Clean Air Day

Move. Play. Learn.

Activity Kit

Fun, creative, and educational activities for kids, youth, adults, and families.

What you'll find in this kit

Move, play and learn with this set of activities, games, and crafts. Learn about active transportation, health, and environmental stewardship.

Choose one, or do them all!

Each activity includes simple steps or instructions, a list of supplies or materials you will need, and examples for inspiration.

- Clean Air Day Pledge
- Bubble-ology: The Science of Bubbles
- Walking Across Canada
- Hit the Road: Stroll or Roll
- Play Zone: Run, Jump, Romp
- Clean Air Game: Keep your air clean
- Local Food = Clean Air
- Spring Scavenger Hunt
- Discovering Wind Speed
- Reduce, Reuse, RECYCLE
- Air Quality and Pollution: Understanding Clean Air
- Air Pollution Experiment
- Having a Hoot: Keeping birds safe

green ACTION centre

Clean Air Day

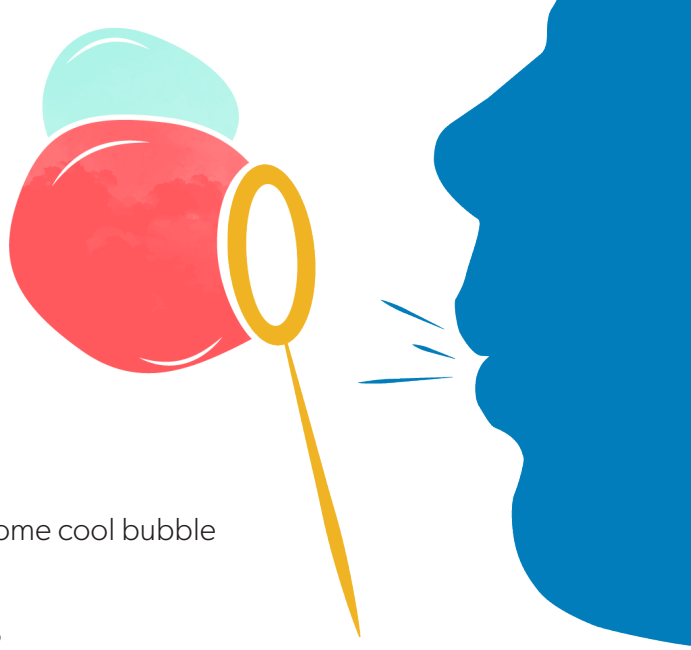
PLEDGE

I pledge to...

What's something you can do that's good for your body or the planet?

Clean Air Day

Bubble-ology
The Science of Bubbles



Learn all about BUBBLES
Make bubbles, build a wand, and see what bubbles are all about with fun experiments!

What you need
Bowl
Water
Dish soap
Household items (see Step 2)
Tape, white glue, or hot glue

Getting Started
VIDEO - BUBBLE-OLOGY
Watch this video to learn what bubbles are, and see some cool experiments you can do with your bubbles.

Step 1
Make the bubble solution using the easy bubble recipe.

Step 2
Make your own bubble wand! Use items from around the home for the wand and loop, and glue or tape them together. Try making two different types and see what one works best.

Handle Material Ideas
Pencils, used plastic straws, paint brush, stick

Loop Material Ideas
Beverage container rings, yoghurt containers cut into thin pieces, old wire coat hangers, etc.

Step 3
Make bubbles and do some cool bubble experiments!

Can you carry a bubble?
What's the biggest bubble you can make?

Bubble Recipe
6 cups water
1 cup dish soap
1 TBSP vegetable glycerin OR ¼ Cup honey or corn syrup (optional)

1. Pour the water, dish soap and glycerin (if you have it) together in a large container or bowl.

The glycerin/honey will help the bubbles last longer.

2. Mix carefully, trying to not get any bubbles or foam.

3. For strong bubbles, let it sit for 4 - 8 hours. Too excited to wait? You can use them right away.

Walking Across Canada

Cross the country together

Stay fit, and have fun

Challenge your community (students, teachers, individuals and families) to collect footsteps or kilometers on Clean Air Day or throughout the month to travel from one end of the country to the other!

Compete as a family, as a classroom, or in a group. The bigger the group, the better!

