THE CHALLENGE:

Wind power is a green energy that is generated from the wind. It is considered a renewable resource because there will always be wind on Earth. Wind turbines harness the power of the wind to make electricity.

Your challenge is to create a pinwheel and discover how wind speeds affect your creation. Details found here.

~Create, Test, Improve.

~STEAM TEAM

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#AffordableAndCleanEnergy

Learning Activities

Language Arts:
** For journal tips, watch this video on How to be a Field Scientist

Pick 3 items off the checklist at the bottom of the page to help reduce your impact on our planet. Write your 3 goals into your journal and keep track of your progress. Can you think of another way to be eco-friendly?

Listen to this true story about "The Boy Who Harnessed the Wind" here. Draw a picture in your journal of your favorite part of the book.

Numeracy:
Use the wind from a hair dryer or a fan to blow three different sized spheres as far as you can from a starting line. Measure the distance each sphere travels with spoons, your shoe, cans, or socks.

Science/Social Studies:

It's a bird? It's a plane? It's Superman? No, it's…clouds! Spend some time outside observing the clouds in the sky. What direction are they moving? What shapes do you see? What do these peaceful observations make you feel? Wonder?

The Arts:
Wind can make music too! Try making a kazoo using a cardboard tube, a rubber band, and some waxed paper or a plastic grocery bag. Instructions can be found here. Play a beautiful tune for your family.

Earth Day Checklist

- Turn off lights
- Reuse
- Recycle
- Borrow
- Short showers
- Have a green thumb

- Start a compost bin
- Pick up garbage
- Use your bike
- Collect rainwater for your garden

Issue 2 Answer: Potatoes, carrots, radish

THE CHALLENGE:

Wind power is a green energy that is generated from the wind. It is a renewable resource because there will always be wind on Earth. Wind turbines harness the power of the wind to make electricity.

Your challenge is to design and create a kite that will fly using the power of wind.

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Learning Activities

Language Arts:

** For journal tips, watch this video on How to be a Field Scientist

Tornadoes are rare and powerful weather events. Do some research to answer these questions: How do tornadoes form? Where do they most frequently take place? How do tornadoes affect people?

Listen to the true story: "The Boy Who Harnessed the Wind" and write about your favorite part of the book. Search for more interesting books about "Wind Power" on Epic Books.

Numeracy:

Northern New Brunswick often has strong winds during the winter months. Sometimes the wind is so strong it will blow large items from one yard to the next or even 500 meters or more away! Go for a walk with an adult to measure 100m, 500m, and 1km from your house.
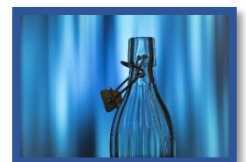
Science/Social Studies:
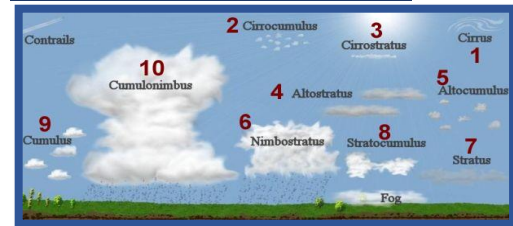
Go outside and observe the clouds. Sketch them in your journal and try to classify them. What direction are they moving? What do they make you wonder?

The Arts:

Wind can make music too! Try filling up 3 identical narrow-necked bottles with water at varying levels (¼, ½, and ¾). Touch your lower lip to the edge of the bottle and gently blow over the opening. How do the notes differ? Try with other water levels or bottles. Invent a beautiful tune!

Earth Day Checklist

- o Turn off lights
- o Reuse
- o Recycle
- o Borrow
- o Shorter showers
- o Have a green thumb
- o Start a compost bin
- o Pick up garbage
- o Use your bike
- o Collect rainwater for your garden

Issue 2 Answer: Purple Violet

THE CHALLENGE:

Wind power is a green energy that is generated from the wind. It is a renewable resource because there will always be wind on Earth. Wind turbines harness the power of the wind to make electricity.

Your challenge is to build an anemometer to measure wind speed and direction.

Check out this site for tips!

Think about how you could take this a step further!

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~STEAM TEAM

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Learning Activities

Language Arts:

**Check here for tips on journaling

Read more about Wind Energy from The Need Project. Take notes in your journal and see if you can complete the Wind crossword!

Check out this TED TALK from William Kamkwamba, a 13-year-old boy who changed lives in his village by building a windmill. Search for information on another young person who is changing the world for the better.

Numeracy:

The table below is the 2019 monthly average wind speed for Bathurst, NB measured by an anemometer in kilometers per hour.

Find the mean, median, and mode.

Click HERE for help.

Month	Avg. Wind Speed km/h
January	11.7
February	14.6
March	13.7
April	14.5
May	11.6
June	11
July	9.1
August	9.9
September	12.7
October	11
November	15.6
December	16.1

Science/Social Studies:

Mackerel sky, mackerel sky, never long wet, never long dry.

Interview a grandparent or farmer or research 'Farmer's Almanac Proverbs'. Observe the clouds over a period of 5-7 days and record observations in your journal. See if the proverbs ring true!

The Arts: Wind can make some beautiful music! Make a wind instrument of your choice using materials around your house (Ex. Musical bottles, kazoo, pan pipes). Invent a beautiful tune and play it for your family!

Earth Day Checklist

- Turn off lights
- Reuse
- Recycle
- Borrow
- Shorter showers
- Have a green thumb
- Start a compost bin
- Pick up garbage
- Use your bike
- Collect rainwater for your garden

Issue 2 Answer: Chlorophyll is the green pigment that is necessary for plants to convert carbon dioxide and water, using sunlight, into oxygen and glucose.