computer Area	Gym
 Plugs and Cords				
 Switches				
 Outlets				

What I learned about plugs, switches and outlets:

Lesson
2

How do I know something uses electrical energy?



How does electrical energy work?

Make the light bulb light up. Draw in the wires.

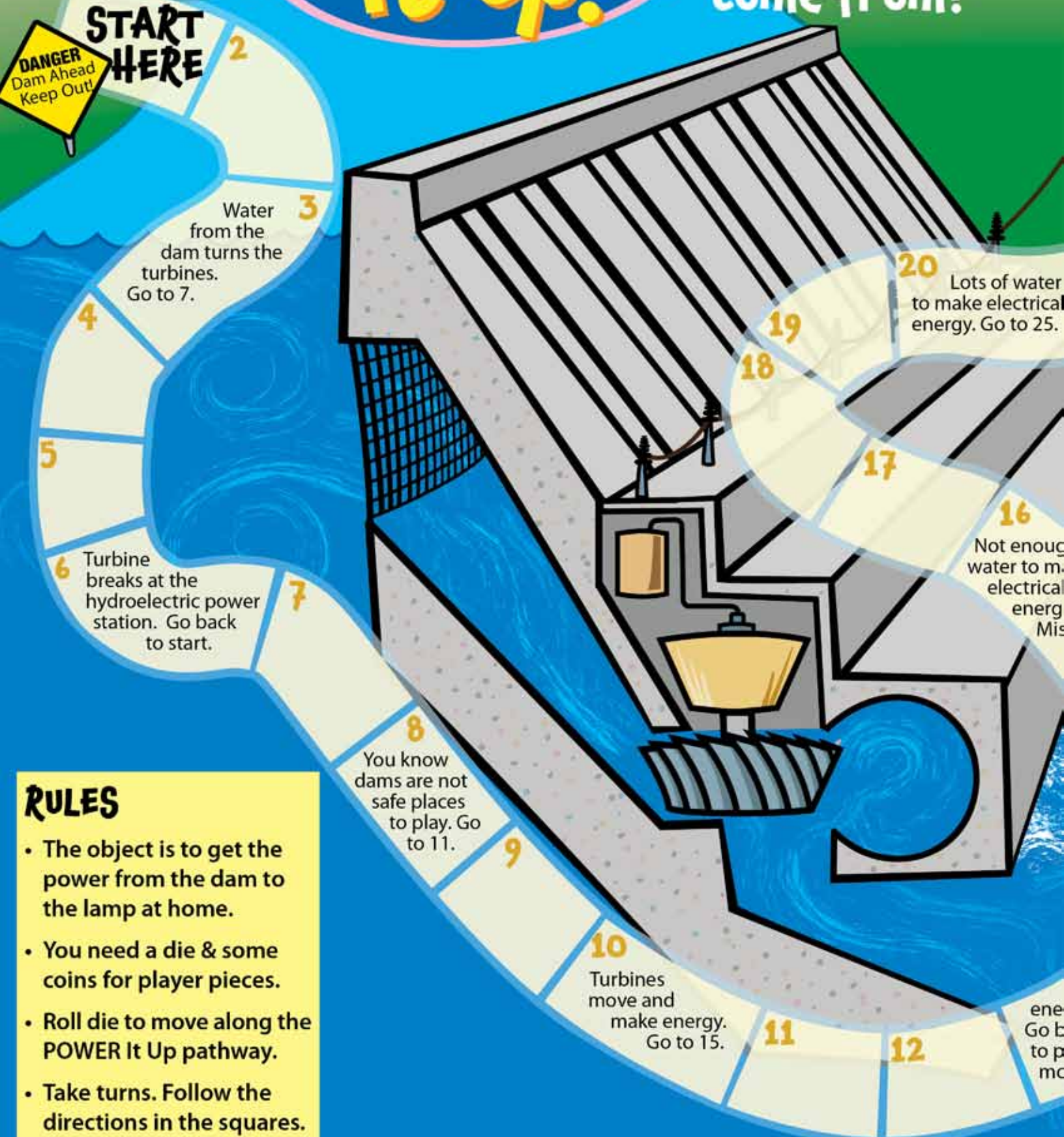


Make the light bulb light up. Draw in the wires.



POWER It up!

Where does electrical energy come from?



RULES

- The object is to get the power from the dam to the lamp at home.
- You need a die & some coins for player pieces.
- Roll die to move along the POWER It Up pathway.
- Take turns. Follow the directions in the squares.



ity

21

22

23

24

25

26

27

29

28

30

31

32

33

34

35

This is a power substation. Go to 30.

The hydroelectric power station gets new equipment to make more electrical energy. Go to 29.

Electrical wires go underground in this part of town. Go to 32.

A car has knocked over a hydro pole. Go back to 29.