What you need

A chart to track distance (see example on next page)
A pedometer (optional)

How To Walk Across Canada

With a pedometer: Walk 1km with your pedometer (2.5 laps around a track, or calculate it on Google Maps). Multiply your step count by the total kms to cross Canada to find out the total amount of steps you will need.

Without a pedometer: Track your distance on each walk or bike ride and add it up throughout the day or month to find your total! If you need to guess, the average person can walk 5km or bike 20km in an hour.

While 7428km seems like a lot for one person, **it gets easier when you share the distance!** Divide the total distance by the number of people participating to determine how much walking or biking each person has to do.

Total distance: 7428km!

FROM	TO	DISTANCE
IQUALUIT, NT	YELLOWKNIFE, NWT	2200km
YELLOWKNIFE, NWT	WHITEHORSE, YT	2704km
WHITEHORSE, YT	VICTORIA, BC	2763km
VICTORIA, BC	VANCOUVER, BC	66km
VANCOUVER, BC	EDMONTON, AB	1244km
EDMONTON, AB	REGINA, SK	764km
REGINA, SK	SASKATOON, SK	256km
SASKATOON, SK	WINNIPEG, MB	829km
WINNIPEG, MB	THUNDER BAY, ON	715km
THUNDER BAY, ON	TORONTO, ON	1384km
TORONTO, ON	MONTREAL, QC	539km
MONTREAL, QC	QUEBEC CITY, QC	270km
QUEBEC CITY, QC	FREDERICTON, NB	586km
FREDERICTON, NB	HALIFAX, NS	346km
HALIFAX, NS	CHARLOTTETOWN, PEI	232km
CHARLOTTETOWN, PEI	ST. JOHNS, NL	1294km

Walking Across Canada

Cross the country together

Here's a chart to get you started!
Print this off or make your own

DATE	NAME	NUMBER OF STEPS OR KM	TOTAL DISTANCE COVERED

Hit the Road

Go for a Stroll or Roll

Explore your neighbourhood

See new places or visit a favourite place. Enjoy being outside!

What you need

Shoes
Map (optional)
Scooter, skateboard, rollerblades, or anything that rolls (optional)

Getting Started

Pick a place you want stroll or roll to (on foot of with your bike, scooter, skateboard, segway, rollerblades, wheelchair or anything that rolls).

Use Google Maps to look at routes that are good for walking and biking. Find bike lanes and walking paths near where you live!

Step 1

Go outside, and start exploring!

Step 2

Make your walk exciting and fun with walking games!

Get more ideas from PartcipACTION.

Walking Games

Follow the Leader

Whoever is "it" gets to decide **how** everyone will walk – like a monkey, a kangaroo or a bear, and **where** the group walks – across rocks, along low retaining walls or other low to the ground structures.

I Spy

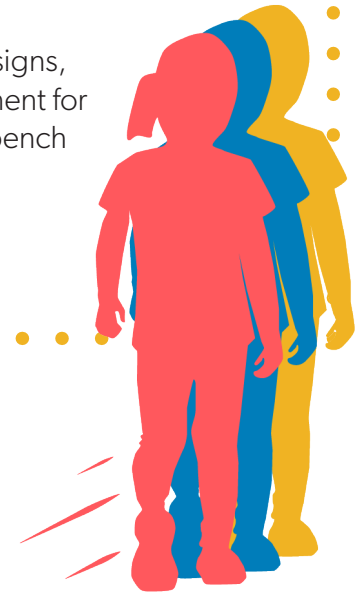
I Spy is a classic! The person who is "it" chooses an object within sight of all the walkers and says, "I spy, with my little eye, something that … " and give a clue, colour, shape, texture or use, for what the object might be. Whoever guesses the object is "it" next.

Catch or Kick

Take a ball with you while you walk and toss or kick it from one walker to another! If walking along a path or trail with lots of space, kick the ball ahead and have the next person chase it and kick it further.

Find the Alphabet

Find the alphabet from A to Z. Finding street signs, things in yards, or parts of the urban environment for each letter of the alphabet. Like apple for A, bench for B, and Century St for C.



Play Zone

Run, jump, romp!

Shake it off

Get moving and breathe in some sweet fresh air!

What you need

Comfortable clothing
Running shoes or sneakers (optional)

Walking Stilts

Make your own stilts with some rope and old buckets.
The larger the stilt, the more tough the challenge!

Materials

Handle: string, old rope, shoelaces, or skipping ropes
Stilt: Paint cans, buckets, or pails
Drill or scissors

Step 1

Cut two handles that are the length of your wingspan
(arms stretched out, fingertip to fingertip)

Step 2

Cut or drill two holes in the side of the stilt (can, bucket, or pail). Put the end of the handle through the hole, and tie a large knot

Step 3

Stand on top of both stilts. Grab onto the handles, and start walking!

Get more info from DIY Walking Stilts for Kids

Obstacle Course

Transform your living room or backyard into an obstacle course!

Some things you may want to use

Pillows
Chairs
String
Small trampoline
Anything you want to hop, crawl, climb or run around

Set-up

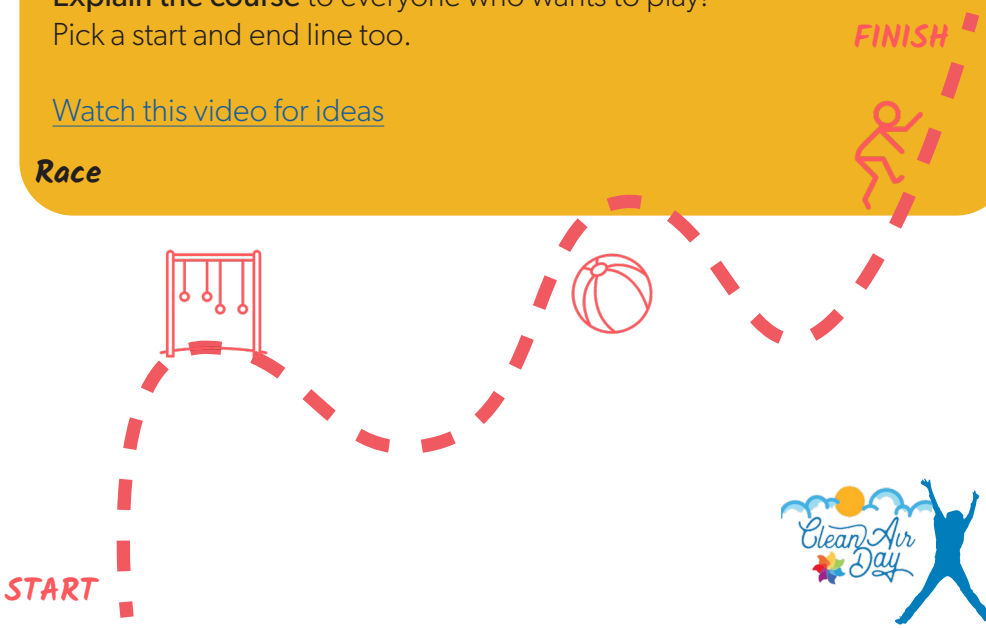
Create a course with different challenges

Some thinks you may want to include: jump on a small trampoline, walk along a line or balance beam, or crawl through a tunnel. Be creative, and think outside the box!