You know to stay away from power lines because they are dangerous. Go to 34.

Ooops! The light switch is off. Miss a turn.

FINISH Home

Well done!
You have POWER!

h
ake
y.
s a turn.

15

14

13

Demand for electrical energy is high! Go back to 11 to produce more.

What items in my home use switches?

POWER Bingo

Find these items with switches on them in your home. Draw your own items in the blank spaces provided. Does each item have a on/off switch?

P O W E R

Toaster



Blender



Fridge



Stove



Radio



Microwave Oven



Fan



Dishwasher



Computer



Television



Hair Dryer



Free Switch



Vacuum Cleaner



DVD Player



Lamp



Coffee Maker



Electrical Panel



Washer



CD Player



Overhead Lights



Dryer



Mixer



What time of the year do we use the most electrical energy?



Spring



Summer



All year round




Winter

Fall



Lesson 5

What time of day do I use the most electrical energy?

Put a  in the column to show what electrical items you and your family use at each time of day. Draw your own item in the blank space provided.

	Breakfast	Morning	Lunch	Afternoon	Supper	Evening
 Toaster						
 Coffee Maker						
 Microwave Oven						
 Stove						
 Refrigerator						
 Lights						
 Washer and Dryer						
 Vacuum Cleaner						
 Computer						
 Television						
 DVD Player						
						
How many for each time of day?						

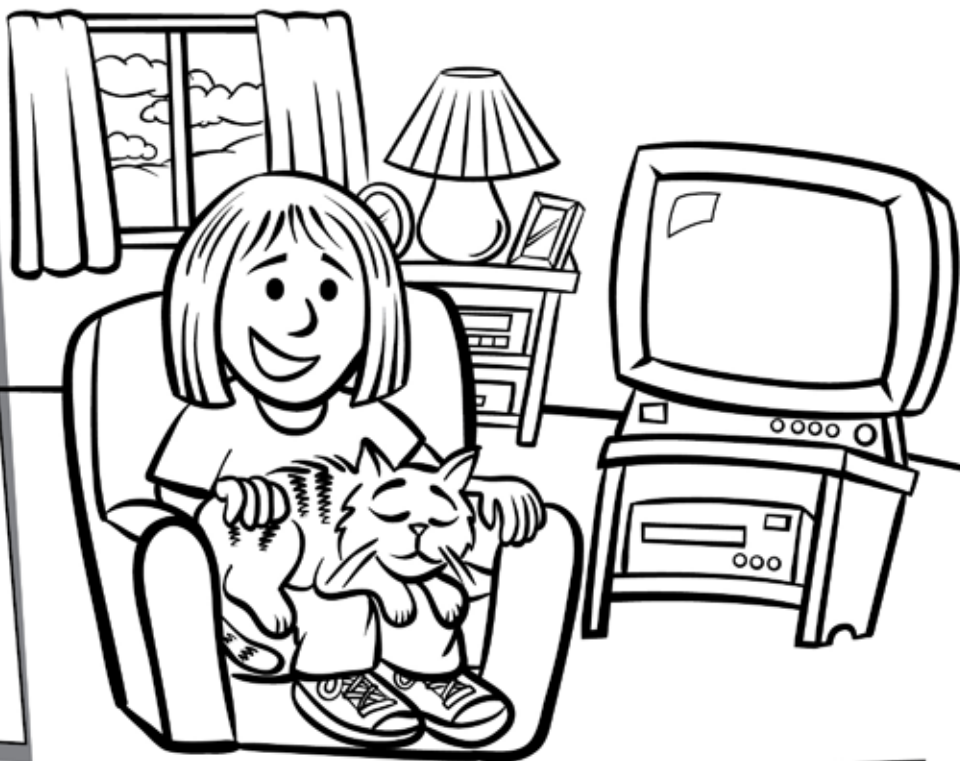
The POWER is On!

Student reflection page



What is power used for in my community? Write or draw a picture. After you have finished, colour the picture below.

In my home, we need electrical energy for...



In the grocery store, they need electrical energy for...

In the hospital, they need electrical energy for...

OPG Education Program

Ontario Power Generation (OPG) is a company that makes electricity for our homes, businesses, and everywhere else power is needed. Without electricity, we wouldn't be able to use a computer, watch TV, or even turn on the lights.

Each year, OPG's 65 hydroelectric stations, 3 nuclear stations, 5 thermal stations, 2 co-owned gas-fired stations and 2 wind power turbines produce about two-thirds of Ontario's electricity needs.

With our planet's well-being in mind, OPG is committed to becoming a sustainable development company. This means always working to improve technology in a greater effort to:

- Protect the world we live in
- Conserve energy by using resources efficiently
- Contribute to local communities
- Work safely, and operate our facilities in an open and environmentally responsible manner

For more information, visit
www.opg.com/learningzone



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