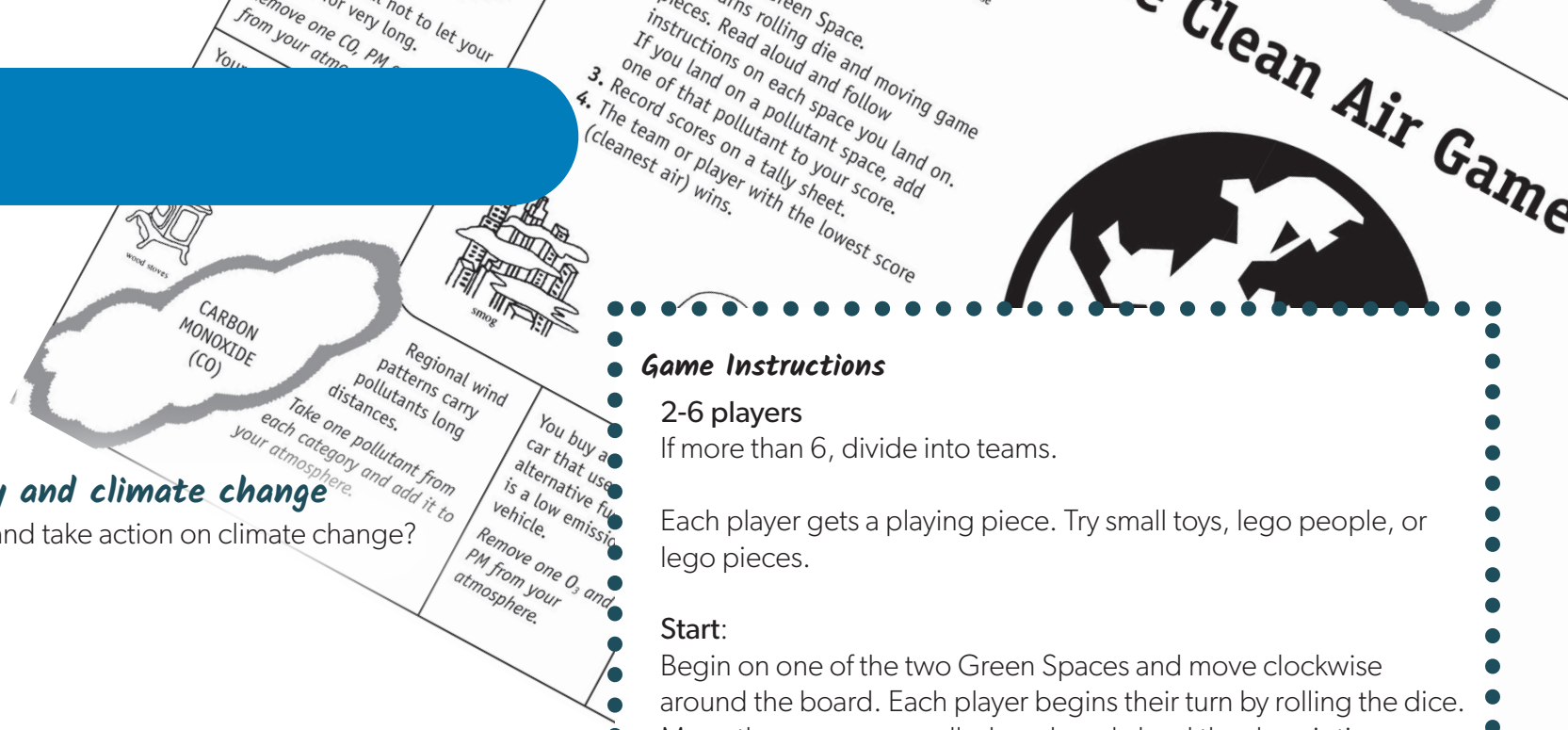
Explain the course to everyone who wants to play!
Pick a start and end line too.

Watch this video for ideas

Race



Clean Air Game
from Green Teachers



Learn about air quality and climate change

Can YOU keep our air clean and take action on climate change?

What you need

Paper
Game board
Four (4) Player pieces
Fifteen (15) point peices, per player
One (1) dice

How to Play

1. Get the game board from greenteachers.com (or make your own!)
[Download Game Board PDF]

2. Read the instructions
Simple instructions here

Get the full detailed instructions:
greenteacher.com/the-clean-air-game/

3. Start playing!

Game Instructions

2-6 players
If more than 6, divide into teams.

Each player gets a playing piece. Try small toys, lego people, or lego pieces.

Start:
Begin on one of the two Green Spaces and move clockwise around the board. Each player begins their turn by rolling the dice. Move the spaces you rolled, and read aloud the description on that space. Add or remove pollutants from your atmosphere as directed.

Scoring:
Players keep track of their own scores. If in teams, only the total team score is what matters. The team or player with the lowest score (cleanest air) wins the game.

Keep score on paper, or use point peices (peices of cheerios, dried fruit, chips, nuts, etc). These peices represent pollution.

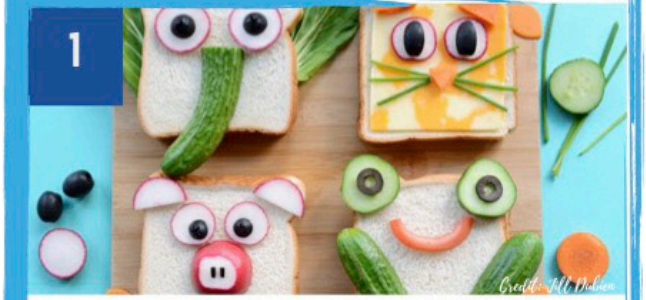
Each player starts the game with 15 pieces, a handful is placed in the center of the game. To remove pollutants, players eat the cereal pieces in their air. To add pollutants, they take pieces from the center of the board and add them to their own pile.

Local Food = Cleaner Air

Choose activities below to discover how buying local food can help clean our air.

Local food is food that is made in Manitoba.
Clean air is air without chemicals and harmful gases.

1

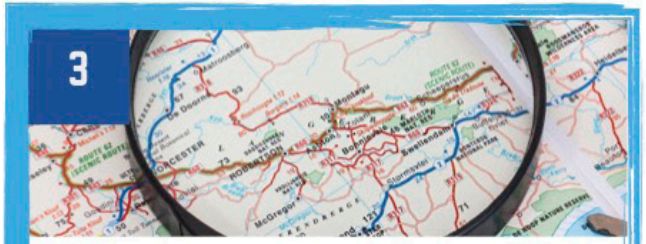


FOOD ART: Make someone lunch with as many local foods as possible but the challenge is to arrange the food so it looks like a face or an animal.

2

VIDEO: An easy way to get local food is to go to a farmers market. Watch this FRESH story to learn more about Manitoba's largest farmers' market and how it helps clean our air.
https://vimeo.com/72919971

3



FOOD MATH: The average plate of food travels around 1200km. How many km has your favourite meal travelled? (write down the main ingredients of your favourite meal, look at food labels to see where it is produced, then go to the milage calculator in Google maps and add up how many km the ingredients have travelled in your favourite meal.

4

INVESTIGATE: Food that is good for our air follows "The 5 N's Rule": Nearby, Naked, Nutritious, New Now, and Natural. Can you find a food item that follows each rule and one that follows all the rules.
Visit https://bit.ly/2W2VzsJ for more details about the rules.

5

GET OUTSIDE: Go for a walk around your neighbourhood and look around to find food in your community. When you get home make a list of all the things you found.

6

INTERVIEW and WRITE: Talk to a caregiver about food when they were your age or farmers in the family. Write about what you discovered - more details the better.

Clean Air Day Educate. Motivate. Activate. www.climatechangeconnection.org

CLIMATE CHANGE CONNECTION

Funding by: THE WINNIPEG FOUNDATION For Good. Forever.

Spring Scavenger Hunt
from Fort Whyte Alive

FORTWHYTE ALIVE AT HOME

Go outside and explore your environment.

See how many of these you can find!

Discover more at fortwhyte.org

Clean Air Day Scavenger Hunt

- [ ] Something that smells sweet
- [ ] A bird
- [ ] A leaf blowing in the wind
- [ ] A butterfly
- [ ] A cloud
- [ ] Birds chirping
- [ ] A bee
- [ ] A tree with needles
- [ ] Something brightly colored
- [ ] A feather
- [ ] A seed blowing in the wind
- [ ] A drey (squirrel's nest)
- [ ] Something that flies

FortWhyte Alive
HUMAN. NATURE.

Clean Air Day

Discovering Wind Speed
from Fort Whyte Alive

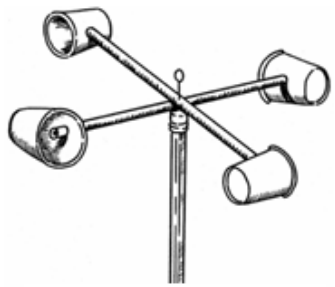
Feel the breeze

Wind speed is just one measurement that meteorologists use to gather data about the environment around them.

Use this chart to estimate the wind speed where you are, or follow the instructions below to build your own anemometer

What you need

4 paper cups of equal size and shape (rotating cups)
1 piece of wood, 15 cm square (or 6 inches) (base of instrument)
1 12" long large dowel rod
Two wooden 12" rulers (with a hole in the center), or 12" strips of wood and drill a hole in the center of each (arms of instrument)
Glue
2 nails
1 washer
8 thumb tacks
Tape
Hammer
Red marker or red paint
Stopwatch or clock with a seconds hand



Instructions

Download the full instructions below, and get building!

Handmade Anemometer Instructions

Send photos of your completed anemometer to Green Action Centre to be entered to win a prize!

The Beaufort Scale

Method of Estimating Wind Velocity

Beaufort Number	Wind Speed (km/h)	Seaman's Term		Effects on Land
0	>2	Calm		Calm; smoke rises vertically.
1	2-5	Light air		Direction of wind shown by smoke; wind vanes do not move.
2	6-11	Light breeze		Wind felt on face; leaves rustle; vanes moved by wind.
3	12-19	Gentle breeze		Leaves and small twigs in constant motion; wind extends light flag.
4	20-29	Moderate breeze		Raises dust, leaves, and loose paper; small branches move.
5	30-38	Fresh breeze		Small trees begin to sway.
6	39-49	Strong breeze		Large tree branches in motion; whistling heard in wires; umbrellas used with difficulty.
7	50-60	Moderate gale		Whole trees in motion; resistance felt walking against the wind.
8	61-73	Fresh gale		Twigs and small branches broken off trees; impedes walking.
9	74-86	High wind/gale		Slight structural damage occurs; slate blown from roofs.
10	87-100	Storm		Trees uprooted; considerable strutural damage occurs.
11	101-115	Violent storm		Widespread damage.
12	116-131	Hurricane force		Violence and destruction.

Image source: www.ikointl.com/blog/what-beaufort-scale

FortWhyte Alive
HUMAN. NATURE.

Recycling Activities
From Reycle Everywhere

Recycling Word Search

Find all of the recycling words listed at the bottom of the page in this word search. They can be forwards, backwards, up, down or diagonal.

Once you're done with the word search, find more Recycle Everywhere activities here

E	U	W	I	W	T	B	Z	S	B	S	I	V	K	T	K	R	P	B	N
C	A	N	C	Z	C	F	Q	Q	O	C	R	Q	I	P	E	Z	O	I	P
I	J	S	P	R	G	F	R	Z	Z	P	F	P	M	C	R	Y	O	N	S
Q	A	R	W	Q	E	A	R	X	I	W	G	Y	Y	E	H	Z	L	J	G
N	I	B	G	N	I	L	C	Y	C	E	R	C	N	E	D	D	S	A	D
T	W	J	T	H	I	K	J	W	B	R	L	I	I	B	Z	L	U	M	Z
N	N	O	A	M	N	U	N	M	I	E	A	Q	E	U	A	B	I	I	C
X	J	E	H	R	I	M	V	M	E	T	V	K	L	U	P	C	B	N	L
U	S	K	M	C	V	U	K	V	N	O	N	E	M	K	N	G	O	U	F
I	J	D	E	N	L	B	E	O	G	P	A	S	R	E	K	X	M	U	N
S	W	B	K	N	O	R	C	U	A	F	D	P	O	A	L	X	M	Q	J
T	O	J	B	N	Y	R	R	W	X	V	E	G	F	V	G	T	U	V	P
X	W	O	F	W	P	L	I	A	L	U	M	I	N	U	M	E	T	Y	Y
H	A	T	H	N	F	Q	R	V	R	V	V	M	T	N	C	Q	F	O	M
P	K	E	M	O	B	S	U	S	N	C	I	T	S	A	L	P	W	F	B
Q	R	C	Z	T	M	I	W	S	L	E	W	B	J	C	K	X	J	P	X
E	B	O	N	R	W	Z	S	M	D	H	F	N	Y	C	F	J	W	F	P
L	J	T	H	A	W	A	A	K	K	I	K	I	A	R	V	U	K	H	X
T	F	C	X	C	L	Y	L	K	M	V	Y	L	W	N	X	W	X	U	B

Air Quality and Pollution

Undestanding clean air

Health Canada Santé Canada

Air quality can be measured

There is a scale called the Air Quality Health Index (AQHI) that helps us understand if air is clean or dirty and how that affects our health. Watch these videos and then do an activity to learn about AQHI

What you need

Computer
Speakers
Internet

What are you breathing today? Video

Watch this video to learn about the Air Quality Health Index from Health Canada.

What AQHI is, and how to understand it.

Video>>

The Science of Air Pollution

Environment Canada has put together some resources and posters aboutair pollution. Learn about the different gases, and impacts on the environment and human health
Go to Environment Canada website>>

Air Quality and Weather Videos

These three videos from Environment Canada talk about how weather can affect air pollution.

"An upside down morning"- Thermal Inversions
Video>>
"A view on smog" - Topography
Video>>
"Far-reaching smog"- Long-range pollution
Video>>

An Upside-down Morning

Air Pollution Experiment

Find out what's in your air

When we look around we don't usually 'see' the air, so it can be easy to assume it is clean. In reality, air is made up of mostly invisible gases and particles, and it can be difficult to tell if the air is clean or polluted. Scientists can use complex sensors to determine what is in the air. In this experiment, we will make a basic sensor to detect particles in the air around us.

What you need

A piece of white or clear plastic (container lids or clamshell packaging from your recycling bin work great!)
Petroleum jelly
Blank white paper or surface
Tape (optional)

Instructions

1. Coat the top of the white or clear plastic with petroleum jelly

2. Identify a location where you want to test the air and find a place to put the plastic. If you want to test the air outside, you may have to tape your plastic to a heavier object so it doesn't blow away!

3. Leave your experiment out for at least 24 hours

4. At the end of your experimental time, collect the experiment and bring it inside. If you used a clear piece or plastic, place it on a white sheet of paper or a light coloured surface

5. Examine the top of the plastic for any particles collected. Try to identify what you see!

Source: education.com

BONUS

If you have access to a microscope and slides at your school, you can see your collected particles in even more detail!

Find out more here

Having a Hoot: Keeping Birds Safe
with Prairie Wildlife Rehabilitation Centre

Help keep birds safe with window painting

Here is a fun and great way to minimize bird window collisions to help keep birds safe!

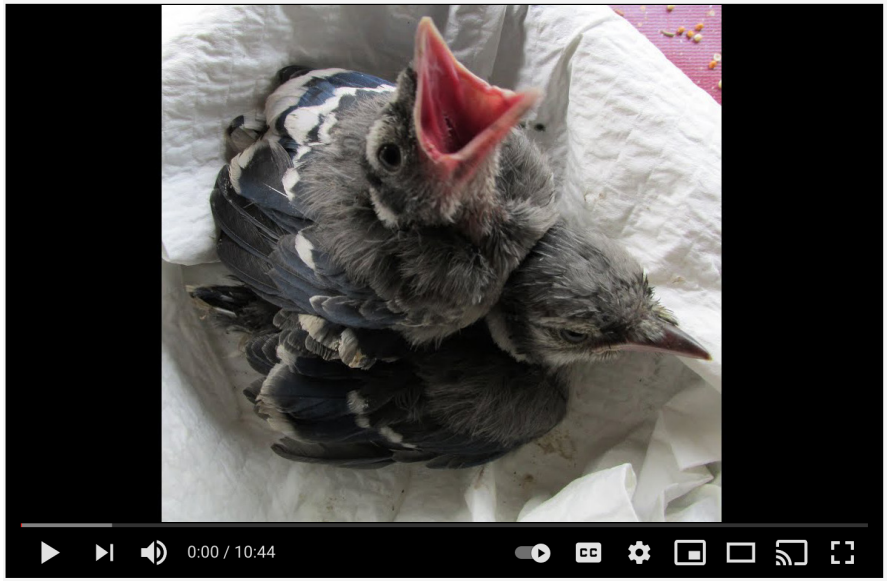
What you need

Bar of soap (or tempera paint that will wash off with water)
Paint brushes

How it Works

Birds fly into windows as they often see a reflection of trees. They are trying to fly towards the trees, without realizing that it's a window.

By painting with soap or washable paint, it breaks up the reflection and let's birds know that it is a solid surface that they can't fly through.



Talon Talk Thursday - All About Baby Birds

Watch this Talon Talk video to learn about baby birds – their stages of development and how they grow! Then do the Having a Hoot activity below

Instructions

1. If using a bar of soap - wet the bar of soap and work up a lather. This will be your 'paint'
If using paint, put it in a small container that is easy to hold.
2. Take your paint brush and dip it in the lather. You may find that rubbing the bar of soap with a bit of water on the paint brush works better for a lather.
3. Then on the exterior of your windows - start painting! It can be simple pattern like polkadots every 2 inches, or be creative and paint beautiful images. Just make sure that the majority of the window has a drawing or pattern.

Repeat on all your windows!

Prairie Wildlife
Rehabilitation Centre

Clean Air Day